

CHAPTER 5



“The *good* in our way of doing business revolves around the *good* of the planet. For us, the protection of the environment is primary goal.”



Gianluca Zulian
RSPP

THE ENVIRONMENT

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HIGHLIGHTS

100%
RENEWABLE
ENERGY

91%
RECYCLABLE
PACKAGING

-42%
REDUCTION
IN EMISSIONS

Scope 1 - compared to FY 2021/2022

-28%
CO2 EMISSIONS

Pedon ready-soups
vs. the fresh soup segment



MATERIAL TOPICS

- Energy Management
- Packaging
- Waste Management

SUSTAINABLE DEVELOPMENT GOALS

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5.1 Environmental Policy

The future of the planet is linked to the way we farm, produce, purchase, transport and consume food. Humankind's consumption is rapidly outstripping available resources and this makes it necessary to shift the focus onto the transformation of food production and consumer consciousness.

Pedon's goal is to contribute to **raising the efficiency of the food sector** – reducing its environmental impact – while at the same time **raising awareness in consumers and driving a new approach** throughout the value chain. Efforts in this direction draw from Pedon's Environmental Policy, which steers the company's underlying commitment to **supporting the sustainable transition**.

Specifically, Pedon works to prevent pollution and ensure the protection of the environment, while striving to continuously improve the organisation's environmental performance by minimizing the risks associated with its operations and the products it delivers.

THE COMPANY'S COMMITMENT:



Designation of a manager responsible for environmental management.



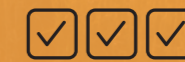
Compliance with current legislation and any voluntary agreements on significant environmental impacts.



Production control and monitoring of environmental aspects.



Targets for the continuous improvement of environmental performance.



Initiatives to minimise water consumption, energy use and waste production and for the prevention and management of environmental emergencies.

THE ACTION PLAN IS DIVIDED INTO 4 ESSENTIAL POINTS:

1. OPTIMISATION OF PRODUCTION PROCESSES

Reduce energy consumption and emissions through the adoption of more efficient technologies.

2. USE OF RENEWABLE ENERGY

Expand the use of sustainable energy to power production facilities.

3. WASTE REDUCTION

Minimise the waste generated by through the separate collection, recycling and reuse of materials.

4. AWARENESS AND TRAINING

Educate employees and partners on the importance of sustainability and environmentally-friendly practices.

ENERGY AND EMISSIONS

The energy transition is a fundamental step in countering climate change and building a sustainable future. As a complex and multifactorial process, it calls for international cooperation, public and private investments and changes in individual and collective behaviours.

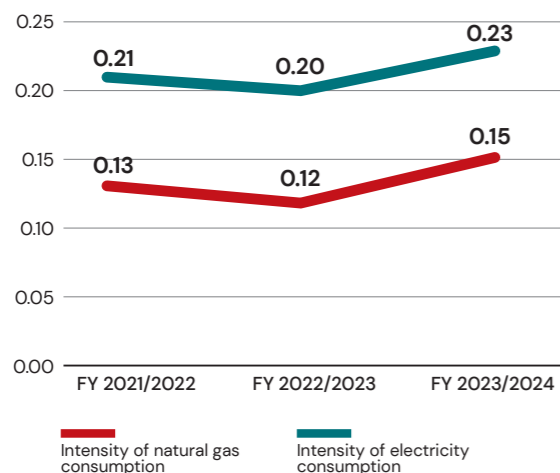
5.2 Energy Management

Pedon has embarked on a path of responsible energy management with the aim of mitigating the risks of potential system vulnerabilities and improving efficiency and resource consumption, starting with careful and constant monitoring.

ANNUAL ENERGY CONSUMPTION BY SOURCE (GJ)					
	Udm	FY 2021/2022	FY 2022/2023	FY 2023/2024	Variazione
ENERGY FROM NON-RENEWABLE SOURCES					
Natural gas	GJ	9,359.63	8,709.61	10,959.9	+17.1%
Diesel	GJ	2,672.22	1,894.64	1,741.33	-34.0%
ENERGY FROM RENEWABLE SOURCES					
Electricity from solar power		-	-	1,665.66	
Electricity purchased from renewable sources	GJ	14,806.07	14,352.11	14,158.09	-0.4%
Total	GJ	26,837.92	24,956.36	28,524.98	+6.2%

In the three-year reporting period, Pedon recorded an increase in fuel consumption for heating purposes. In particular, the company's **consumption of natural gas rose by 17%**, linked to significant business growth involving new processing technologies with a greater energy impact. With consumption constant, energy from renewable sources accounted for 49.6% of the **energy mix in the last reporting year versus 55%** in FY 2021/2022.

