

# Ornellaia and Masseto & Sustainability

The road  
to sustainability:  
third year

# Approaching the future with attention, respect and creativity

The road towards  
sustainability:  
third year



# A message from the ownership



Sustainability is at the heart of our development strategy. It is an important topic because we want to achieve responsible growth and because we believe in a shared culture of sustainability. Respecting natural resources, such as water, land and biodiversity, while ensuring the wellbeing of people, despite the impact of climate change, are the goals we must set for ourselves when we talk about sustainable agriculture, whereby the word refers not only to the environment, but also to the social and economic sphere. Ensuring, therefore, respect for people and quality of life for all involved in production, human rights for people who work in the wine world and social equity.

To achieve these goals, we cannot simply reduce our impact; instead we must anticipate events. In this third report, we analyse a year's work that continues progress towards all-round sustainability that is shared and experienced. Our approach has been focused on improving the initial results achieved in previous years through reducing consumption via a monitoring system with new technologies and strategies capable of significantly limiting our impact. We have also implemented important innovations, such as the Biodiversity Friend - WBA certification, which involves studying biodiversity in the vineyard system through the application of biodiversity indices. Soil, air and water assessments enabled a full and responsible vision of sustainability in terms of the concreteness and measurability required to obtain the results set.

We have always experienced the importance of the local area as an element necessitating support that must be accentuated through constant commitment. Wine, more than any other product, embodies the bond between the

land and human expertise. With this awareness, we have adopted a sustainable production system that is mindful of protecting the environment, preserving local heritage in its entirety: its culture, history and evolutions. Reaching the goals also depends on supporting the local area and community. We are convinced that this sustainability report is the tool that makes this journey concrete and measurable. In representing the ownership of Ornellaia and Masseto, I would like to thank everyone who makes this possible through their daily commitment.

*Lamberto Frescobaldi,  
Ornellaia and Masseto*



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# Principles of sustainable development

# 1

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“Differences are riches. The products of the Earth, which must be defended and encouraged, are the best expression of human work and ingenuity. We have always been pioneers, valuing research and people, and respecting the areas where we work.”

## Circle of Respect

### Values: Research, Sharing, Respect

Ornellaia and Masseto operate in a responsible, sustainable, inclusive and transparent way towards people, communities, local areas and the environment, assets, cultural and social activities, institutions and associations. The companies generate widespread social and environmental benefits, which contribute to growth in economic value for stakeholders through a pursuit of wellbeing, the circular economy, and environmental protection.

The guiding principles are:

- the interdependence of environmental, economic and social sustainability;
- the need for ecological transition towards a regenerative model, which involves a transition to renewable energy, agroecology and the circular economy;
- innovation and continuous improvement as a process of change.

In line with the latter principle, every year we define the purposes of shared benefit. This choice reflects a drive to ensure that our work is always in line with the changing context.

The areas of intervention where the actions are focused are the following:

- creation of economic value;
- pursuit for wellbeing, understood as health and happiness;
- circular economy policies for the protection of the environment in which we operate.

These three areas of action, in their declensions, integrate even better with the company's progress towards a gradual reduction in consumptions and gas emissions, showing how the sustainable pathway is a natural evolution of the approach adopted so far by our estates in the *modus operandi*.

Also for 2023, Ornellaia and Masseto are committed, through practices and activities, to achieving their shared benefit goals and how, over the next few years, they will act in line with the new aims described in this third report.



### 1. Environmental and production sustainability

Our estates protect the environment and biodiversity through the use of sustainable practices, the adoption of precision viticulture and the conscious use of resources by adapting to climate change, making the most of innovation and digitalization for the informed protection of environmental resources and the local area.



### 2. Integrity: ethics and responsibility

High ethical and moral standards with the aim of always acting "in the right", respecting these ethical standards in order to contribute to constant and continuous growth in terms of quality of life by integrating them into decisions of an economic and environmental nature.



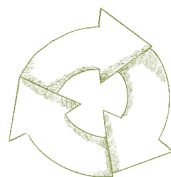
### 3. Human factor: valuing people

Respect, inclusive environment, collaboration and success, contribution to the local community. Recognizing the central role of people lays the foundations for a healthy and solid company. The development of human resources is based on respect for workers' rights and achieving their full potential, but also on protecting their pursuit of happiness as a primary component of every individual's identity.



### 4. Customer care

The estates strive to grow in value by understanding customer needs every year and exceeding their expectations.



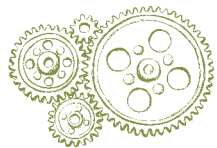
### 5. Circular economy development

Compliance with the afore-mentioned principles by adopting methods that lead to the increase of a circular economy shared with partners.



