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# forest management and biodiversity protection

## Developing and recovering the forest

It all starts in the forest, which in addition to being one of the most important assets for Altri's value chain, is fundamental for life on the Planet and for the sustainable development of future generations, which is why its management, protection and appreciation are considered strategic.

Of the resources provided by the forest, such as wood and biomass, there is a wide range of applications that the cellulosic fibre industry has been exploring for decades, namely:

### Cellulose

40-55%



Paper



Packaging



Hygiene



Textiles

### Lignin

20-30%



Dispersants



Animal feed



Cars, tires and batteries



Resin and glue

### Hemicellulose

15-30%



Sweetener



Cosmetics



Tanning



Pharmaceuticals

### Extractables

2-5%

### Ashes

1-3%

# forest management and biodiversity protection

Through Altri Florestal, about 90 thousand hectares of forest are managed in national territory. This management is based on the optimisation of productive capacity, through a long-term forestry model and sustainable management of this resource.



# forest management and biodiversity protection



## Fire protection

Fires are one of the biggest threats to forests, particularly in the national context, where Altri develops its activity. Altri is aware of this reality and celebrates the 20th anniversary of the creation of AFOCELCA, a Forest Protection Company dedicated to the fight against rural fires. Today, AFOCELCA represents a solid cooperative project, capable of creating bridges between the public and the private, between the forest and civil protection, and between tradition and the vanguard.



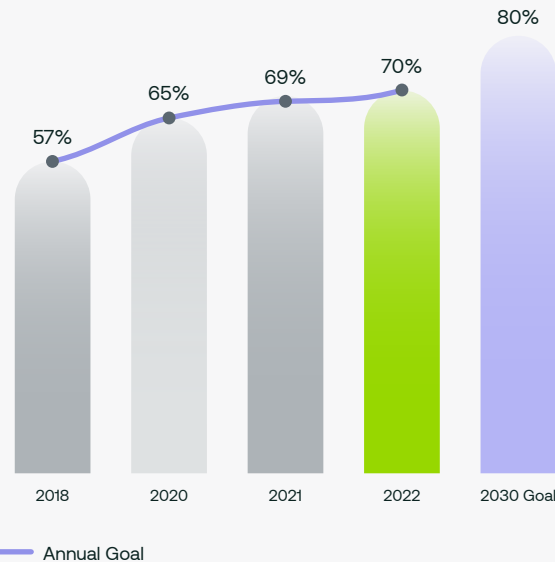
## Certified wood

In 2022, Altri Florestal supplied the Group's industrial units with 70% of FSC® and PEFC™ certified wood. The certification process follows strict criteria to measure environmental preservation, respect for labour and human rights laws and ethical behaviour, ensuring sustainable procurement practices.

This type of certification is a safety supplement and a guarantee that the Forest Management and Wood Supply policies are respected by all suppliers. This is the result of continuous work in encouraging good forest management of raw material suppliers and in the valuation of wood, achieved through price differentiation in certified wood.

Altri Florestal is also part of the two national associations representing FSC® and PEFC™, actively participating in the construction of forest management regulations.

## Certified wood



## Operational Indicators for 2022

**5,153** alerts  
wild fire alerts

**68%**  
with intervention by AFOCELCA

**32%**  
of incidentes without danger



In addition to fire protection, Altri also restores areas affected by the fires. For this, the Fénix Project stands out.



### Fénix Project

This project represents the rebirth of the ashes and is created by Altri Florestal's will to recover areas plagued by fires that occurred in the interior of the country. This project takes place essentially in small rural properties, proceeding to its recovery after fire in eucalyptus areas, breaking its abandonment and promoting its production, making the exploitation profitable.

#### Project objectives:

Provide 500 hectares of eucalyptus stands, with:

- Reduction of densities (thinning of stumps);
- Elimination of invasive species and scrubs;
- Cutting dead sticks resulting from fires.

Vila de Rei was the site chosen to start this pilot project, since it has been widely and recurrently affected by successive fires in recent decades. Much of the forest heritage of Vila de Rei is abandoned, despite its productive potential.