Energy intensity of electricity and natural gas consumed GJ/thousand pcs



Energy intensity is calculated as the ratio of electricity and natural gas consumption (GJ) to products sold.

The ratio shows an increase in natural gas consumption over the reporting period. The increase was driven by a change in the sales mix, as the company **expands rapidly in a market segment linked to technology** with a greater impact on energy consumption.

The energy intensity of electricity consumption showed no significant change.

The pathways towards a virtuous process of **responsible energy management** are:



SELF-PRODUCTION FROM RENEWABLE SOURCES

The evolution of Pedon's energy strategy towards greater energy self-sufficiency led to the installation in FY 2023/2024 of a new photovoltaic power station consisting of 2,403 panels placed on the entire extension of the Colceresa plant. With an estimated production capacity of 1,050,000 kWh, the power station enables the self-production of 30% of the company's energy needs at full capacity, reducing emissions by 556 tonnes of CO₂-eq. The performance of the plant is verified through a cloud platform for monitoring production values compared to expectations.



100% ENERGY FROM RENEWABLE SOURCES

In accordance with the principles and objectives described, renewable energy accounts for 100% of the remaining share of electricity consumption, purchased from certified renewable sources, in particular wind power. This choice underlines Pedon's commitment to supporting clean, green technologies that can contribute significantly to a carbon-neutral future.



ENERGY EFFICIENCY

Pedon has invested in a range of energy efficiency measures. They include the replacement of lighting systems with new LED-based solutions in offices and production areas, the implementation of a new compressor management system and the thermal insulation of the raw materials warehouse.

5.2

Energy Management

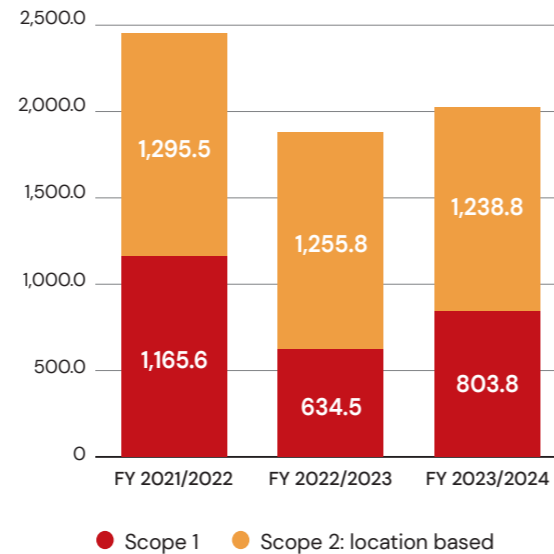
Air Emissions

The accurate reporting of emissions is a fundamental step towards alignment with international standards and climate goals, thus contributing significantly to global efforts to combat climate change.

Pedon is working towards the constant monitoring of direct (Scope 1) and indirect (Scope 2) GHG emissions associated with the reporting perimeter and relevant for the development of targeted mitigation strategies. Considering that the emissions generated by the supply chain will always be higher than those associated with its core business, Pedon is planning a second step for the measurement of Scope 3 emissions and setting of an action plan for their reduction.

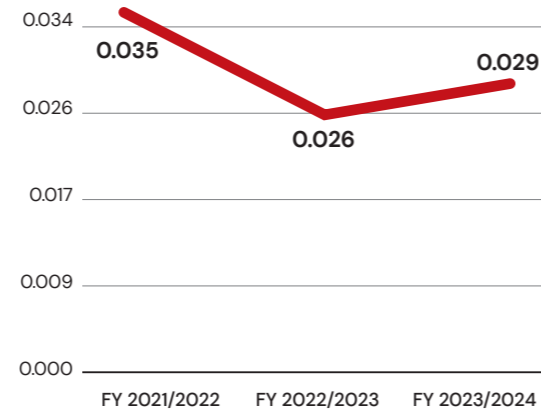
Scope 1 & 2 emissions - t CO2 eq

In FY 2023/2024, total Scope 1 and 2 greenhouse gas emissions generated by Pedon amounted to **2,042.4 tons of CO2-eq**. **Scope 1 emissions** accounted for **39%** of the total, while the remaining **61%** was made up of Scope 2 location-based indirect emissions connected with the purchase of electricity. Compared to FY 2021/2022, the company achieved a significant reduction in emissions: a **decrease of 31% for Scope 1 emissions and 4% for Scope 2 emissions**. In addition, thanks to the consumption of self-produced solar energy in FY 2023/2024, equal to 1,666 GJ, Pedon **avoided 145.75 tons of CO2-eq emissions**.



