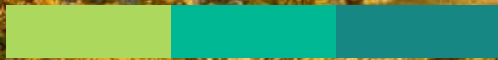


# 2025

Annual Impact  
Report

*Sobreiro,  
Cork Oak  
Quercus suber*

**FIGHTING  
CLIMATE  
CHANGE**



# A Year of Bloom



URBEM

COMMUNITY ·  
NATURE ·  
CONNECTION ·

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# Spotlight

## Sobreiro, Cork Oak



A quiet hero in the fight against desertification, this evergreen tree is prized for its bark which is used to make everything from wine stoppers to flooring, and even insulation for space instruments. It can live as long as four centuries and is a hardy sun-loving survivor that thrives even in poor soils and through forest fires.

The *montados* (or managed cork habitats) are of great cultural and biodiversity significance in Portugal. The tree is featured on the coat of arms of several Portuguese towns, and cork oak savannahs are home to Iberian lynx and imperial eagles. Its acorns have also been a staple food source across the Iberian peninsula since the Bronze Age, until as recently as the 1970s in Portugal. The bark is harvested every nine years by highly specialised labourers, a skill that is increasingly rare and requires in-depth training to ensure the trees are not damaged or killed in the process.

Cork is a renewable resource and one of the most important commercial crops – a rare case where ecological and economic value go hand in hand.



# We believe that through the power of communities and nature we can make cities more beautiful and liveable – for people living now and future generations.

## Table of Contents

The Big Picture	03
Our Partners	04
Statement from the Board	05
FastForest® plots update	09
Strategic Goals and Achievements	10
Spotlight	13
Featured in the news and social media analytics	15
Community and Events Calendar	18
Partner Projects	19
Sustainable Development Goals	20
How Things Are Going	21
Biodiversity update	23
iNaturalist Citizen Science Project	28
Impact Indicators	29
Next Steps	34

Urbem Forests Association is an environmental NGO dedicated to restoring urban ecosystems with native forests.



### COMMUNITY · NATURE · CONNECTION ·

Our mission is to connect people with nature, to each other, and to themselves. We do this by creating and caring for Miyawaki forests and applying nature-based solutions across Lisbon. In this way we make the city happier and more liveable, and resilient to the impacts of climate change.

### The 3 things we do

1. In collaboration with communities and local government, we design, plant, care for, and monitor Miyawaki forests across the Lisbon Metropolitan Area.
2. We inspire and educate people of all ages by creating experiences that invite them to let nature into their lives more fully.
3. We pilot a broader set of nature-based solutions that future proof cities and support others to do the same, both in Portugal and beyond.

## Our partners

# Thank you for all the support



CML (Câmara Municipal de Lisboa) has been our premier land partner, with continuous support with resources (primarily plants) and knowledge sharing. We are proud of this groundbreaking standard for private-public partnerships in sustainability in Lisbon.



The Butterfly Conservation Center of Portugal, is a non-profit organisation focused on scientific research, knowledge dissemination, and preserving butterfly habitats. We collaborate with them on knowledge sharing and the creation of informational signboards at our plots.



Marca-ADL – Associação de Desenvolvimento Local – an ONGA that aims to promote the social and economical development of rural areas, particularly in Montemor-o-Novo. It is one of the plant nurseries that provides quality native species to create our forests.



Resulting from the merger of the Hospital Júlio de Matos and Hospital Miguel Bombarda, and now integrated in the Unidade Local de Saúde São José. It gives an invaluable contribution to the health of the adult population, with specialised psychiatric and mental health care.



One of Portugal's largest and most prestigious law firms – Urbem is one of their pro-bono projects and our constant support for all matters legal.



Our primary supplier for native seedlings with over 150 species of Portuguese plants, sourced from seeds collected in the wild with guaranteed provenance.



Founded in 2013, as a result of the merger between three different Juntas de Freguesia - Alvalade, Campo Grande and São João de Brito – it is the 5th most populated Freguesia in Lisbon, home to 33,000 people. Within its territory it contains multiple green spaces such as the Jardim do Campo Grande and a network of horticultural Parks.



A festival where the collaboration between gardening, landscaping, culture and sustainability professionals has enabled the opening of the gates of the country's most beautiful gardens free of charge. Urbem's forests have featured in the festival for three years running now.



A network that connects different NGOs and entities creating tiny forests in Portugal based on the Miyawaki method.



Our partner for valuable mulch – our plants thrive and are protected by the waste they give us from their mushroom farming operations.



A leading environmental waste management company in Lisbon, our primary source of organic compost.



Founded in 1911, Instituto Superior Técnico is the leading faculty in engineering, architecture, science and technology in Portugal, with over 12,000 people working and studying. It is regarded as one of the most reputable engineering institutions in Europe.