Most owners are skeptical from forest investment due to the successive losses. Thus, with the interventions carried out so far, the Fénix project was able to convey a sense of hope and joy to the owners by (re)seeing their areas managed in a new life cycle.

altriflorestal **projeto fénix**

altri **Biond**<sup>o</sup> Forest fibers from Portugal

### Pedrógão ReBorn Project

Through Biond – Forest Fibers from Portugal, of which Altri is part, the project “Pedrógão ReBorn” was developed to value the land giving rise to a new forest, together with small local owners.

In this synergistic partnership, to promote biodiversity, especially in forest areas, as a result of the joint work in creating an orderly, certified and valuable forest, the most diverse tools were made available to meet the proposed objectives. Tools are mainly focused on the preparation of the land, on the transfer of fertilisers and plants for planting, as well as on the creation of paths and firebreaks that will allow to effectively manage the implicit needs.

Accounting for more than 30 hectares intervened in 2022, the pilot project allowed to avoid the abandonment of forest land, contributing to its protection mainly in the fight against fires.







## Biodiversity

One of Altri's priorities is the **conservation of biodiversity**, especially in areas with a relevant ecological value. Forests have intrinsic value, act as a shelter for biodiversity, provide natural resources, boost carbon sequestration, contribute to mitigating the effects of climate change, besides other benefits. Recognising critical links between humans and nature is the key to effective conservation.

Biodiversity as a priority is based on Altri's corporate strategy, defending values such as the conservation of biological diversity, the sustainable use of resources and the fair distribution of benefits derived from that use.

## altridiversity

The Altri Diversity programme is one of the tools of the Altri Group, central to the strategy of conservation and promotion of biological diversity and landscape, which aims to conduct the company's action in the protection and recovery of natural spaces present in forest areas under Altri Florestal management. Under this programme, the following projects were developed:

### Promote and restore biodiversity

In 2021, Altri became a signatory of Act4nature Portugal, an initiative promoted by BCSD Portugal within the framework of Act4nature International, launched in France in 2018, with the aim of mobilizing companies to protect, promote and restore biodiversity. The membership of Act4nature Portugal is materialised by the subscription of 10 transversal commitments to all companies and individual commitments. The alignment of the **7 commitments of the Act4Nature initiative** with the **2030 Commitment** of Altri, which in turn contributes to the United Nations Sustainable Development Goals is pointed out.

**act4nature**  
Empresas pela Biodiversidade



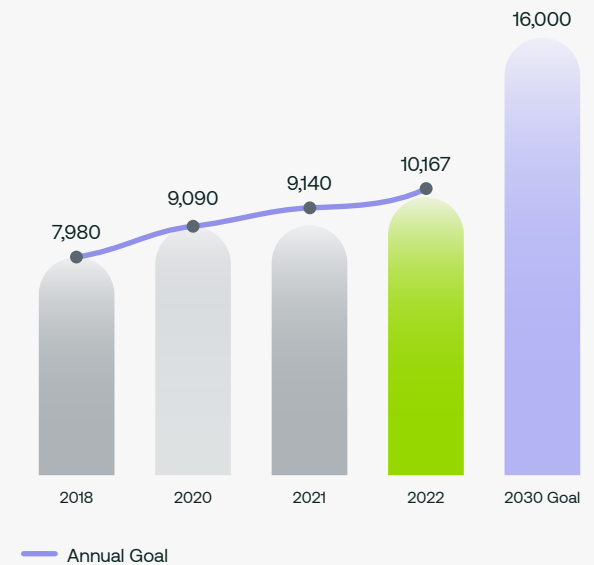
# 5.1 forest management and biodiversity protection



## Conservation Areas

Altri continues to increase the conservation area under its management, through a strategy to raise new management areas, actively searching for areas with classified habitats, high conservation values or conservation potential.

Natural conservation area (ha)



2020 UN BIODIVERSITY CONFERENCE  
COP 15 / CP-MOP 10 / NP-MOP 4  
Ecological Civilization-Building a Shared Future for All Life on Earth  
KUNMING – MONTREAL

## Biodiversity conference COP15

The Altri Group signed the BCSD Portugal Manifesto: “For an agreement for Nature at COP15”. The COP15 Biodiversity Conference was held in December 2022 and aimed to adopt a global strategy for post-2020 Biodiversity, to halt the global loss of biodiversity by 2030, and promote the recovery of natural ecosystems. It highlights the action of all: public sector, private sector, universities, civil and individual society.