Emission Intensity

Pedon's **emission intensity** in FY 2022/2023 **dropped by 20%** compared to **FY 2021/2022**. This major improvement in performance was driven mainly by lower Scope 1 emissions, achieved thanks to the decrease in losses and consequent refills of refrigerant gases, and by lower Scope 2 (location-based) emissions.



Scope 1 emissions

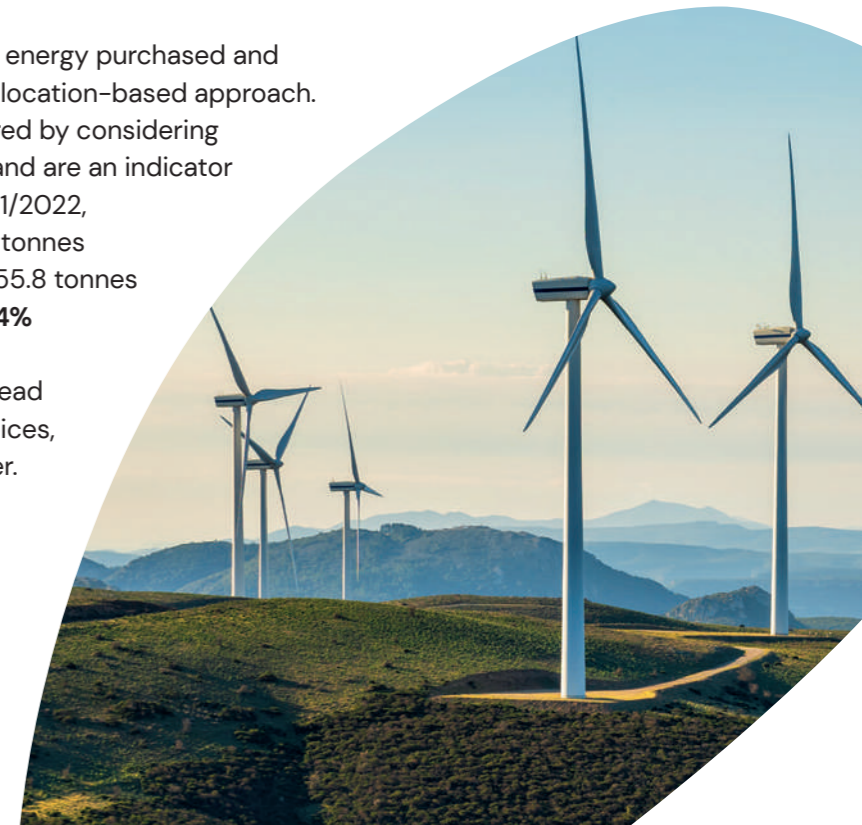
	FY 2021/2022	FY 2022/2023	FY 2023/2024
G-GAS	500.4	54.0	116.3
FUEL CONSUMPTION	185.1	133.7	120.5
NATURAL GAS	480.2	446.8	567

In FY 2023/2024, **Scope 1 emissions produced directly** by Pedon amounted to **803.8 tonnes of CO2-eq**, showing a slight increase on the previous year but a decrease compared to FY 2021/2022. The **decline** compared to FY 2021/2022 was mainly due to the reduction in refrigerant gas losses (-77%) and lower fuel consumption by the company fleet (-35%). The use of natural gas for heating also dropped in FY 2023/2024 compared to FY 2021/2022 (-7%). These improvements not only contribute to mitigating the climate impact of Pedon, but also to improving operational efficiency and promoting more responsible practices within the organisation.