Founded in 2012, as a result of the merger between two different Juntas de Freguesia - Alto do Pina and São João de Deus – it is home to 20,000 people and one of the only freguesias to have both a Department of Environment and Animal Welfare and a Green Flag Award, demonstrating its commitment to the protection of nature and community engagement.



# The Big Picture



## Statement from our Founder

2025 has been truly a year of bloom for Urbem. Our existing forests are flourishing and the “relationship seeds” our board members took so much pains to plant over the last couple of years have finally borne fruit and resulted in some groundbreaking partnerships with freguesias and universities. Our agreement with the Areeiro freguesia is our first ever paid engagement with a local parish and was swiftly followed with one with Alvalade. On top of this, we have kicked off a project with the Instituto Tecnico (ULisboa) for a forest on their premises which will examine the effects of trees on urban heat islands. We hope other public institutions will follow suit in 2026 with partnerships with us, as we aim to build on this momentum

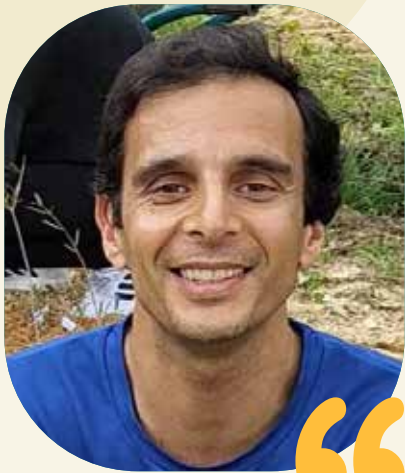
We have also been pleased by the return of old friends, with regular team building events with corporates like PLMJ and others featuring in our 2025 calendar. We are also privileged to be a regular fixture on the Jardins Abertos circuit. We have also finally garnered enough topline revenue to have to start paying VAT – a happy outcome on our road towards financial sustainability.

2026 looks to be a very promising year as we branch out and grow even further whilst rooting ourselves in the ground support we have built so far. A big thanks again to our board members whose unstinting perseverance and creativity makes them personally an inspiration to me and a pleasure to work alongside.



**Sasi Kandasamy**  
Founder/Chair





**João Fernandes**  
Vice President

Year after year, we have been able to exceed our goals and significantly increase the number of activities within the community. The work carried out in 2025 and Urbem Forests' current reputation have contributed to its success, combined with a cohesive management team focused on its mission.

This past year, with determination and resolve, we have managed to expand our presence into new parishes, attract new partners, and reach more public and private institutions. If we continue at this pace, we will soon realise our dream of having a permanent team working at Urbem that is financially self-sufficient.

For me, these last three years as a member of the board have provided immense personal growth.

The year of 2025 marks an important stepping stone for Urbem. Not only did we continue to manage and enjoy the already rooted forests but we were also able to create forests in new settings such as the one at Instituto Superior Técnico, one of the most prestigious universities in Portugal and in Europe.

The forests created with Junta de Freguesia, do Areeiro, and Alvalade reminded us that more and more people are willing to get their hands dirty, which gives me a lot of hope for the future of our cities!

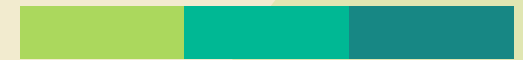
**Antonio Alexandre**  
Board Member



**James Barrett**  
Board Member

This past year has been a big one, but not without its challenges. Nevertheless, some highlights for me in 2025 were running monthly sessions with staff and patients at our therapeutic forest in Júlio de Matos hospital, watching them grow in confidence and knowledge and even creating their own mini-horta alongside the forest. Secondly, this year I've had the opportunity to implement more water conservation techniques into our forests; bringing more of my professional work into Urbem, and something I hope to do more of for our future forests in 2026.

As a team we've been able to overcome obstacles to forge great partnership with new freguesias, companies, and organisations. Moreover, the growth of our community and passion they demonstrate has been truly humbling.



# Statement from the board



## Statement from the board



### Ivo Rosa Board Member

2025 was a year of consolidation and growth. Our foundations took root, giving us the strength to weather the storms. With that support beneath us, we are now free to grow upward and outward, to be adventurous, to explore, and to try new paths.

2025 has been a great year for us: from seeing our first forests flourish, to planting new ones, to setting up Urbem's first nurseries. We are witnessing the first real signs of the Miyawaki method becoming recognised as the model for Lisbon's liveability and resilience.

I consider myself very lucky to have the opportunity to work with, and learn from this team.

### Hugo Warner Board Member



2025 was a fantastic year for Urbem. After almost two years of trying, we finally managed to build two more forests, Areeiro and ULisboa, and we are on our way to building another one. It was a year of consolidation, and at the same time of growth, establishing new partnerships and securing more funding.