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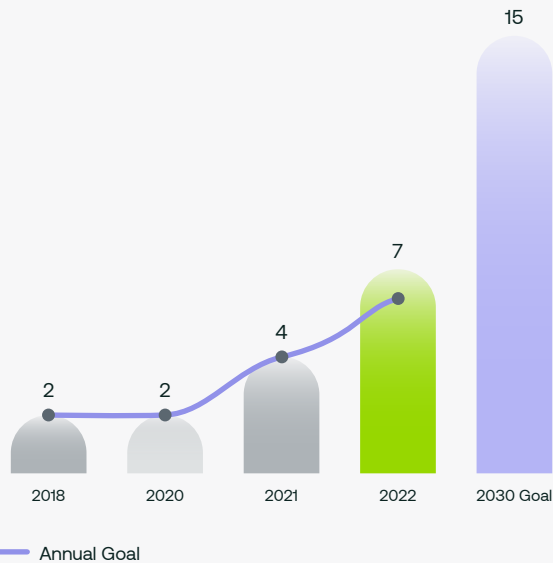
# 5.1 forest management and biodiversity protection



## Biodiversity Stations

In addition to increasing the conservation areas, Altri has maintained its efforts to extend the internal project to create biodiversity stations and biospots. Altri relies on the support of experts and scientific entities, to obtain a good representation of the natural values of the various regions where it is actively present, in order to rehabilitate and promote them.

### Biodiversity Stations and Biospots (no.)



In 2022, three new Biodiversity Stations (EBIO) were created:

- Living Science Centre Biospot in Constância
- Biotek Biodiversity Station
- Galisteu Center for Interpretation of Biodiversity.

Altri has maintained its efforts to extend the internal project to create biodiversity stations and biospots.



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### Monitoring of Invertebrates in Biodiversity Stations

In the context of the creation of Biodiversity Stations in forests under Altri management, the monitoring of invertebrates, particularly the group of Butterflies and Dragonflies, assumes a special relevance in the characterization of habitats and in the research on their diversity.

The four biodiversity stations already installed to date (Ribeira da Foz, Furadouro, Cabeço Santo and Palmeiro), based on the monitoring efforts, showed in the results a high diversity of species associated with the degree of conservation of the habitats present in each EBIO (water course, riparian gallery, shrub and arboreal vegetation of the edges and forest).

The association between species and their habitats allows forest management to adapt or change practices that promote the preservation and improvement of habitats and consequently the number and diversity of species.

A total of 246 insect species were identified in the Biodiversity Stations.

### Medronho XXI Project

The strawberry tree (*Arbutus unedo L.*) is a woody species of shrub size and is spontaneously distributed in Mediterranean countries. In ecological terms, it is considered an extremely resilient species to abiotic and biotic stress. The interest and study of this species has been increasing in recent years, as an alternative to other forest species, or in the agricultural field with the objective of fruit production for the most diverse purposes such as traditional products, pharmaceuticals and cosmetics.

In this project, strawberry tree micropropagation protocols are being optimised, from in vitro establishment, multiplication, rooting and acclimatization. Micropropagation emerges as a fundamental element for the strategic evolution of the company, enabling the production of high quality strawberry tree plants, with the future objective of extrapolating the method to other species.

### Project To Evaluate Ecological Integrity and Study of Biological Communities of Ribeira de Alferreira

The Ribeira de Alferreira exhibits a high state of conservation of the riparian corridor, and in its basin there are no other relevant anthropogenic disturbances. This ecological corridor includes woods bordering the alder of *Alnus glutinosa*, *Black Willow Salix atrocinera*, *Fraxinus angustifolia* and *White willow Salix salvifolia*.



### Training Action on Invasive Species

In a partnership between Altri Florestal and the Center for Functional Ecology of the University of Coimbra, a training action was carried out on invasive species, with special emphasis on coiled acacia, *Acacia Longifolia*.

The action consisted of presenting one of the approaches to combat the proliferation of this invasive species using a specific insect for this purpose, *Trichilogaster acaciaelongifoliae*. This insect, that uses the plant to lay its eggs, prevents the development of coiled acacia, increasing the viability of forests.