### 6. Focus on quality

Constant commitment to research to achieve ever higher quality standards.



7.

**Excellence and innovation**

The search for new analysis models enables us to remain interested in new technologies for each production process. The shared goal is to expand the possibility of using more effective techniques both for compliance with quality standards and for environmental protection in terms of reducing waste and protecting primary resources.



8.

**The value of training**

The estates promote staff growth as a stimulus to an ever greater awareness of operating according to the principles of sustainability. Incentivising training also for the supplier chain, such as managing careful and conscious work, in gaining certification for the other production sectors with which we interface.



9.

**Creating social and economic value for the local area**

The estates work to achieve growth for the local area in terms of job creation and wealth by involving local suppliers and supporting community initiatives.

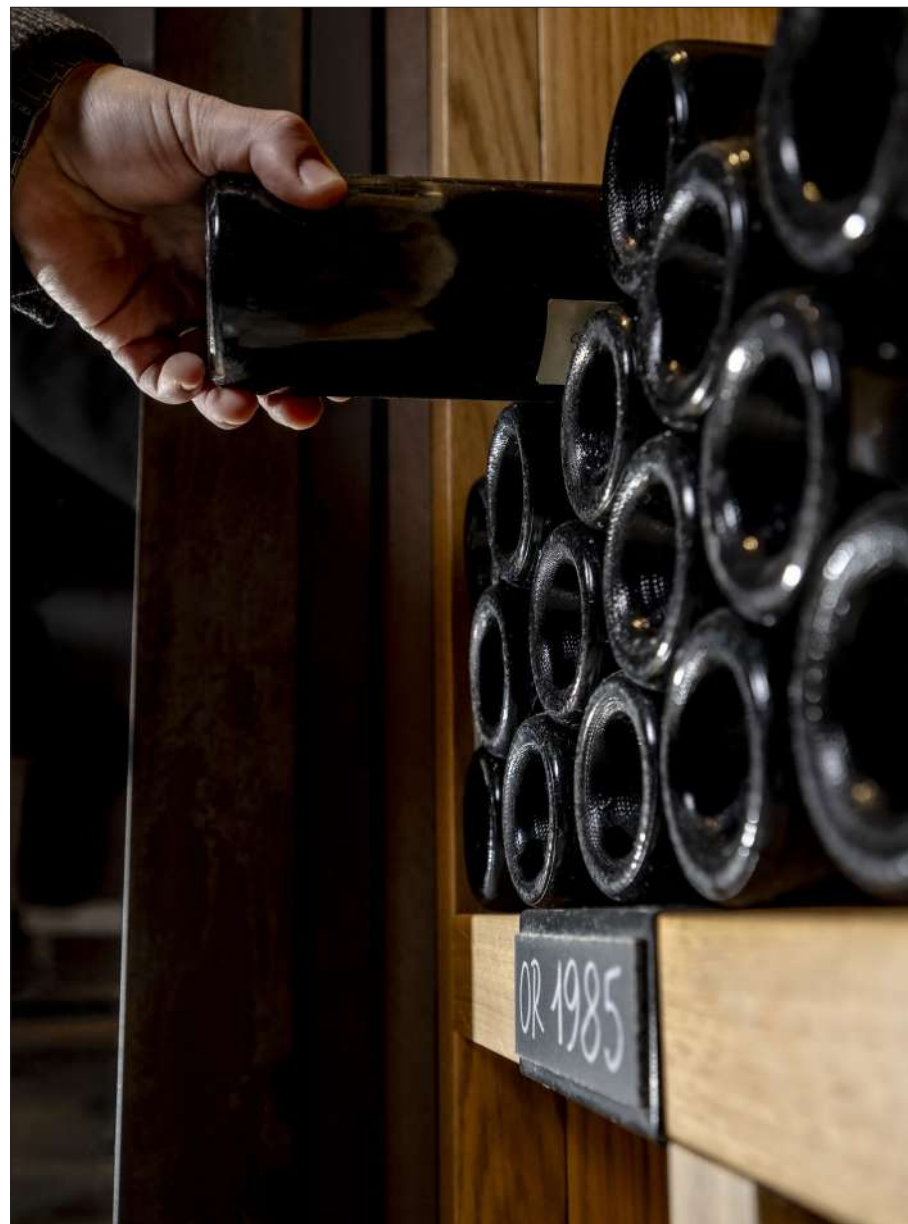
# Sustainable goals reached in 2023

# 2

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## 2.1. Sustainable goals reached in 2023

To be in harmony with the local area through the rational use of natural resources and care for the environment, from the vineyard to the wine. For this reason, we have developed an integrated process that takes into account three essential factors: every action must be **socially fair, safe for the environment** and, at the same time, **economically viable**.