### Rita Barrela Board Member



# Why microforests?

## Support

1. Carbon sinks due to the abundance and diversity of species
2. Promotes native and local biodiversity

## Regulation

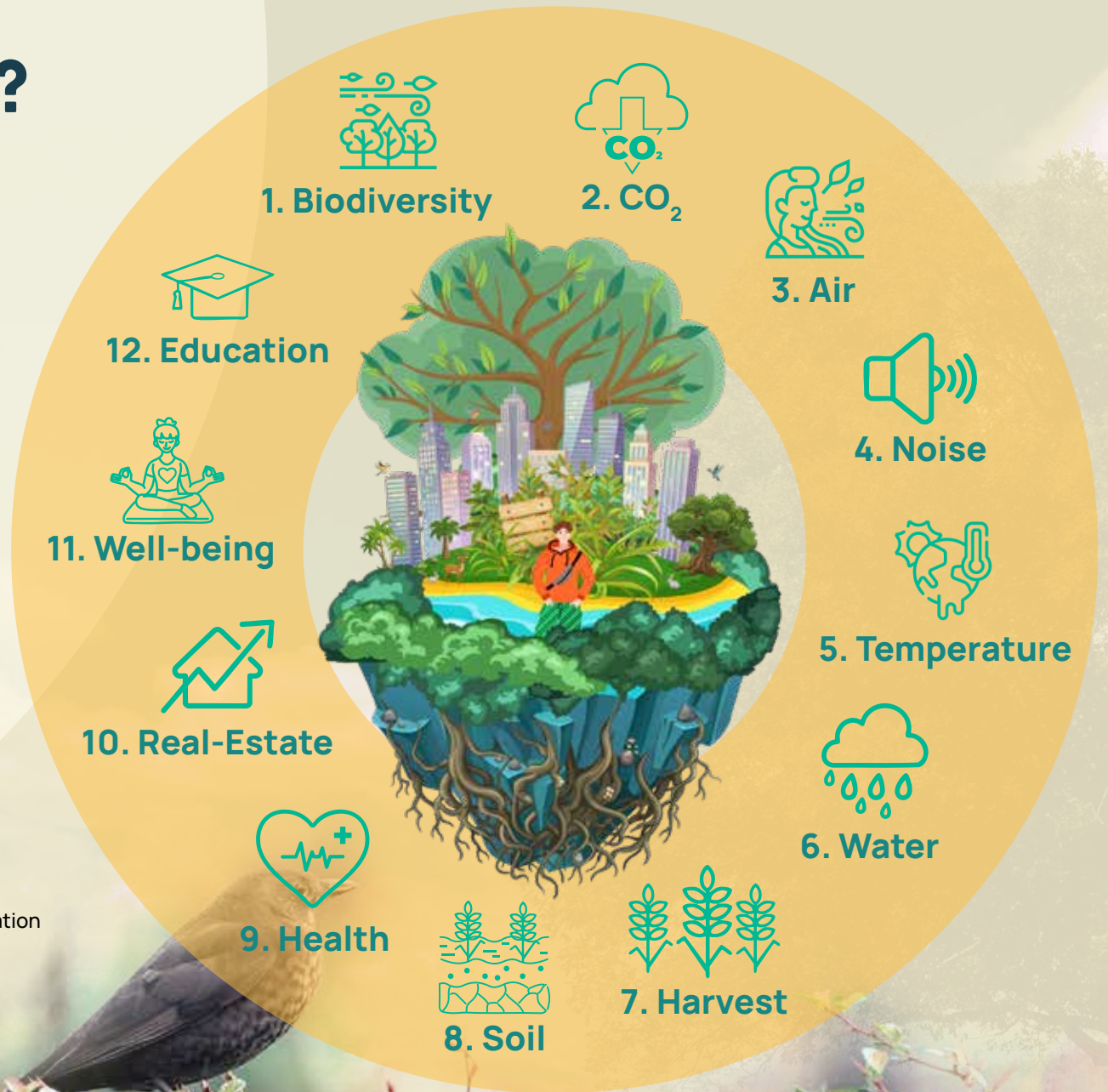
3. Pollutant microparticle absorption
4. Noise reduction from transportation and/or industry
5. Direct contribution to the diminishment of heat island effect
6. Water retention and increased infiltration rates

## Provisioning

7. Food and herb provision for the surrounding communities
8. Soil quality promotes faster and more resilient growth
9. Decrease of respiratory and cardiovascular diseases

## Cultural

10. Increased value of real-estate in its surroundings
11. Increased well-being through decrease in stress and loneliness
12. Environmental and sustainability education and cultural preservation



# 3 major issues facing cities today, and Urbem's solution

## Problems



Hyper urbanisation causing degraded natural environments



Lack of public access to / awareness of nature-based solutions



Pressure on public budgets and staffing



## Urbem's Solution



Naturally resilient, biodiverse mini forests



Civic participation and community building



Financially sustainable methodology with both private and public sectors

# 2025 Strategic Goals and Achievements



## Begin the legal process to register Urbem as a 'public utility' for expanded activities and funding

This process has started, we have created the framework for this and will be setting this in motion in 2026, hopefully receiving regulatory approval by then.



