
AMORIM

Corticeira Amorim Sustainability

AMORIM

Our world is cork

Cork is the Outer Bark of the Quercus Suber L.

(cork oak tree)

Cork oak trees are native to the Western Mediterranean Basin, where growing conditions are ideal

A cork oak tree can live on average **200 years**, during which time it may be harvested **15 to 18 times**

The process of natural cork extraction is called harvesting, a highly specialized process that does not harm the tree

The cork tree is the only oak species whose bark regenerates itself after each harvest

After each harvest, the cork oak undergoes an original process of self-regeneration of the bark, which gives the activity of cork harvesting a uniquely sustainable nature



Harvesting

It takes, on average, **25 years** before a cork oak can be harvested for the first time

The first harvesting occurs when the trunk's circumference reaches **70 cm**, measured at **1.3 meters** from the ground

After this first operation, the following harvestings are made at intervals of, at least, nine years, always between May and August, when the tree is at its most active phase of growth

Harvested in sections of **2/3 of the tree**, the bark grows back completely, taking on a smoother texture after each harvest

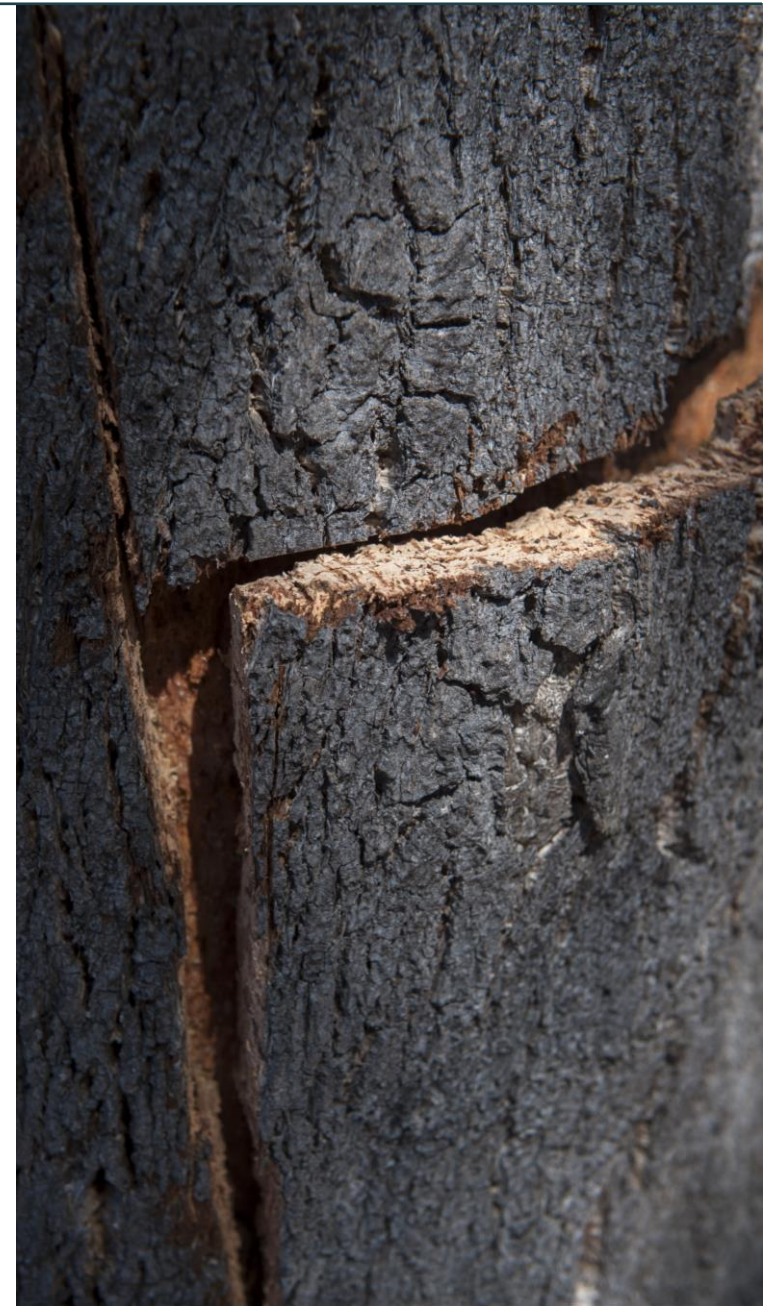
It is only after the **3rd harvest – 43 years** – that the cork has achieved the standards of quality required for a natural cork stopper



Cork's own Nature

Cork is an ecological and sustainable material **100% natural, renewable, recyclable and reusable**

- › Acoustic insulator
- › Thermal effective
- › Impermeable to liquids and gases
- › Elastic and compressible
- › Resilient
- › Very light
- › High temperature resistant
- › Fire retardant
- › Hypoallergenic
- › Shock absorbent
- › Soft touch
- › Warm feeling