Scope 2 emissions

	FY 2021/2022	FY 2022/2023	FY 2023/2024
ELECTRICITY FROM THE NATIONAL GRID - LOCATION BASED	1,295.5	1,255.8	1,238.8
ELECTRICITY FROM THE NATIONAL GRID - MARKET BASED	0	0	0

Scope 2 emissions generated indirectly by the energy purchased and consumed by Pedon were calculated using the location-based approach. Scope 2 **location-based** emissions are measured by considering the emission factor of the national energy mix and are an indicator of an organisation's energy efficiency. In FY 2021/2022, location-based emissions amounted to 1,295.5 tonnes of CO2-eq, falling in FY 2022/2023 by 3% to 1,255.8 tonnes of CO2-eq. In FY 2023/2024 they **dropped by 4%** compared to FY 2021/2022 to 1,238.8 tonnes of CO2-eq. Scope 2 market-based emissions instead reflect the company's energy procurement choices, based on the energy mix of the specific supplier. Since FY 2021/2022, these emissions have been equal to 0 since Pedon has opted for the purchase of **100% renewable energy** (wind power).



5.2

Energy Management

Life Cycle Assessment of Pedon Ready Meals

Life Cycle Assessment (LCA) is as a key tool for **analysing and measuring the overall environmental footprint** of food products, promoting more sustainable strategies throughout the entire life cycle of products.

This method enables the environmental footprint of the food industry to be measured in terms of emissions, resource use and sustainability.

Food consumption accounts for about 20–30% of total environmental impact. Although ensuring nutritional needs is essential, this poses a significant challenge to the environment, especially in Europe.

Life cycle studies have shown that the greatest impacts come from meat (beef, pork, poultry) and dairy products (cheese, milk, butter), with animal proteins – which make up 55–60% of the European diet – responsible for much of our environmental degradation. These products take up more than 75% of global agricultural land and generate about two-thirds of agriculture-related greenhouse gas emissions.

SOURCE: [https://www.europarl.europa.eu/RegData/etudes/STUD/2024/757806/EPRS_STU\(2024\)757806_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2024/757806/EPRS_STU(2024)757806_EN.pdf)

In this framework, Pedon has carried out an **LCA to compare the environmental footprint of the ready-made soups sold by the company and conventional soups** (sold in supermarkets in the “fresh food” section). The assessment aimed to measure the footprint of the entire production chain and identify virtuous actions and potential improvements in the production process. The study highlighted **significant differences** in both production processes and conservation methods, with consequent implications for the environment.

Pedon soups are sterilized in an autoclave and packaged in sealed doypack sachets so as to be stored at room temperature, thus eliminating the need for refrigeration during their storage for sale and by the final consumer. This consequently reduces the energy consumed for temperature control. “Fresh” soups are instead pasteurized and packaged in polypropylene trays with a plastic seal and cardboard band, requiring constant refrigeration at temperatures between +2°C and +6°C both in stores and in consumers’ homes.

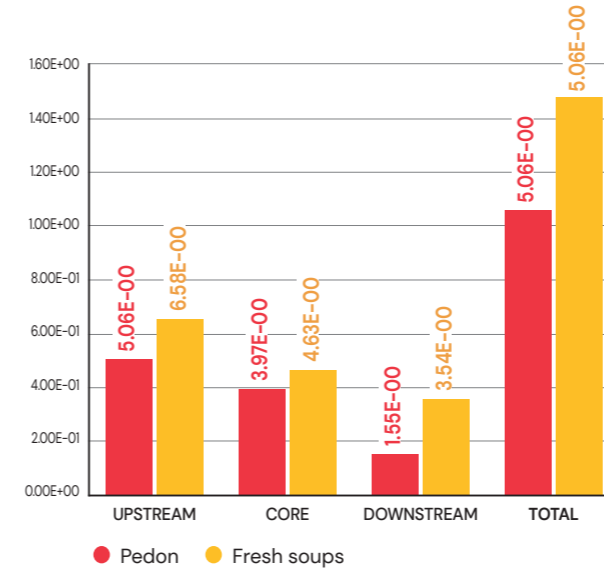
LCA Outcomes

The LCA study showed that **Pedon Soups** have an overall **lower environmental footprint** than fresh soups¹ at all stages of the life cycle. Looking at the **global warming potential (GWP)** of Pedon Soups, which can be stored at room temperature, **1.06 kg** of CO₂-eq is produced per kilogram of product, whereas **fresh soups**, which require refrigeration, **generate 1.47 kg** of CO₂-eq per kilogram.