## Establish a tree nursery to improve plant quality and availability

To guarantee seedling quality and variety, and to become more self-sustainable, we have initiated a nursery with Escola Básica de Santa Clara, where children sow and take care of the plants until they are ready to be planted in our forests. We also have a small nursery in our horta premises. This way we educate for the short and long term, using seeds collected at our forests, already adapted to each plot's characteristics.



## Expand our forests in Bela Vista Park by at least 300 sqm, incorporating more scientific experiments (FF1 and FF2)

Increasing the area of FF1, our first forest in Bela-Vista, using the help of the community to create erosion and water retention structures in an inclined area, which is a challenging but common type of land in Lisbon. In FF2, we completed the expansion of the forest to occupy the full extent of our leased areas, controlling invasive species along the way and planting a few hundreds of native species in their place.



## Plant a new forest in partnership with a Lisbon freguesia (parish)

We managed to launch 3 year projects with both Areeiro and Alvalade. We have also done a campaign outreach to 8 others, and hope these will bear result in the coming year.



## Launch fundraising campaigns and corporate events to secure more funding

- We saw the highest ever revenue so far for Urbem this year, mainly thanks to the funded partnership projects with Areeiro, Alvalade and the Instituto Superior Tecnico.
- We also have a steady paid programme of corporate employee team building events, though more can be done to expand this - the demand is high, however our access to public land is still fairly limited in comparison.
- We applied for 5 large grants, however the outcome was mostly negative with nearly all rejected and only one shortlisted. One constructive feedback received from an incubator fund was that we need to focus more on refining our commercial model so we will be taking this into account for 2026.



## Finalise Urbem's three-year strategic plan

Early in 2025 we worked to redefine our mission and vision, our three year goals, target operating model and our resourcing needs. We will continue to refine this process.

# 2025

## Strategic Goals and Achievements



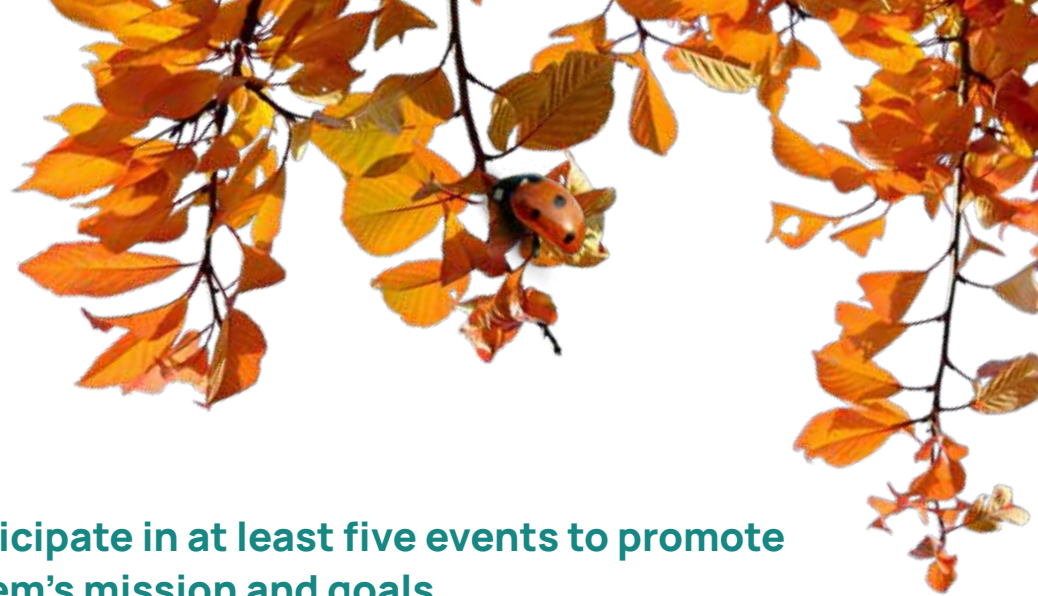
### Strengthen existing partnerships and build at least three new collaborations with institutions and NGOs

This was a spectacular success with our first university partnership, with Instituto Técnico. We also became part of the Rede Miniflorestas Portugal with five other collaborators, further contributing to the spread of the concepts of urban reforestation using the Miyawaki method with a strong community engagement element.



### Grow our social media reach and engagement by 30%

Including our Meetup community – we made 46 posts across each of our social media channels (LinkedIn, Facebook and Instagram). Instagram is our most popular social media channel which is also generating corporate event leads for us. On Meetup we have seen a growth of over 224 members which represents about a 19% increase on our user base. We need to optimise our social media strategy to better meet our goals.