Annual Cork Production and Cork Oak Forest Area

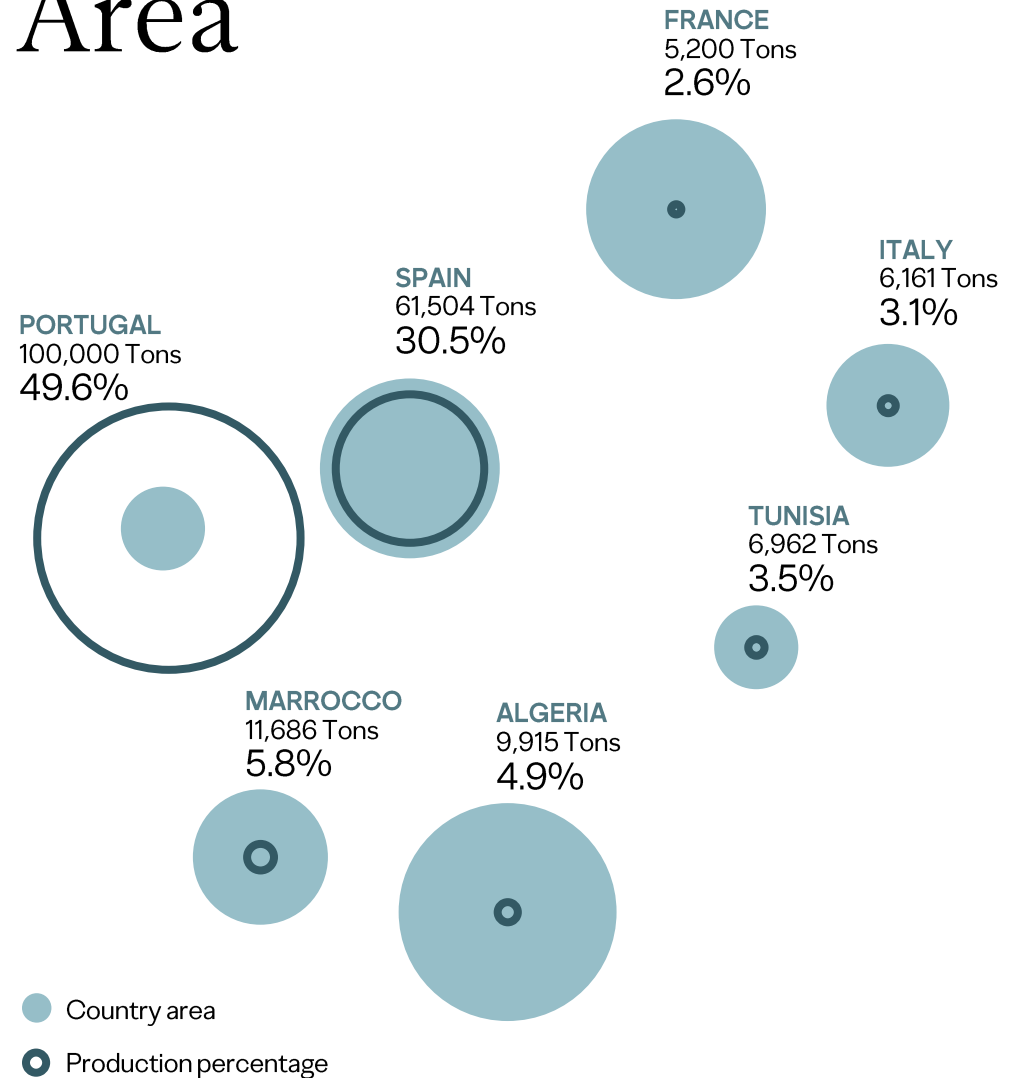
Cork oak forest area

Portugal	736,775 ha	34%
Spain	574,248 ha	27%
Morocco	383,120 ha	18%
Algeria	230,000 ha	11%
Tunisia	85,771 ha	4%
France	65,228 ha	3%
Italy	64,800 ha	3%

Source: Portugal: IFN6, 2013; Spain: MARM, 2007; Italy: FAO, 2005; France: IM Liège, 2005; Morocco: HCEF Maroc, 2011; Algeria: EFI, 2009; Tunisia: Ben Jamaa, 2011.

2.1 million hectares in the West Mediterranean Basin,

with ideal growing conditions for this species: soil composition, temperature, water and altitude.

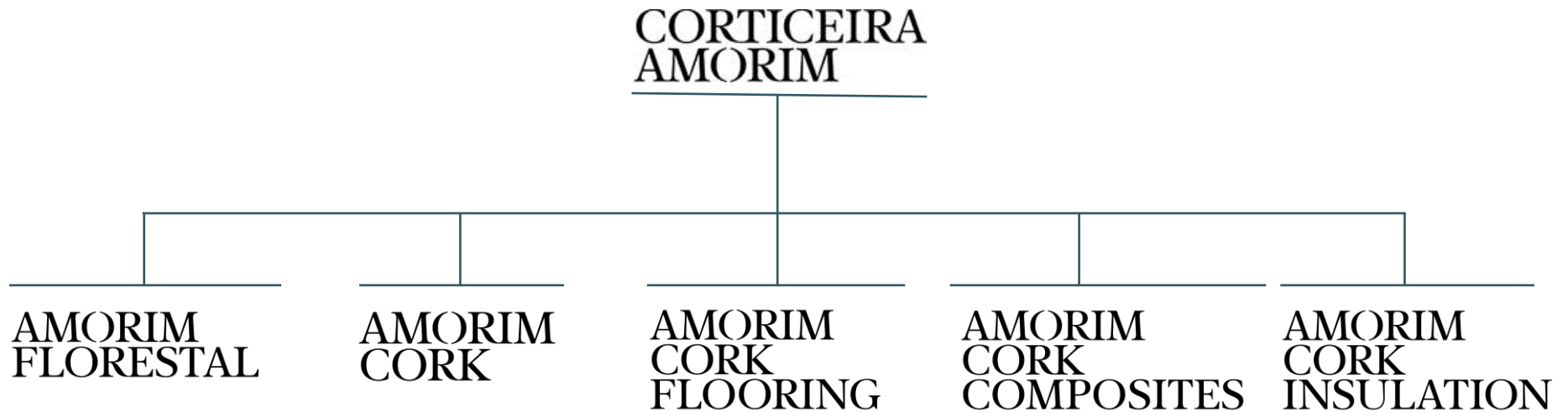


Source: FAO(2010)

AMORIM

The World Leader in Cork

Integral Verticalization



About Amorim

- › The oldest cork company in the world in continuous operation (**1870**) and listed in the main stock exchange index of Euronext Lisbon (PSI-20)
- › The largest world's cork processing company and the larger global exporter of cork
- › A vertically integrated company
- › Unique portfolio of cork stoppers covering all the wine, sparkling and spirits segments (**5,500,000** cork stoppers / year)
- › The most complete range of sustainable floorings and wall coverings (**10,000,000** m²/year of installed capacity)
- › An unrivalled range of breakthrough cork composites for countless business areas (**200,000** blocks & **40,000** cylinders /year)
- › World class benchmark insulation solutions for sustainable construction (**60,000** m³ insulation cork / year)