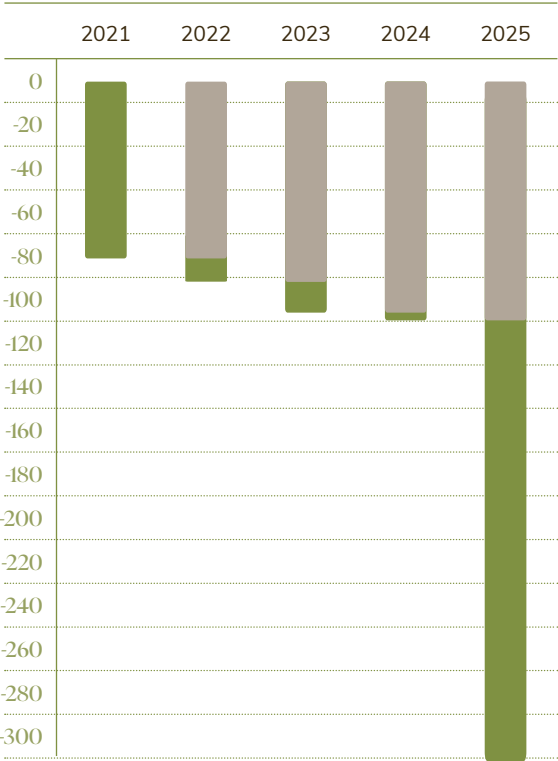


Making the Masseto and Poggio alle Gazze dell’Ornellaia bottles lighter totalling 13.3 tons



Glass bottles play a major role in calculating the carbon footprint of wine. Taking transportation into account, bottles are an important source of greenhouse gas emissions. Reducing the weight of bottles, even slightly, can have a significant impact, which is why we strive to reduce this gradually every year.

Tons      Bottle weight reduction compared to 2022



Reducing the use of electricity in the production department

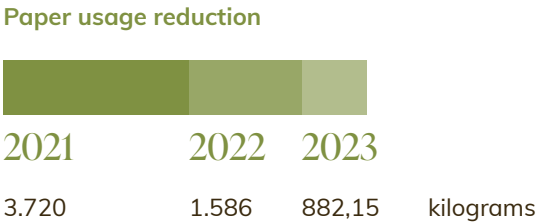


Thanks to an electricity consumption monitoring system that led to a reduction of -108,907 kilowatt hours (**-11% compared to 2022**). The consumption monitoring system has made it possible to highlight the weak points and reduce all forms of waste through the development of alternative

systems that lead to concrete results. Energy efficiency actions are therefore implemented.

## Process of reduction of paper materials usage

The process of reduction of paper materials thanks to the development digital tools, which led to a reduction in paper use of 882.15 kilograms.



## Donations to local associations

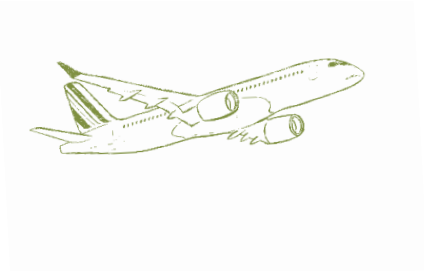
- Surgical masks to the Misericordia of Castagneto Carducci and the Donoratico Croce Rossa
- Uniforms to the Unione Sportiva Dilettantistica San Vincenzo
- Donations in favour of San Patrignano (Florence), Operations Smile (Rome), Rotary Club Rosi-gnano, Dynamo Camp (Florence), Amici di URI (Milan), Avapo Venezia (Venice), Liquid Icons (London).

Supporting the local area means being an integral and active part of the community. It means contributing to keeping villages alive that constitute wealth and helping local associations that work towards the common good in a concrete way.

## Programmes that aim to reduce the carbon footprint

- The partnership with Air France/KLM has enabled the estates to contribute to the reduction of CO2 in air transport. During the team’s travels, 16.5 metric tons of Well to Wake CO2 were saved (i.e. along the entire fuel supply chain, up to combustion for aerial use).

- The partnership with DHL, thanks to the use of GoGreen products and services, has allowed the estates to offset a total of 20.6 kilograms of CO2 equivalent.



# Sustainable policies

# 3

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The sustainability report is a tool that serves to show and reaffirm our commitment to a better future through objective and quantified performance indicators.

## 3.1. Environmental pillar

### 3.1.1 Vineyards

#### Biodiversity Friend - WBA certification

We achieved **Biodiversity Friend - WBA** certification after two years of on-site analysis. This certification was obtained by applying the biodiversity indices of the protocol, which verifies the biological quality of the soil, water and air in 12 vineyard plots.