For both Pedon Soups and fresh soups, **upstream stages were found to have the greatest environmental impact**, at 48% for Pedon Soups and 45% for fresh soups. These stages primarily concern the production of raw materials and packaging. Although both types of soup use the same basic ingredients, fresh soups generate **greater food waste**.

In addition, fresh soups require storage at a controlled temperature from the moment they are produced to the time of their consumption, entailing considerable energy consumption to guarantee storage temperatures.

Another important factor is **packaging**. Fresh soup packaging is heavier and consists of more materials, which increases their environmental impact. In contrast, Pedon Soups are packaged in much lighter and lower impact LDPE sachets, which helps to reduce the overall footprint of the product, making Pedon Soups a much more sustainable alternative.



¹ “Fresh soups” were studied as a virtual product, with an inventory model based on non-specific average data. The assessment of the impact of the different storage methods and waste of the two products involved assumptions based on best available knowledge, and not real data for the products.

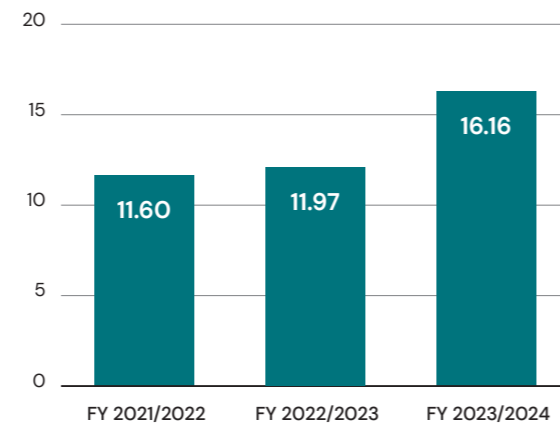
5.3 Water Resources

Given the company's growing use of technological processes for the steam cooking and transformation of legumes and grains, water has become increasingly essential in production operations.

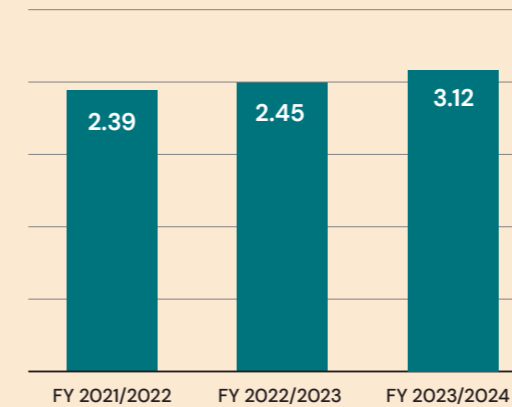
Pedon makes every effort to ensure the responsible and efficient use of water. Water use is carefully and constantly monitored, with the aim of minimising waste and ensuring that wastewater is treated and discharged in compliance with environmental regulations.

In FY 2023/2024, water withdrawals amounted to **16.16 ML**, up by 35% compared to the previous two years. Higher withdrawals were driven by the major growth in the ready-meals business, involving a technology that uses much higher amounts of water than packaging and pre-cooking technologies. For the production process, water is essential for soaking phases, in the generation of steam and for the cooling of the product. In addition, large amounts of water are used for cleaning equipment and machines inside the production facility. This process is essential to preserve high hygiene standards, prevent contamination and ensure that production takes place in a safe and clean environment.

Water Withdrawals - ML



In FY 2023/2024, water consumption, calculated as the difference between water withdrawals and discharges, amounted to 3.12 ML. Consumption was estimated by calculating the average amount of water incorporated into Pedon products, in particular on the two production lines dedicated to pre-cooking and cooking. Compared to the previous year (2.45 ML), water consumption rose by 27%, given that consumption, as calculated, is proportional to the annual output of the two production lines involved.



In relation to water discharges, the Pedon production facility has three drainage points into the civil sewerage network and one drainage point in the industrial sewerage network, all duly authorised.

WATER DISCHARGE	FY 2021/2022 (ML)	FY 2022/2023 (ML)	FY 2023/2024 (ML)	Variazione FY 2022/2023 vs FY 2021/2022
THIRD PARTY WATER RESOURCES	9,214	9,520	13,048	+41.6%

Pedon and ETRA S.p.A. regularly carry out analyses of discharges into the sewer, in accordance with the provisions of the Convention of 6 April 2022, which regulates Pedon's use of the consortium-operated sewer, thus ensuring compliance with environmental regulations and furthering the sustainable management of water. Water discharges are carefully monitored to check for the presence of certain substances, such as suspended solids and total surfactants, which must not exceed the limits set by Legislative Decree 152/06.