Worldwide Presence

10 Industrial Plants

Raw Materials

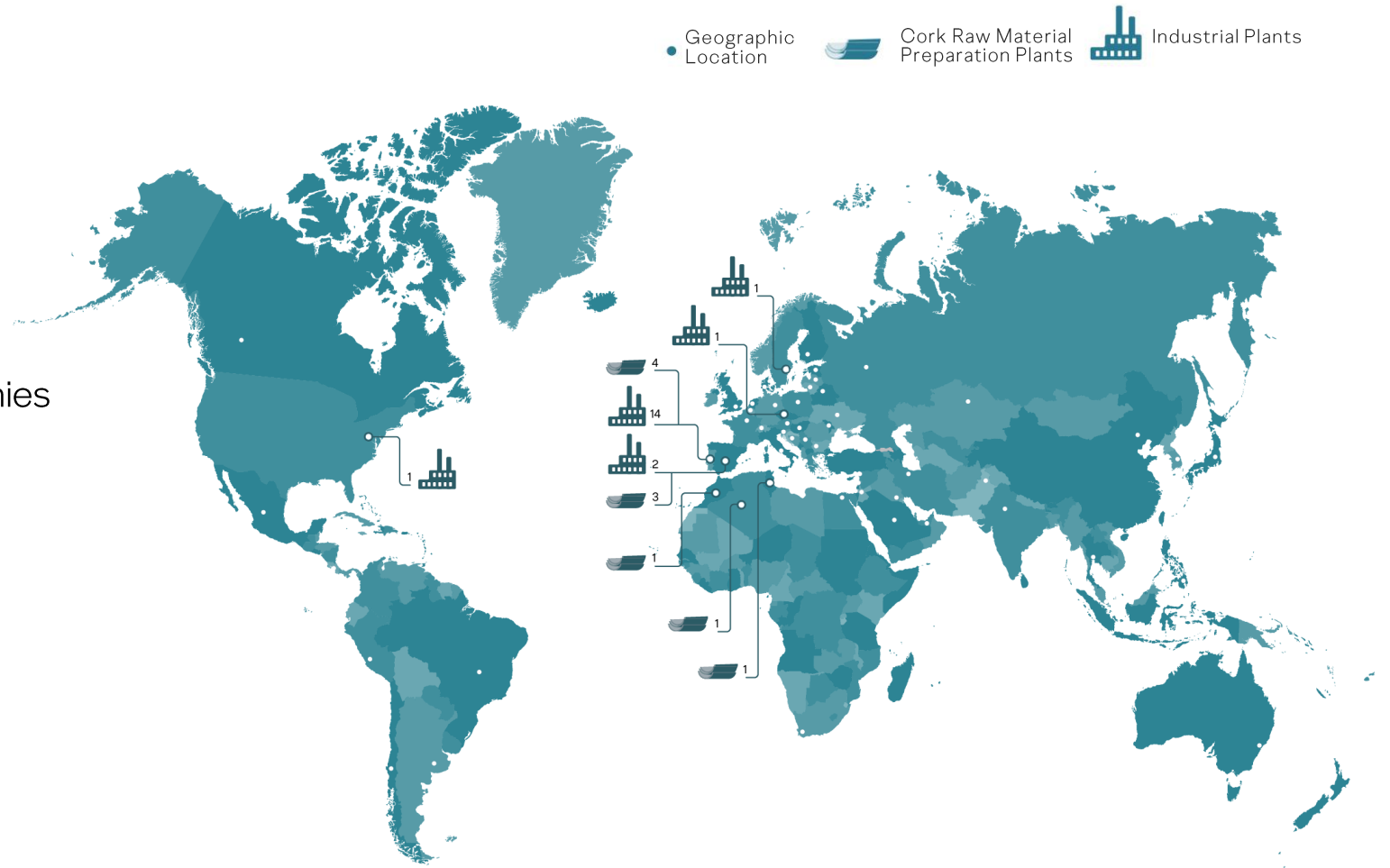
19 Industrial Plants

Cork Solutions

51 Distribution Companies

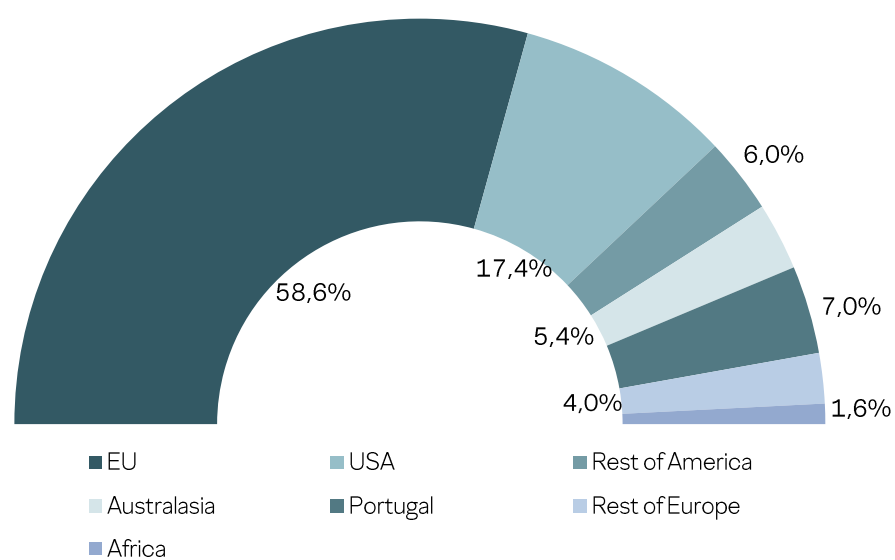
10 Joint Ventures

27,000 Clients

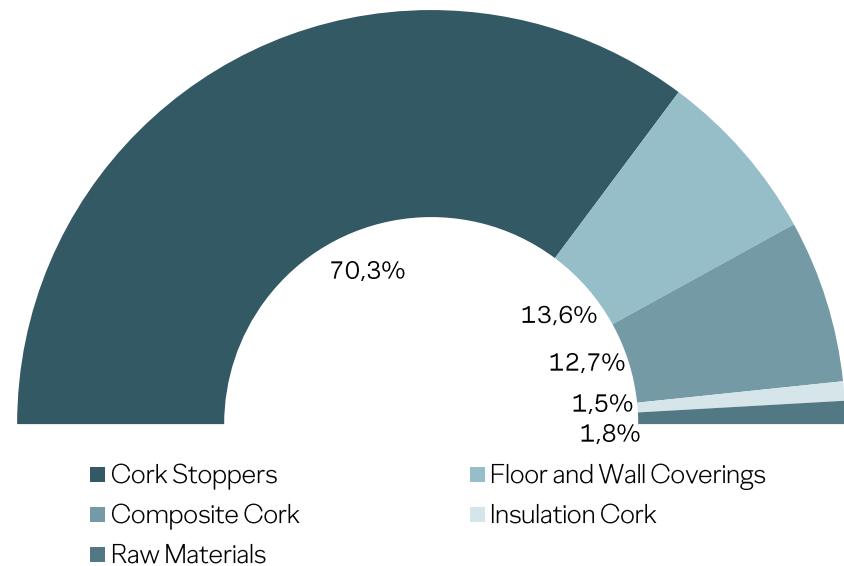


Sales, 2019

Sales by Geographical Area



Sales by Business Unit



AMORIM

Sustainability

Key Element of our Business

Part of our Mission and of one of our five Core Values

Pride

Ambition

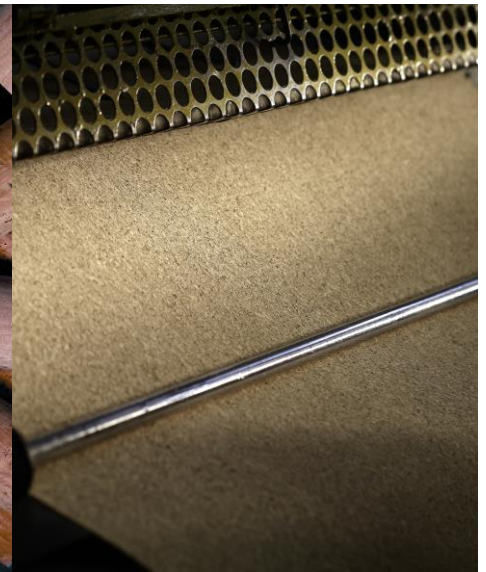
Initiative

Sobriety

Attitude

Our Mission: to add value to cork, in a competitive, differentiating and innovative manner, in perfect harmony with Nature