Biodiversity, or biological diversity, is defined as any type of variability between living organisms, including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; it includes diversity within species, between species and between ecosystems. Biological diversity is of fundamental importance for the continuity of life; it allows ecosystems, species and populations to adapt, overcoming the changes imposed by events. It is an irreplaceable resource for humankind.

#### Analysing the "Biological Indices"

The environmental quality of the agrosystem is assessed by detecting the presence of particular organisms, defined as biological indicators, as these have a high sensitivity to pollutants, are widespread locally, have low mobility and an ability to accumulate pollutants within their tissues.



**IBS (Soil Biodiversity Index)** assesses soil quality by calculating a score in relation to the role played in the dynamics of the edaphic ecosystem and the presence of soil invertebrates (annelids, springtails, mites, isopods, etc.). In order to pursue a more sustainable methodology, future agriculture will have to adopt a more rational soil management. The use of endogenous micro-arthropods makes it possible to measure and increase their presence since endogenous animals establish a dense network of relationships and interact continuously with the physical environment. Any alteration of this environment is “recorded” by the soil community, which can therefore be used as an indicator of changes in the natural conditions. From the analyses carried out on 12 vineyard plots, the soil potential is considered to be very good. Particular agronomic practices have been found that reveal a careful, professional and prudent management on our part in terms of biodiversity conservation.

#### Strategically important management:

- management with maintenance of the herbaceous and shrubby cover of ditches and riparian strips;
- maintenance of the spontaneous flowering shrubs;
- management of wooded areas;
- care of wetlands of both natural and man-made origin.

These elements strategically allow the conservation of fauna, especially entomofauna and higher fauna, such as amphibians, reptiles, birds and mammals.

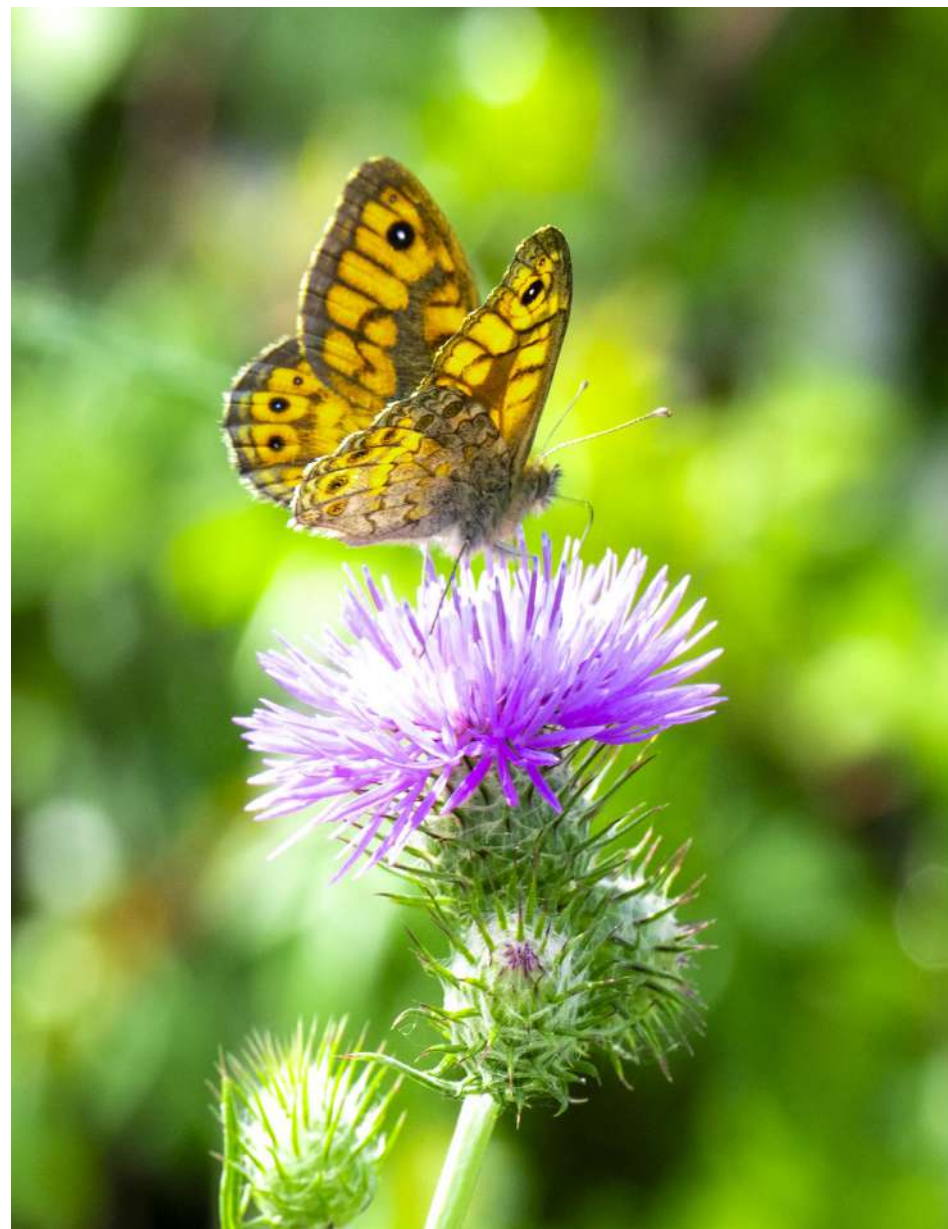
**FINAL AVERAGE VALUE of IBS-bf is equal to 169**  
(average value, SD\* +/- 16), considered good (overall)