### Participate in at least five events to promote Urbem's mission and goals

- **Conferência I Soluções de Base Natural: respostas climáticas em Lisboa** – we were invited by ANPIWWF, a Câmara Municipal de Lisboa and the Junta de Freguesia de Alvalade to talk about our work in Lisbon. This event then contributed to the creation of the tiny forest at Técnico.
- **Junitec fair at Instituto Superior Técnico** – we were invited to participate at the fair organized by Junitec – Júnior Empresas do Instituto Superior Técnico – to talk about our work amongst other NGOs. From this event we also gathered the contact of different students who would then be part of the tiny forest community at Técnico.
- **Pecha Kucha Night #34!** We were invited by Pecha Kucha Lisboa to present what tiny forests are, the Miyawaki method and what we have been doing for the last 3 years in Lisbon.
- **Olivais em Ação** – We were invited to speak on the topic of tiny forests in a round table, as a way to transform lawns and abandoned areas within cities.
- **Ethical Assembly** – we were invited as a roundtable speaker to represent Urbem's experience and views on urban regeneration and many of our board members and associates were able to network with many important contacts in the Lisbon sustainability community.
- **British School of Lisbon** – Urbem had a speech to about 50 teenage students at their Restelo campus on Nov 20 on the importance of urban forests and engaged the children on a seed-bomb making exercise.

# Updates from our growing FastForest® plots



## FF1 Fast Forest 1 - Park Casal Vitoso

Our original forest is thriving beyond our wildest expectations, even though the maintenance was more difficult due to the slope of the plot.



## FF2 Fast Forest 2 - Park Vale da Montanha

The largest public Miyawaki forest in Lisbon, with very interesting experiments on pond-life, water conservation, and the centre of our regular community gatherings.



## APA (Portuguese Environment Agency)

Our first example of a forest planted with a public organisation in their office premises. Maintained and cared-for by the employees, it is a fitting practical tribute to the environmental work they already do.



## Therapeutic Mini Forest - Centro Hospitalar Psiquiátrico de Lisboa - Unidade de Alcoologia de Lisboa (UAL)

Bringing together multiple partnerships to help the employees and patients of the Alcohol Treatment Unit at the hospital to benefit from nature therapy.

## New Additions in 2025



## Freguesia de Areeiro

Urbem's first paid project with a freguesia, with active community participation and a long term approach.



## Freguesia de Alvalade

Our second freguesia project, this time in a highly urbanised area with a lot of foot fall and visibility.



## Instituto Superior Técnico - ULisboa

Urbem's first collaboration with a University - a structured experiment on effects of trees on urban heat islands.



**Centro Hospitalar Psiquiátrico de Lisboa**

**Parque Bela Vista - Fast Forest® Two**

**Parque Bela Vista - Fast Forest® One**

**Instituto Superior Técnico (IST)**

**Areeiro**

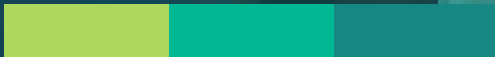
**Alvalade**

**Agência Portuguesa do Ambiente (APA)**

**MINIFLORESTAS DA**



**URBEM**  
COMMUNITY · NATURE · CONNECTION



Expanding our miniforest network and connections

## AREIRO PARTNERSHIP

Following a long-standing conversation with the Areiro Parish Council, in 2025 the conditions were agreed to move forward with the installation of the first Miyawaki mini-forest in this parish. The project was very well received by the Parish leadership, who supported us unconditionally throughout the process. The decision was made at the Parish Assembly on 24 June, and the cooperation protocol was signed on 4 July.



# SPOTLIGHT

All this advance planning gave us the opportunity to plan and execute all stages of the process properly, well in time for the November planting period. Preliminary sessions were held with the community to explain the project and methodology, and they were given the opportunity to participate in some of the decision-making. The response was very positive, with preparatory work beginning in October (manual digging of infiltration ditches, marking of paths, installation of information panels, etc.). By December, most of the forest had already been planted (more than 1,000 plants were put in the ground), and everything was finished with the application of Nãm mushroom mulch. Enthusiasm for the new structure is high, and the community eagerly awaits the launch of more activities in 2026.



## INSTITUTO TÉCNICO

The forest at Instituto Superior Técnico – ULisboa (IST) is one of our proudest achievements of the year. It all began with Clementina, a former chemistry professor at the institution, a plant and seed enthusiast and a regular volunteer at Urbem. As a fan of the work developed by Urbem, Clementina introduced the idea to one of the directors at IST, who was very pleased with the idea of having such a space within its walls. In addition, the role Clementina played in the Junitec event, where she represented Urbem's work, helped in sealing the deal for the creation of this forest. A perfect example of the importance of our volunteers and the power of connections. A forest with 250 m2 and around 500 native plants that contributes greatly to IST's mission towards a more sustainable campus and a community more connected with nature. This forest will be taken care of by the community with the help of our team and who knows, maybe next year we may be able to expand within its campus



# SPOTLIGHT

## HORTA (COMMUNITY GARDEN PROJECT)

Our collaboration with the Areeiro Parish Council (JFA) dates back to 2022, when we installed our second microforest in Vale do Casal Vistoso. Since then, we have maintained very cordial relations with the Green Spaces Centre, with some occasional cooperation. In 2025, with the aim of extending community activities beyond forest areas, we asked the JFA, with the agreement of the Lisbon City Council, to grant us a plot of land in the Casal Vistoso horticultural park to develop a community garden. The request was immediately granted, and we are extremely grateful for the trust placed in us.