Pride: we take pride in the tradition of our business, in our Company history and in the knowledge that we have accumulated in the many years of work of different generations. We are proud to work with a raw material that comes from the earth, that is sustainable, has an identity, and combines tradition, modernity and innovation

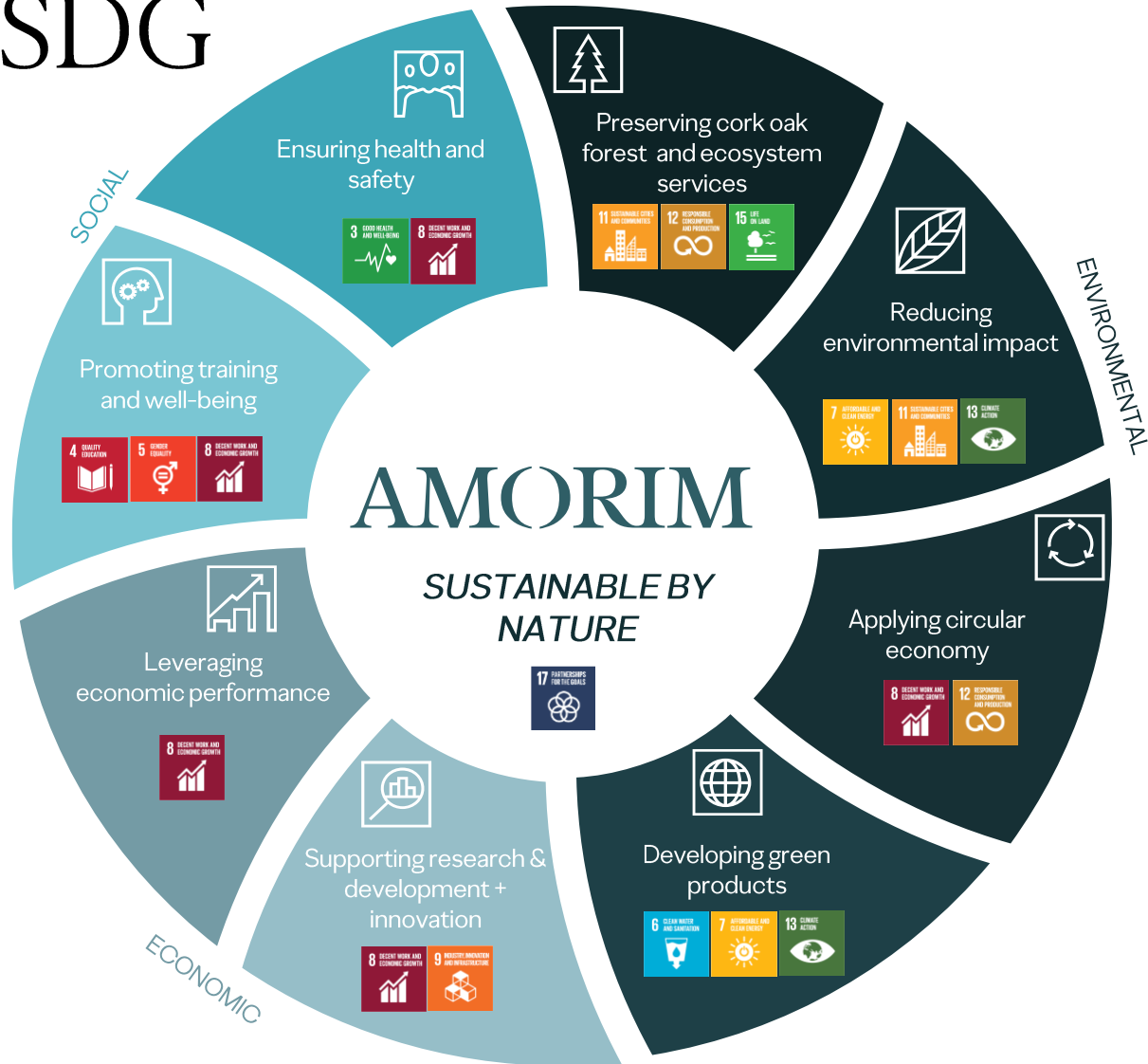


Alignment with United Nations' SDG

Sustainable Development Goals are an integral part of our Sustainability Strategy

We are committed to a solid and dynamic future with sustainability as the main reference

Corticeira Amorim aligns its strategy with **12 Sustainable Development Goals**



AMORIM

Preserving Cork Oak Forest and Ecosystem Services

Ecosystem Services of the Cork Oak Montado

The cork oak forest have a recognized protection status, contribute to climate regulation, are a driving force for sustainable development and play a crucial role in the world's ecological balance

-73tCO₂ / 1t of cork

maximum recorded carbon sequestration per ton of cork extracted

› **1/36 biodiversity hotspots**

› **100,000 people** depend on the cork oak forests

› **200 years** average lifespan of cork oak tree

› Acts as a **barrier against fires**

› Regulates the **hydrological balance**

› Protects against **soil erosion**

› Decreases the **risk of desertification**

Ecosystem Services of the Cork Oak Montado



We commissioned an independent study of the ecosystem services of the cork oak forest

Considering four case studies EY was able to identify three main groups of ecosystem services it provides

Provision

- › Cork
- › Wood
- › Animal products
- › Medicinal and aromatic plants and herbs
- › Mushrooms
- › Honey

Regulation

- › **Global climate regulation**
- › **Extreme events: fire prevention**
- › **Hydrological regulation and soil protection**
- › Habitat maintenance and biodiversity
- › Pollination

Cultural

- › Recreation activities and tourism
- › Scientific and educational activities
- › Cultural identity and landscape

Ecosystem Services of the Cork Oak Montado



Climate regulation

avoided costs
range from
424€/ha/year
to **768€**/ha/year



Fire prevention

avoided costs
range from
211€/ha/year to
751€/ha/year



Avoided soil loss

costs
range from
56€/ha/year to
500€/ha/year

596 €

546 €

220 €

...