\*SD - Standard Deviation



**IBL (Lichen Biodiversity Index)** assesses air quality through the study of lichens on plants. Lichens are symbiotic organisms between a fungus and algae, and are very sensitive to air pollution caused by phytotoxic gases. For this reason, they are regarded as excellent biological indicators and are therefore used in air biomonitoring. In agricultural areas, their sensitivity to pesticides makes them perfect evaluation “sensors”. The calculation of the index in this case is based on a datum of presence or frequency of epiphytic lichens detected on the bark of trees in the countryside.

**FINAL AVERAGE VALUE of IBL-bf is equal to 69 (mean value, SD +/- 14), considered more than sufficient (overall).**



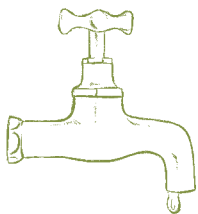
**IBA (Aquatic Biodiversity Index)** assesses the quality of surface waters by analysing the composition of aquatic invertebrate communities. The analysis is based on the presence of aquatic macro-invertebrates with different tolerances to pollution (plecoptera, tricoptera, ephemeroptera, crustaceans, molluscs...) in surface waters. The index assesses how much an aquatic environment as a whole is conducive to hosting significant biodiversity.

**FINAL AVERAGE VALUE of IBA-bf is equal to 54 (average value, SD +/- 16), considered good (overall)**

The biological approach proposed by the protocol is a simple method that has made it possible to estimate the quality of air, soil and surface water. A direct analysis of the local area clearly shows the complexity of the company. Vineyard areas are often interspersed with areas with ecological connectivity value, such as hedgerows, woods, springs and a permanent freshwater basin, areas with riparian vegetation (herbaceous, shrubby and arboreal in places), as well as the presence of refuge areas and ecological corridors in the broadest sense.



### 3.1.2 Managing usage



#### Water usage during cellar operations and bottling

*Between savings and reuse, water in the cellar becomes a precious commodity*

The analysis focused on the use of water during cellar operations, such as harvesting, winemaking, oenology and during bottling. In the bottling phase we reviewed our washing procedures and worked on optimising times, achieving a reduction in water use thanks also to continuous monitoring of progress. Meanwhile the production process is a more complex job that will require more time, given the considerable use of water to wash tanks and barriques. The goal, since the first analysis in 2023, has been the search for internal processing procedures in order not

to compromise the quality of the process and, while maintaining its effectiveness, to reduce the volume of water required while avoiding waste and excessive usage.

#### Annual data analysis:

2023: **5.4 litres of water per litre of wine**, net of osmosis waste (-12% compared to 2022)

The total goal by 2025 is to reduce consumption by -20% compared to 2022 to bring the value back to within 5 litres of water per litre of wine.



#### Electricity use *the invisible role of energy*

At the end of 2022, in the finished product storage warehouse, which must be kept at a constant temperature throughout the year, the heating/cooling system, previously consisting of an electric heat generator and a heat pump, was replaced with a single heat pump for both hot/cold phases with lower consumption and better efficiency.