Our approach was to involve the urban community in horticultural activities, providing a first contact with the land and some introductory information for those who

wanted to take their first steps in creating a vegetable garden. We constantly reinforced awareness of the need for balance with nature and sustainable farming practices, demonstrating the benefits of a diet based on local and seasonal foods. A small area was set aside for a nursery to supply and replenish some of the plants in our microforests, based on seeds collected from the surrounding forests and the Montanha and Belavista Urban Park.

We were very well received by the existing gardeners in the area, who gave us extraordinary help both in sharing their knowledge and in providing us with some specific tools and seeds and plants. We immediately realised the importance of these social structures in a community.



# Jardins Abertos 2025

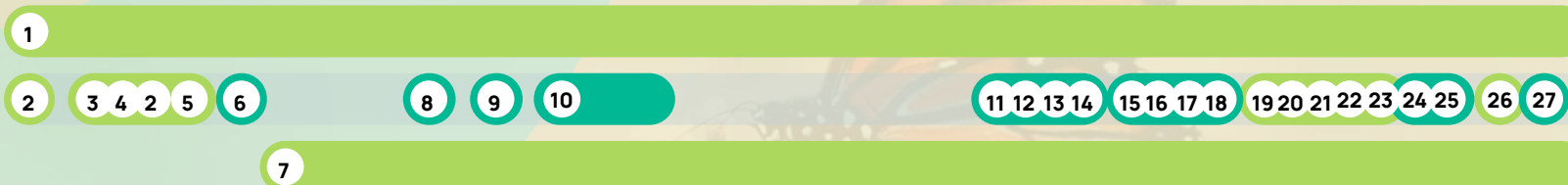
A festival where the collaboration between gardening, landscaping, culture and sustainability professionals has enabled the opening of the gates of the country's most beautiful gardens free of charge. Urbem's forests have featured in the festival for three years running now.



# Community Events held in 2025

Fast Forest Development ●  
Social Gathering & Other Events ●

Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec



**926+**  
Volunteers and participants in attendance

- Forest maintenance at Bela Vista Park:** Involving watering, weeding, mulching, and maintaining the plants & ponds - minimum 10 volunteers weekly (45 sessions)
- Therapeutic Forest – Centro Hospitalar Psiquiátrico de Lisboa - Unidade de Alcoologia de Lisboa** (1st January & 1st February) - 45 volunteers
- Urbem Forests - Plantação** (18th January) - 50 volunteers
- Escuteiros – CNE JN Oriental – SNP** (25th January) - 30 volunteers
- PLMJ** (14th & 15th February) - 30 volunteers
- Egas Moniz University** (26th February)
- Therapeutic Forest – Centro Hospitalar Psiquiátrico de Lisboa - Unidade de Alcoologia de Lisboa** (1st of every month starting March to December) - 45 volunteers
- Pecha Kucha** (5th April)
- Earth Day** with a leading global consultancy firm (21st April) - 25 volunteers
- 14th Edition Jardins Abertos Festival (Life Lungs)** (3 & 4, 10 & 11, 17 & 18 and 24 & 25 of May)
- Mini-Forest Network – Meeting** (6th September) - 30 volunteers
- Areeiro – Introduction to the Community** (13th September) - 24 volunteers
- Ismaelita Community** (27th September)
- Olivais em Acção – Discussion on public spaces** (30th September)
- Instituto Superior Técnico – Introduction to the Community** (1st October) - 18 volunteers
- Areeiro – 2nd session – Forest site** (1st October) - 10 volunteers
- Instituto Superior Técnico – Forest site** (16th October) - 8 volunteers
- Observa Laguna** (18th & 19th October)
- Areeiro – 3rd session – Preparing the area** (8th November) - 27 volunteers
- Instituto Superior Técnico – Preparing the area** (13th November) - 15 volunteers
- Areeiro – Planting the forest** (15th November) - 45 volunteers
- Instituto Superior Técnico – Planting the forest** (20th November) - 23 volunteers
- British School - 10 to 13 year students** (20th November) - 50 volunteers
- Alvalade – Introduction to the Community** (22nd November) - 12 volunteers
- Ethical Assembly** (29th November)
- Alvalade – Forest site** (6th December) - 29 volunteers
- Inatel** (13th December) - 10 volunteers