> **1,300 € /ha/year**

average value estimated of the ecosystem services associated
with a cork oak forest properly managed

Ecosystem Services of the Cork Oak Montado



Climate regulation avoided costs are estimated by “putting a price on carbon”, taking into account that different ecological conditions of montado have different carbon sink capacities



Fire prevention benefits are estimated by comparing average costs with fire defense, fire damage and recovery for montado
Ecosystem vs typical rural land use in Portugal



Avoided erosion translates the service of regulating water flows and soil protection provided by montado (the amount of soil not lost to water erosion is estimated and valued)

Social cost of carbon in 2020 - average value of 54 €/tCO₂ (benchmark)

Sink capacity estimated – average of 11tCO₂/ha (case studies)

Avoided costs translate into € reduction in fire exposure provided by the montado in comparison to a typical PT land use (17 years timespan assessed)

Cost of soil lost due to replacing nutrient levels and need to perform dredging operations - 4,92€/t (case study in PT)

Avoid loss due to land uses of montado - average of 45t soil/ha (GIS analysis)

Forestry Intervention Program



Partnership with forestry producers,
research institutions and local authorities

Major Goal: to ensure the maintenance, preservation
and enhancement of cork oak forests and guarantee
continuous production of high-quality cork

- › reduction of the first cycle of the extraction of cork
(**from current 25 years to 10/12 years**)
- › genetic improvement and vegetative reproduction
of the cork oak tree
- › setting up a maximum number of trees per hectare
- › sequencing the genome of the cork oak tree
- › fighting pests and diseases
- › fertilization and compatibility of grazing activities



Sustainable Forest Management



We believe in the importance of the principles and criteria of FSC® (Forest Stewardship Council) for responsible forest management

At Corticeira Amorim

- › **29 establishments** have FSC® chain of custody certification
- › **> 90%** of cork and cork products are purchased from controlled sources



AMORIM

Reducing Environmental Impact &
Applying Circular Economy

Greenhouse Gas Emissions



We want to play our part in tackling climate change and work continuously on reducing our carbon footprint

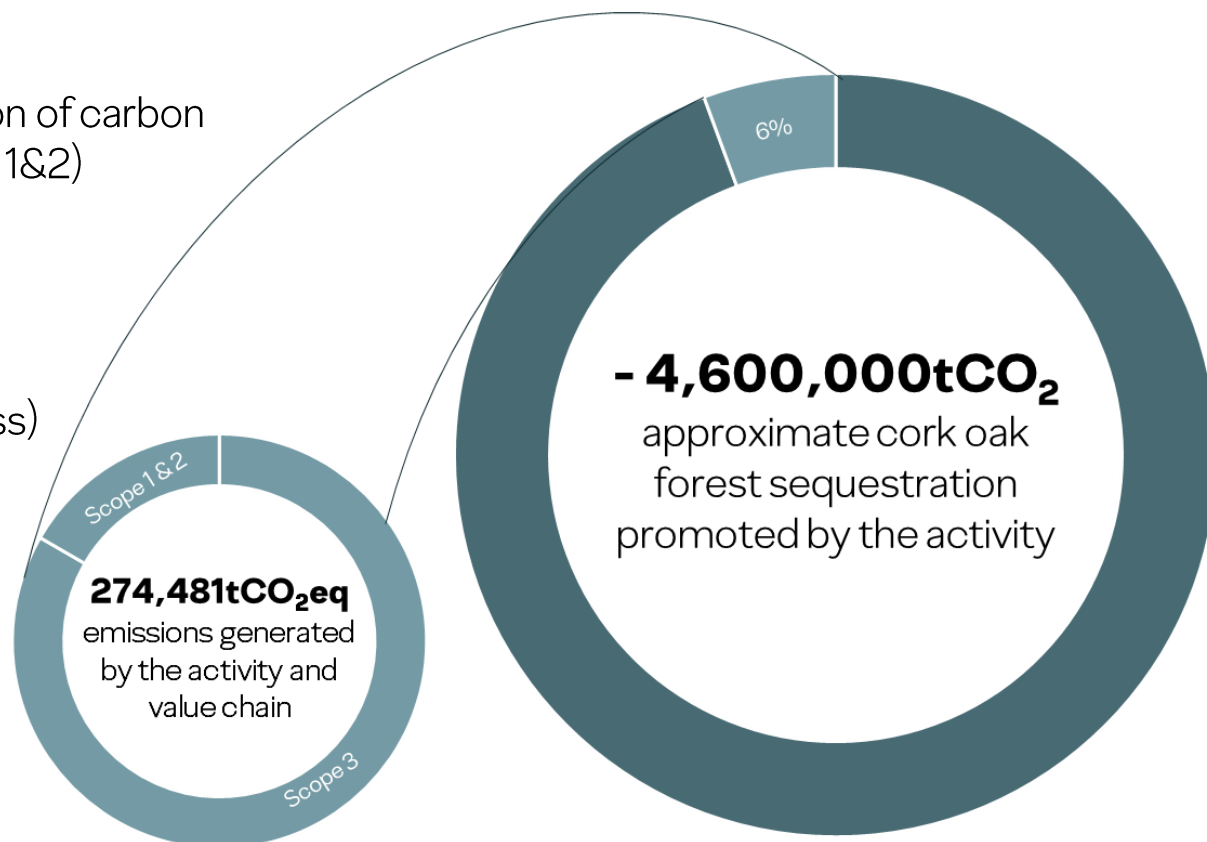
› **80%** emissions associated with the value chain (scope 3)

› **- 17%** reduction of carbon intensity (scope 1&2) In 2011-2018

› **20%** emissions generated by the activity (scope 1 & 2)

› **63%** energy from renewable sources (biomass)