#### Annual data analysis:

2023: **0.48 KWh per std bottle.**

3.1.3  
Computerized Monitoring  
System for all data relating  
to energy and water usage

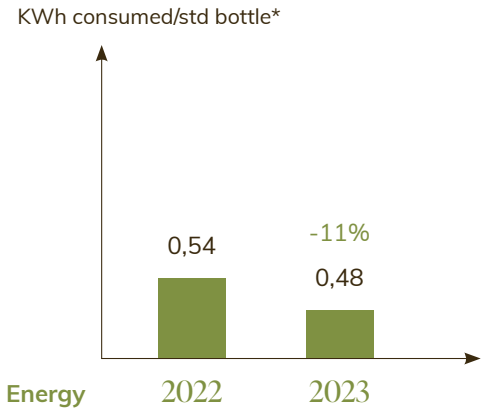


The study was completed at the end of 2022 and a computerized water and energy use monitoring system could be installed for the production process in the Ornellaia and Masseto wineries. The same system has been implemented to control water and energy use in the company offices. This monitoring has been operational since January 2023.

Summary KPIs 2023 vs. 2022

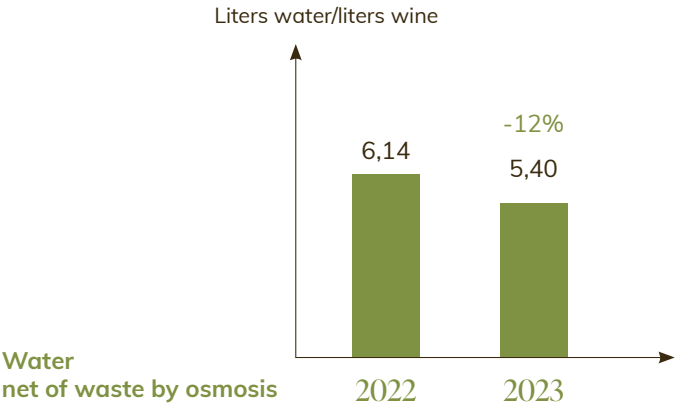
The result achieved in reducing electricity and water use is a very important figure for us.

- For the reduction of electricity use, the monitoring of monthly consumption has made it possible to intervene on inefficiencies.



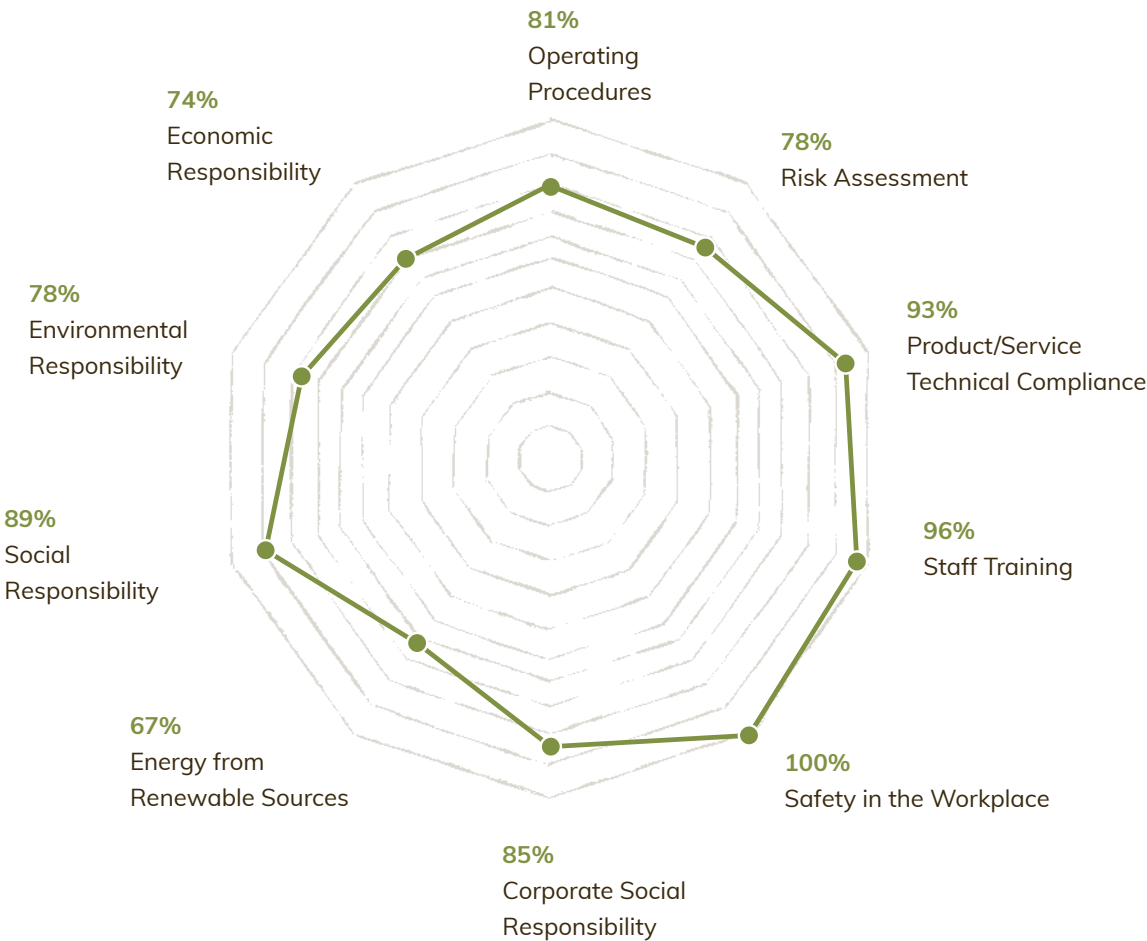
\*In-line bottling operations, manual bottling and in-line bottling and packaging