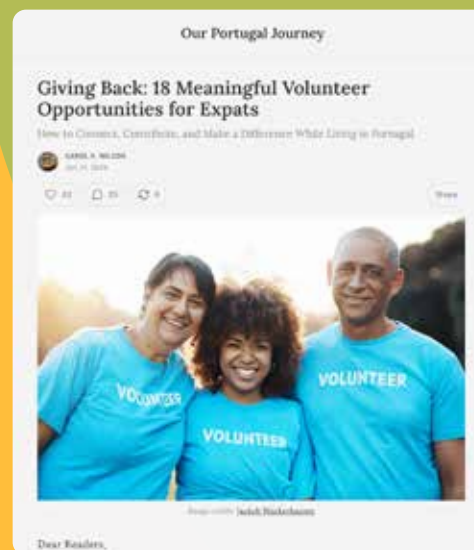
# Featured in the news and social media in 2025



More Than Stories (MTS)  
Video



Técnico plants mini-forest to “bring the forest back to the city”  
Instituto Superior Técnico - Universidade de Lisboa



Giving Back: 18 Meaningful Volunteer Opportunities for Expats  
Our Portugal Journey



Accredited Civil Society Organization (CSO)  
United Nations Convention to Combat Desertification

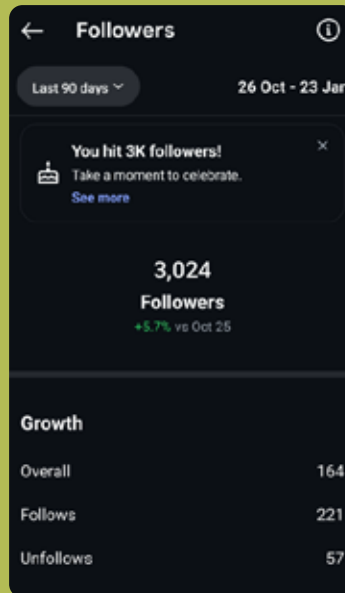
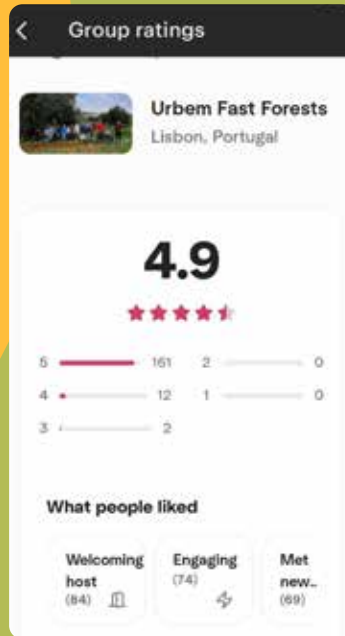
View all coverage of Urbem Forests in the media by visiting  
[www.urbem.co/media](http://www.urbem.co/media)


# Urbem's Social Media

## 2025 Digital Metrics

Our most viewed posts were related to community partnerships, planting and events. We have also exceeded 3,000 followers on Instagram. Our Meetup engagement continues strong, with a consistent 4.9 star (out of 5) rating and attendees referring to our welcoming hosts, engaging sessions and meeting new people as characteristics they most liked about our events.

However we need to work further on using these channels to deliver results for us, including more corporate team building events, crowd-funding, raising awareness with freguesias and other public bodies.



 **Website**  
**2400+**  
 Active Users  
**3600+**  
 Total Post Views  
**294+**  
 Newsletter  
 Subscribers  
**2700+**  
 Direct and  
 Organic Traffic