› **62,000tCO₂eq** emissions avoided in 2019

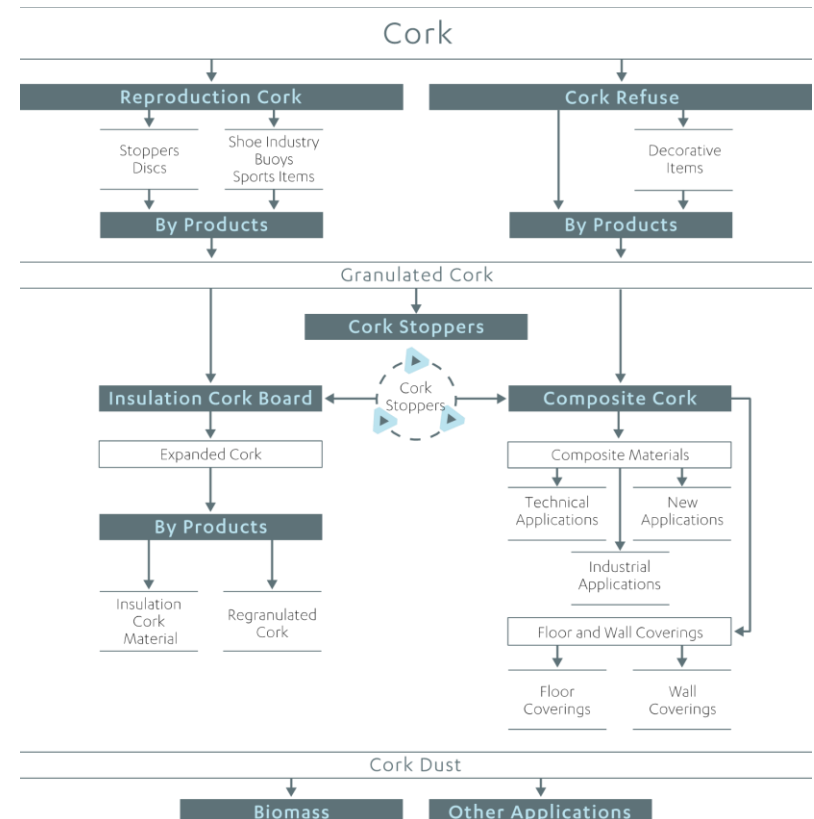


Greenhouse gas emissions inventory 2018, EY 2019

A Circular Economy

We are committed in applying the principles of circular economy and have implemented an integrated production process that allows and promotes the reuse of all sub-products associated with cork processing

- › **Valuing byproducts** from the production of cork stoppers
- › Promoting the **use of byproducts of other industries**
- › **Giving a new life** to cork stoppers at the end of life-cycle

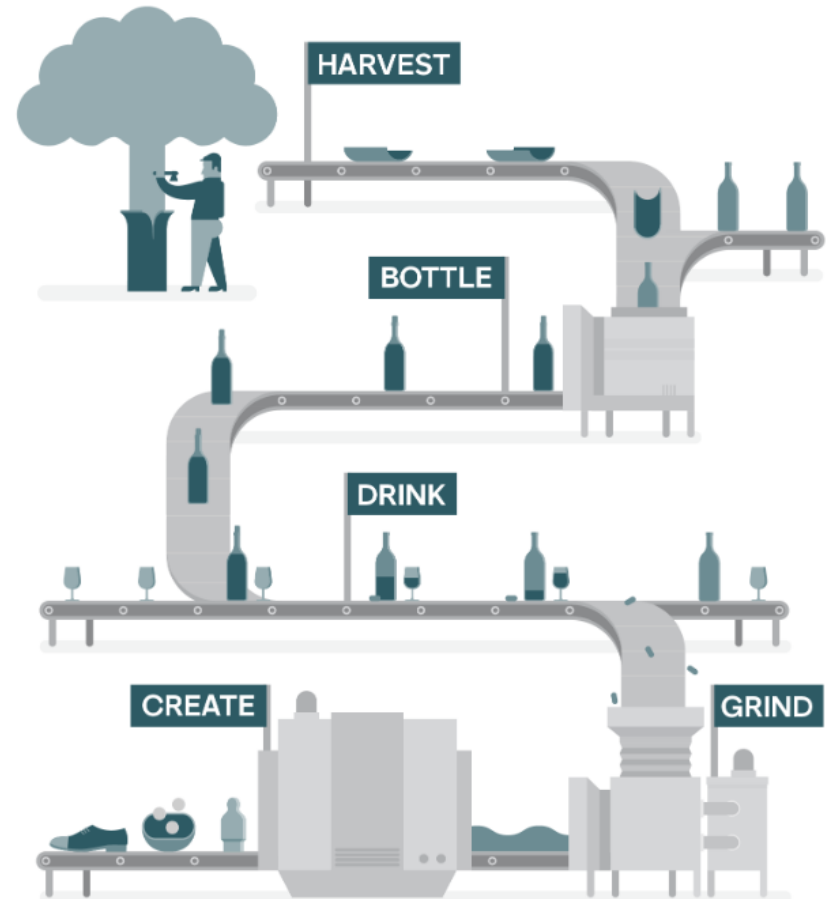


Our Path to Zero Waste

The concept of recycling cork stoppers originated in Portugal in 2008, when the Green Cork project was launched. It then spread to other countries, such as France, Italy, USA, Canada, South Africa, Australia and China.

In 2019

- › **100%** use of cork
- › **485 tons** of recycled cork
- › **5 continents** with recycling programs
- › **≈ 90%** waste recovery rate
- › **> 80%** consumed materials from renewable sources



Recycling Initiatives

Recycling, in addition to increasing reuse of the raw material, extends the cork life cycle and its environmental benefits, in particular its remarkable CO₂ retention capacity

- › we have distributed a total of 500,000 “cork boxes” in a partnership with Quercus and Missão Continente, with the aim to encourage recycling of cork stoppers and contributing to the reforestation of Portugal forests through the planting of native trees
- › **> 971,000** native trees planted in partnership since 2008
- › **2,868 students** involved in environment education actions



AMORIM

Developing Green Products

Negative Carbon Footprint



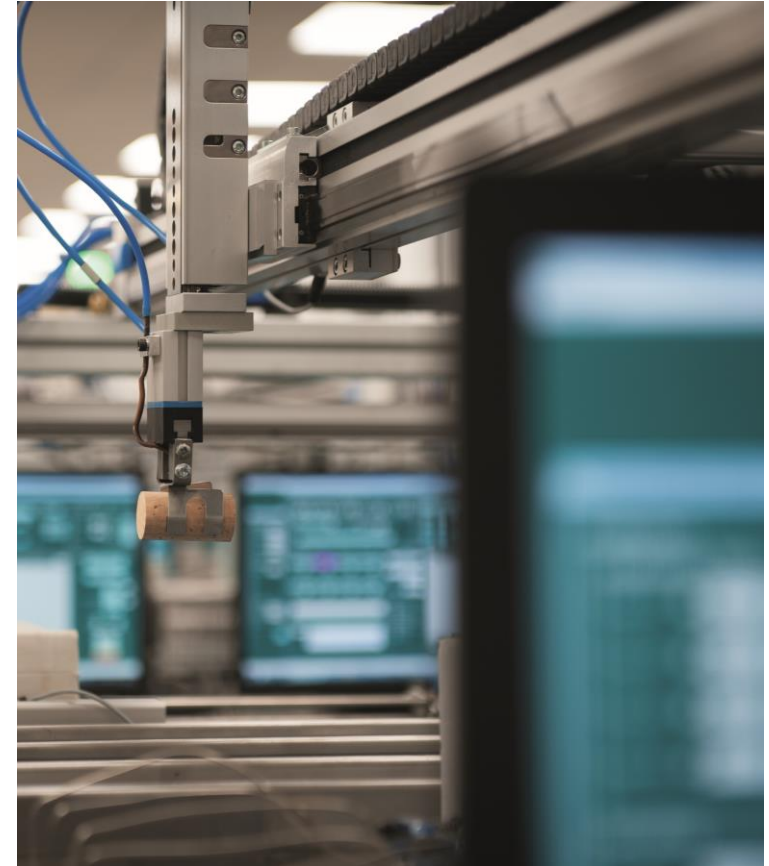
Winemakers from all over the world rely on Amorim's commitment to supply the finest corks

Over the last years, we continuously invested on innovating and improving the quality of cork stoppers. Also of critical importance is the work that has been developed to mitigate products environmental impact.