- Due to the reduction in water use, improved water management in the bottling line and a critical review of the washing procedures in the cellar has made it possible to achieve the goals that were set, as well as hopes for continuous improvements for the coming years that will lead to further reductions.



### 3.1.4 Supplier certification

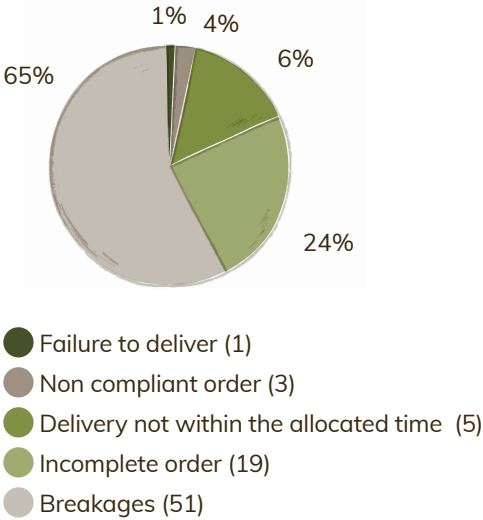
All values were reconfirmed in 2023 as well through a questionnaire for all major suppliers in a shared path of sustainable management and incorporating an analysis of their social responsibility



3.1.5 Managing information and corrective actions

The complaints received during the year were all processed and resolved.  
Out of 9,513 total shipments, only 0.83% recorded a disservice. Since this was post-distribution, the report was managed by the customer service area.

|                  |       |
|------------------|-------|
| nr. disservices  | 79    |
| nr. shipments    | 9.513 |
| % of disservices | 0,83% |