In **FY 2023/2024** there **were no cases** of substances in excess of the statutory limits. Wastewater resulting from the industrial process is treated as ordinary, non-hazardous wastewater.



5.4 Waste

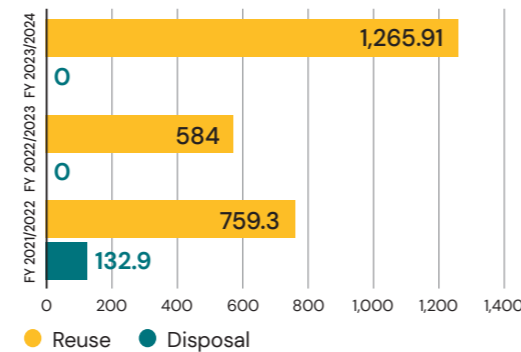
Sustainable waste management is a central pillar of Pedon’s environmental strategy. The Company is committed to minimising the production of waste and maximising the recycling and reuse of resources. The approach to waste management includes the separation and proper disposal of hazardous and non-hazardous waste, the promotion of circular economy practices and awareness-raising actions targeted at employees and partners to promote sustainable behaviours. The waste produced at Pedon facilities is collected and consigned to third parties for its management.

Main types of waste produced (t)

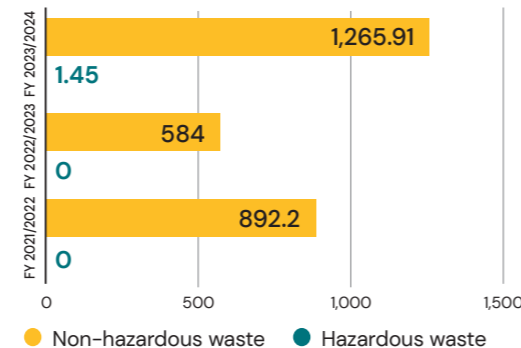
EWC CODE	TYPE	FY 2021/2022	FY 2022/2023	FY 2023/2024
150101	Packaging in paper and cardboard	153	145.33	186.1
150102	Plastic packaging	239	85.23	88.5
150103	Wooden packaging	4.3	4.5	5.0
150104	Metal packaging	0	110.22	0.0
150106	Mixed materials packaging	132	110.22	89.6
170405	Iron and steel	5.6	7.24	11.3
20304	Waste unusable for consumption or processing	356	145.33	219.2
150203	Absorbents, filtering materials, rags and protective clothing, other than those mentioned in 150202	0.9	0.199	0.5
170802	Gypsum-based construction materials other than those mentioned in 170801	1.4	0	6.3
020301	Sludges produced by washing, cleaning, peeling, centrifugation and separation of components	0	0	656.5

In **FY 2023/2024**, Pedon produced a total of **1,265.91 tonnes** of waste, an increase of 42% compared to **892.2 tonnes** in FY 2021/2022. The increase was due to the need to find alternative solutions for the management of water discharges following heavy rains that compelled the company Etra to stop discharging into the sewerage system, for which Pedon disposed of its washing sludge using tanks.

Waste by destination and weight (t)



Waste produced by type (t)



Pedon’s commitment to waste management is even more evident considering that in **FY 2023/2024** no waste at all was destined for disposal and hazardous waste made up just **0.1%** of the total.

Hazardous waste consisted of insulating materials that contain harmful substances.

Environmental Certification UNI EN ISO 14001:2015

In **FY 2022/2023**, Pedon obtained **UNI EN ISO 14001:2015 certification**, an internationally recognised standard for environmental management systems (EMS). This standard promotes the continuous improvement of the organisation’s environmental performance, with proactive measures adopted to minimise Pedon’s environmental footprint.

KEY POINTS ENVISAGED BY THE STANDARD.



5.5

PACKAGING

Packaging plays an essential role in the storage of products to protect and preserve all their flavour, quality and safety. Considering the life cycle of packaging, Pedon is committed to managing its impact on the environment.