- › **-309gCO₂eq** natural cork stopper*
- › **-392gCO₂eq** Neutrocork stopper*
- › **-562gCO₂eq** sparkling wine stopper*

* Carbon balance considering sequestration in the cork oak forest

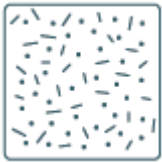
Environmental footprint for natural and sparkling cork stoppers, EY 2019 & carbon footprint Neutrocork, PwC 2018



Sustainable Credentials

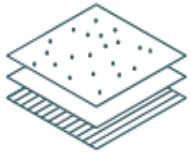


Cork is an excellent alternative to high impact non-renewable materials, leading to the transition to a low carbon economy



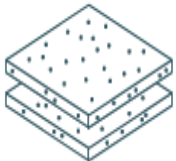
AMORIM
CORK
FLOORING

- › **Negative carbon balance** products
- › **TÜV /A+** indoor air quality certifications of all product ranges
- › **LEED/BREEAM** contributions to green building certification scheme



AMORIM
CORK
COMPOSITES

- › **1963** beginning circular economy practices
- › **> 500** applications with sustainability credentials
- › **> 850 m²** total area of an innovation plant fully dedicated to R&D that values the use of cork



AMORIM
CORK
INSULATION

- › **100%** recyclable and reusable products
- › **0%** additives, agglomeration with their own resins
- › **50 years** features tested confirm the great longevity

AMORIM

Supporting R&D+Innovation

Research & Development



All the Business Units with internal structures of Research & Development

We provide state-of-the-art solutions for the world's most demanding industries based on a 100% sustainable raw material

› **8,000,000 €** average yearly investment in R&D+I

› **14 patents** submitted in the last 3 years



Fostering Innovation and Entrepreneurship



With **Amorim Cork Ventures** we look for new ideas for the cork industry, mainly targeted to foreign markets

Since its establishment in 2014

- › **350** projects analyzed
- › **20** projects supported (11 are still active)
- › **25** different countries with applications
- › **5 acceleration** programs



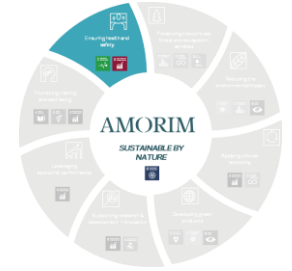
AMORIM

Promoting Training and Well-Being &
Ensuring Health and Safety

- › **> 4,400** employees in **27** countries
- › **72%** employees in Portugal
- › **100%** employees covered by collective bargaining agreements in Portugal
- › **43 years** average age of employees



Ensuring Health and Safety



We promote a culture of safety among our employees, thus ensuring that we are contributing to a healthy and sustainable lifestyle

Our goals

- › **reduce the frequency of work accidents**, targeting zero accidents in medium-term
- › **improve working conditions** and well-being of our employees
- › **reduce the number of days lost** due to accidents and occupational illnesses
- › **improve the risk assessment** and implementation of health and safety at work



AMORIM

Environmental, Social and
Economic Impact

Economic and Social Impact

We commissioned an assessment on the socioeconomic impact of our operations in the Portuguese economy



EY estimated the **direct, indirect and induced impacts** of Corticeira Amorim on several key economic figures



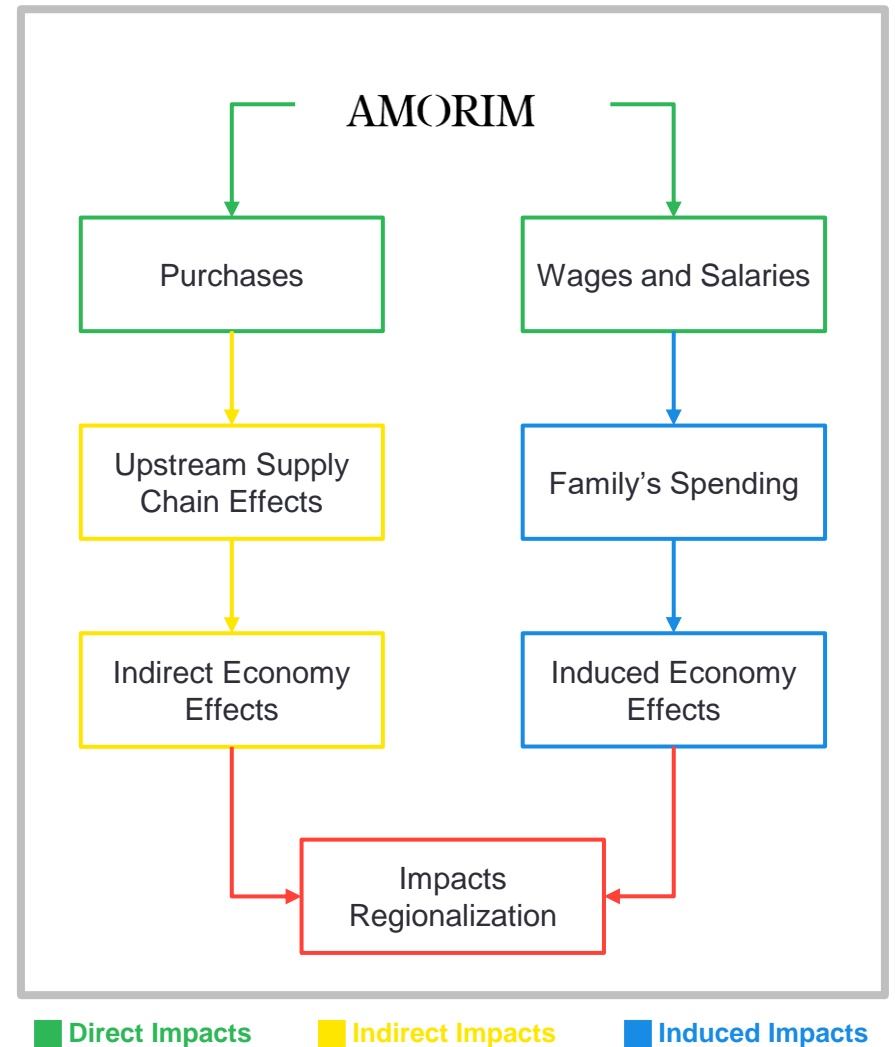
Highlighted the company's product diversification that allowed the maximization of resources' value