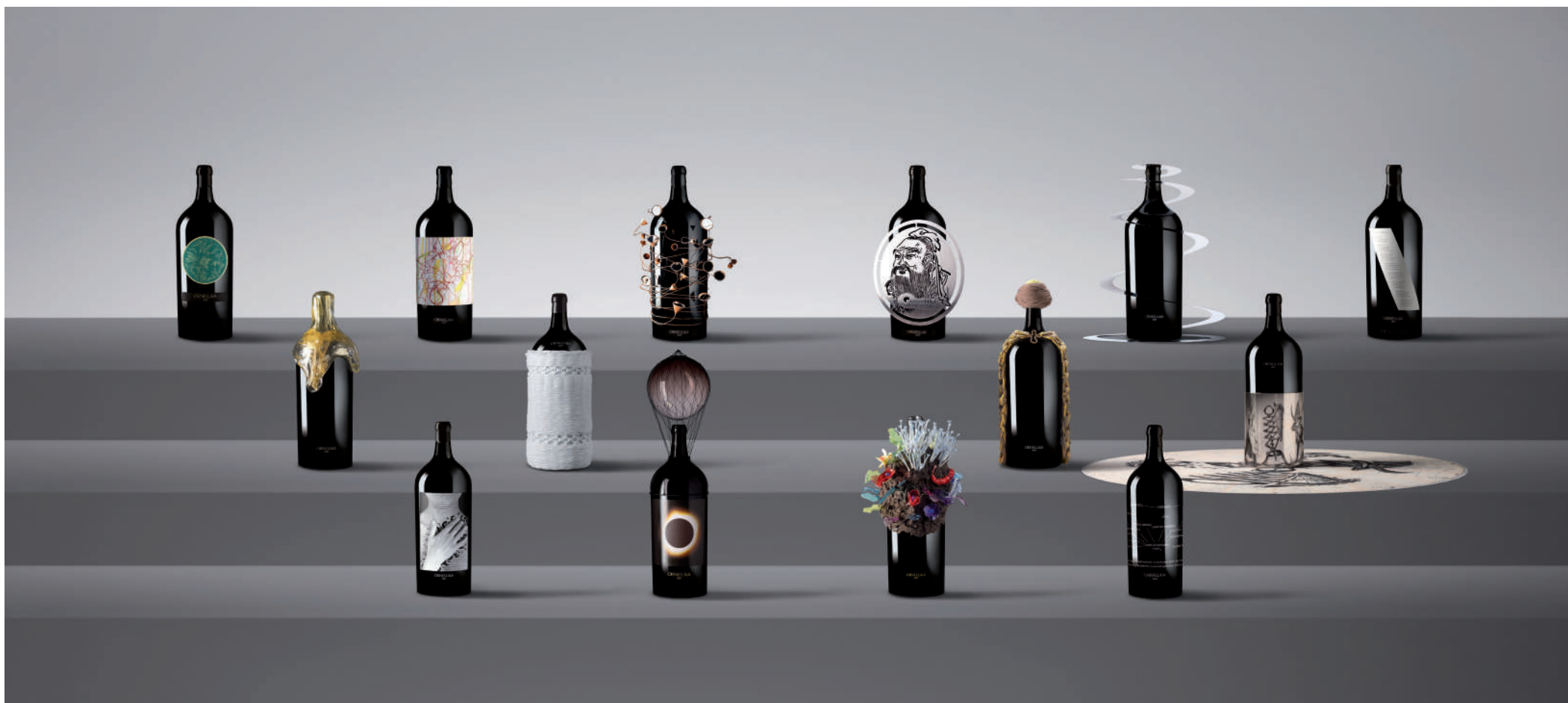
3.1.6 Packaging

We are continuing our commitment to replace paper materials with digital tools. For some of these, we have managed to achieve a transition to 100% digital, while for others we are already over 70% and intend to continue this approach.  
Even in the production sector, thanks to analysing usage, in 2021 we had already noticed the high use of plastic for closing pallets ready for storage. The transition to stretch plastic film consisting of 60% recycled plastic was reinforced in 2022.

In 2023, we continued with this replacement and will continue to significantly reduce plastic consumption for years to come. In addition, suppliers with FSC-certified cartons were preferred as a selection criterion for packaging, reaching 100%. For summer shipments, a thermal packaging based on recycled paper has been selected.

## 3.2. Social pillar

Vendemmia d'Artista ended the year again with a sizeable donation to the Solomon R. Guggenheim Foundation. Ornellaia, with the support of the charity auction organized by Sotheby's, has donated **\$325,000** to the "Mind's Eye" program, which allows access to art to the blind or low-vision persons through multisensory experiences.



## Company training

- Meetings on sustainability topic with all employees
- Time Organisation
- Communication and Customer Satisfaction
- Public speaking
- Business English
- Internal and external negotiation

Sustainability meetings that involve the entire company, so that the perception and sensitivity of employees is increased at all levels.

The progress that the estates are pursuing is one of greater integration between knowledge systems (research centres, internal training, universities, consulting services) and activities in the field and in the cellar throughout the production process. Management with a high knowledge content leads to higher quality products with high respect for the environment in which it operates, respecting the resources that nature makes available. A workplace evolution that places the human factor at the centre of the company by investing in personnel, a precious resource that can make progress in innovation through training.

# New five-year investment plan by 2025:

2,2mln €  
Investment plan approved by 2025



+22%  
Compared to the initial plan approved in 2021

|              |      |         |
|--------------|------|---------|
| Actual plan  | +22% | 2,2 mln |
| Initial plan |      | 1,8 mln |

653.000 €  
Spent in 2023

We continue with the corporate welfare plan with bonuses and benefits offered to employees.

# Re-evaluating goals by 2025

# 4

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# By 2025

|    |                                                                                                      |                                               |
|----|------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| 1. | <div>Reducing bottle weight</div> <div>Reaching -300 tons</div>                                      | <div><div></div>32.5% achieved</div>          |
| 2. | <div>Reducing water usage in the cellar</div> <div>Reach -20%</div>                                  | <div><div>12% achieved</div></div>            |
| 3. | <div>Replacing LED bulbs</div> <div>Reaching 100%</div>                                              | <div><div>100% achieved</div></div>           |
| 4. | <div>Electric or hybrid transport</div> <div>Purchasing cars and minibuses for internal travel</div> | <div><div>20% in progress</div></div>         |
| 5. | <div>Expand photovoltaic surfaces</div> <div>Reach triple the current amount</div>                   | <div><div>still to be implemented</div></div> |

# The Ornellaia & Masseto sustainability committee

# 5

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**Sustainability committee**

A structure based on mutual respect and sharing values implemented to achieve set objectives.

The committee must verify that the sustainable activities approved in the budget are respected and implemented across the company.

A shared vision enables the quality of the actioning process to be achieved by making each company member responsible.