5.5

Packaging

In FY 2023/2024, Pedon used a total of **1,821.59 tonnes of packaging**, of which 91% was made up of renewable materials, marking an improvement of +7% compared to FY 2021/2022. At the same time, the company has been scaling back its use of **non-renewable materials**, which fell by 11% over the three-year reporting period. The numbers witness to Pedon's commitment to optimising the use of films, with a focus on recycling and the search for new solutions pursued with its partners in the sector.

Packaging (t)	FY 2021/2022	FY 2022/2023	FY 2023/2024	Variazione FY 2021/2022 vs FY 2023/2024
NON-RECYCLABLE MULTI-MATERIAL PLASTIC	176	188	157	-11%
RECYCLABLE MONO-MATERIAL PLASTIC	125	141	142	+13%
PAPER AND CARDBOARD	1,420	1,540	1,504	+6%
"CRUSH" PAPER CARTONS FROM PULSE WASTE	20	17.37	18.59	7%
Total	1,741	1,886.37	1,821.59	+5%

In response to customer requests showing a preference for some packaging solutions over others and where the transition is economically sustainable, Pedon is committed to:

Using paper and cardboard from sustainably managed forests

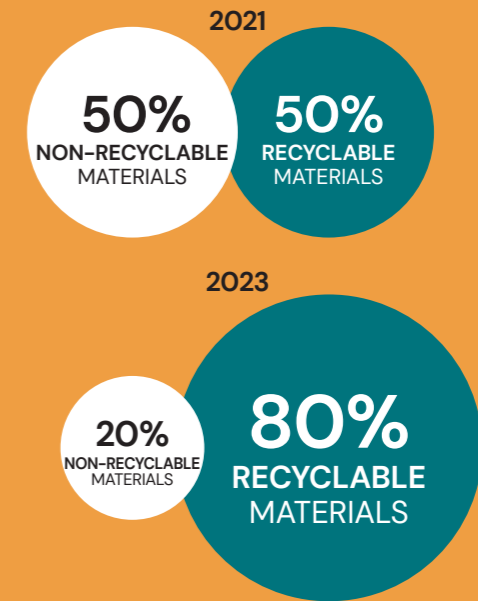


All Pedon branded paper and cardboard packaging complies with the FSC (Forest Stewardship Council) standard. This international certification guarantees that paper-based products or derivatives come from responsibly managed forests and certifies that the entire production process, from forest management to processing, takes place according to strict environmental, social and economic standards.*

*These standards are based on the 10 Principles and 70 Criteria (P&C) for responsible forest management, set forth and updated by the FSC with the participation of all stakeholders.

Completing the transition to 100% recyclable materials for Pedon brands

The pathway for transitioning to the use of fully recyclable plastic materials for all branded product lines by 2025 involves a series of stages. The first targeted the legacy lines "Dalla Buona Terra" (from triple-layer PE+PP+PET to single-layer PP+PP) and "Italia Tipica" (triple-layer CA+PET+PE with external paper to CA+PE packaging that can be recycled as paper). The second stage targeted the easy-to-cook products in the "I Salvaminuti" line (from triple-layer PE+PP+PET to single-layer PP+PP). The third stage now underway involves the roll-out of 100% recyclable doypacks, an innovative solution applied to "I Pronti" products.



Promote the project "Save the Waste," the paper made from bean waste

Presented at Milan Expo 2015 and developed in partnership with the company Favini, "Save the Waste" is an innovative project using a **circular economy model for the creation of environmentally sustainable paper**. The **sidestream generated through the cleaning and screening of legumes** is used to **replace 15% of the virgin tree pulp** used to make paper, delivering a consequent 20% reduction in greenhouse gas emissions. In addition, the steam needed for production operations and part of the electricity used by the paper mill are supplied by a methane-powered cogeneration plant with a capacity of 2,000 kWh, with the remaining electricity consumed is 100% green-energy-certified, self-produced by hydroelectric turbines.

The resulting paper is **fully recyclable and features a natural tactile and aesthetic appearance**. It is used by Pedon for marketing materials, such as business cards and company brochures, and for the packaging of all branded products sold in cartons under the "C'è di Buono in Italia" and "Lenticchia Pedina" lines. As the paper is safe for contact with food, the cartons do not require an internal bag for the storage of the product. **Eco-friendly inks** are used on the external surface of the cartons and, where necessary, a compostable PLA window obtained from corn waste is used.