Presented several inspirational examples on how to achieve economic growth respecting the environment



Analyzed Corticeira Amorim's central role in montado's management and suppliers' qualification



Economic and Social Impact



We have a higher multiplier effect than the wood and cork industry due to the larger indirect effect

x2,17

one euro of production generates, in total, **2,17 euros** of national production

x1,97

wood and cork industry

x1,93

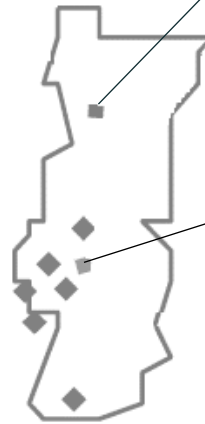
paper and paper products

93%
exports to more than 100 countries

75%
goods/services purchased in Portugal

39%

contribution to total exports from the municipality of Santa Maria da Feira



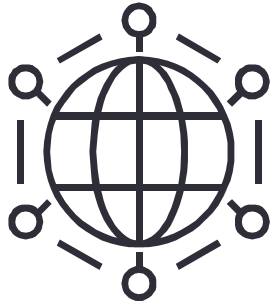
51%

impact in the **employment of forestry sector** in Ponte de Sor & Coruche

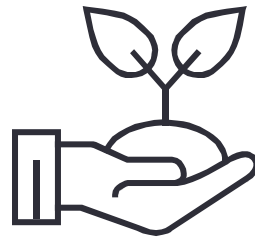
Economic and social impact assessment, EY-Parthenon 2019

Environmental, Social and Economic Impact

The quantified indirect and induced impacts show that our impact goes way beyond the financial statements



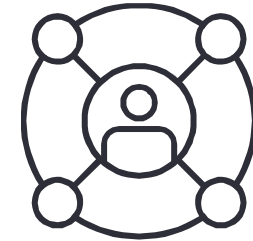
Cork oak montado ecosystem services



Environmental impact



Economic and social impact

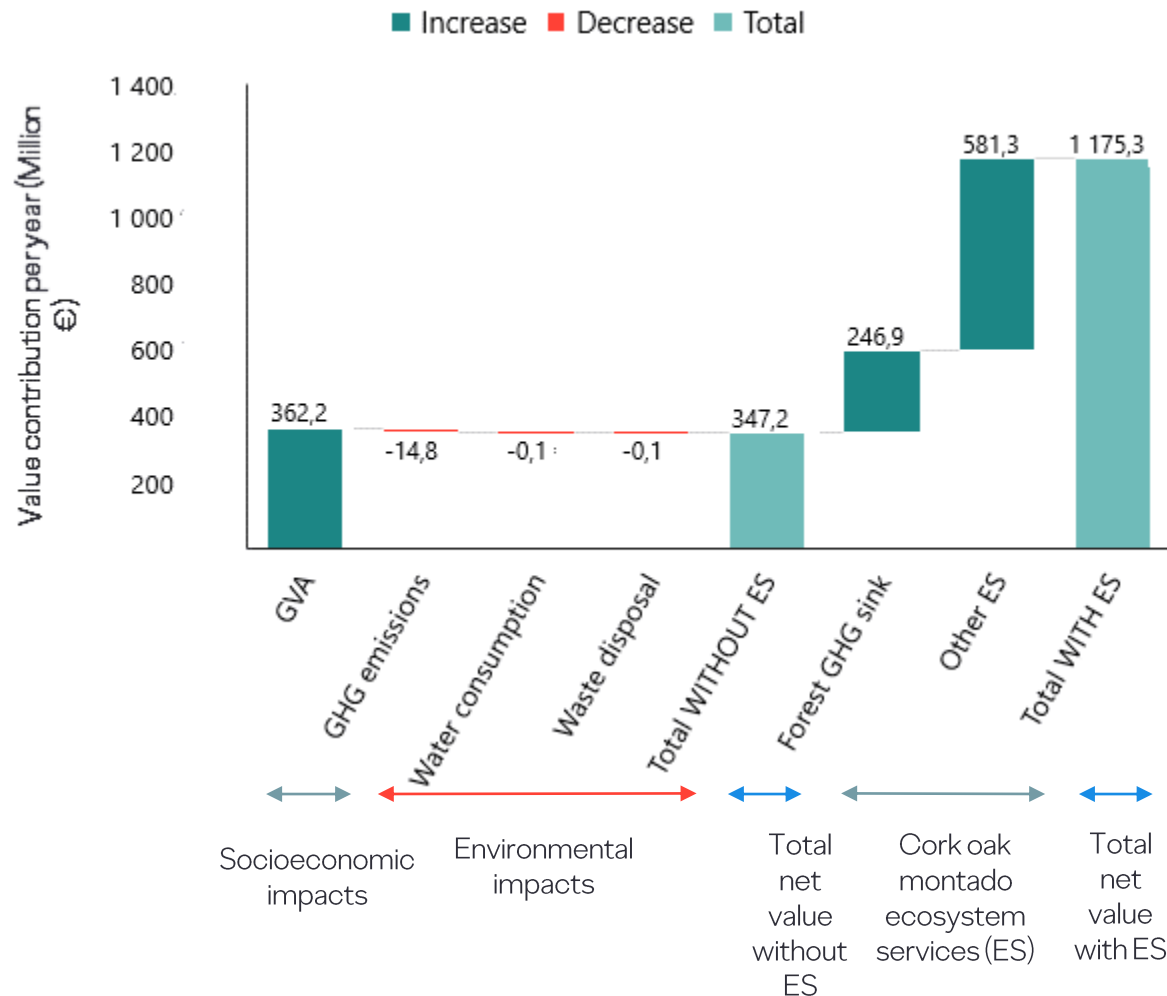


Total Value



Environmental, social, economic impact study, EY 2019

Environmental, Social and Economic Impact



Total net value contributions to **society** by **Corticeira Amorim** direct, indirect and induced impacts, including the contribution of cork oak montado ecosystem services is over

1 billion euros per year

Over 7x the direct GVA

Environmental, social, economic impact study, EY 2019

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AMORIM

Sustainable by nature