# Our Community

**Urbem Fast Forests**

**4.9**

★★★★★

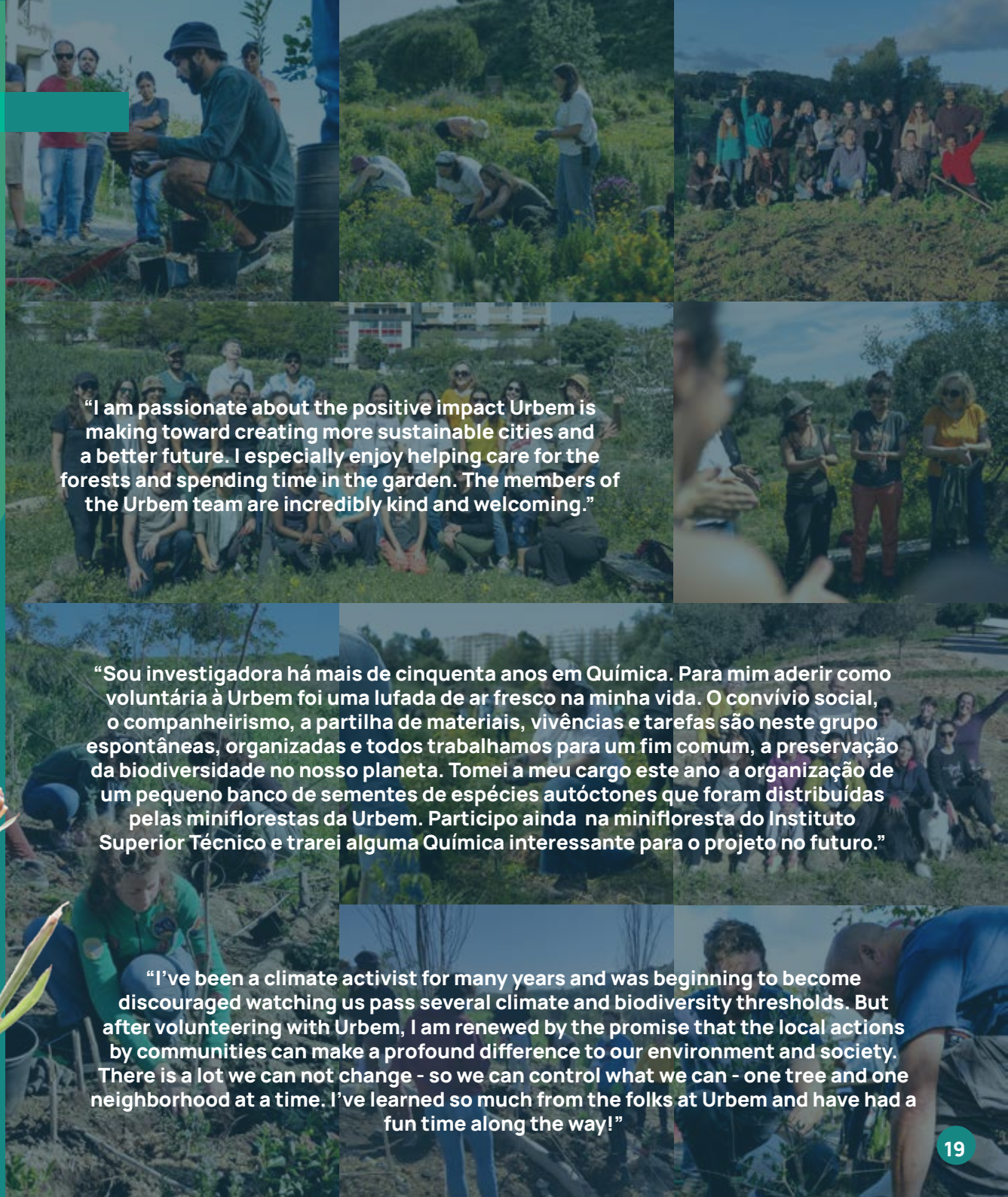
5	161	2	0
4	12	1	0
3	2		

**What people liked**

Welcoming host (84)	Engaging (74)	Met new... (69)
---------------------	---------------	-----------------

Many of our events were advertised via the online platform MeetUp. Across 200 reviews, our events were rated 4.9 out of 5 and rank highly on scores such as “welcoming host”, “engaging”, “I felt safe” and “made an impact”.

Showcased here are some of our most memorable quotes from volunteers.



“I am passionate about the positive impact Urbem is making toward creating more sustainable cities and a better future. I especially enjoy helping care for the forests and spending time in the garden. The members of the Urbem team are incredibly kind and welcoming.”

“Sou investigadora há mais de cinquenta anos em Química. Para mim aderir como voluntária à Urbem foi uma lufada de ar fresco na minha vida. O convívio social, o companheirismo, a partilha de materiais, vivências e tarefas são neste grupo espontâneas, organizadas e todos trabalhamos para um fim comum, a preservação da biodiversidade no nosso planeta. Tomei a meu cargo este ano a organização de um pequeno banco de sementes de espécies autóctones que foram distribuídas pelas miniflorestas da Urbem. Participo ainda na minifloresta do Instituto Superior Técnico e trarei alguma Química interessante para o projeto no futuro.”

“I’ve been a climate activist for many years and was beginning to become discouraged watching us pass several climate and biodiversity thresholds. But after volunteering with Urbem, I am renewed by the promise that the local actions by communities can make a profound difference to our environment and society. There is a lot we can not change - so we can control what we can - one tree and one neighborhood at a time. I’ve learned so much from the folks at Urbem and have had a fun time along the way!”



## National



### **Miniflorestas QUERCUS**



### **Jardins de Polinizadores**

## International



### **CONEXUS - Pilot 1 – Renatura**

CO-producing Nature-based solutions and restored Ecosystems: transdisciplinary neXus for Urban Sustainability



### **LIFE LUNGS**

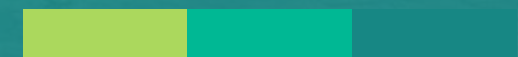
Towards a more resilient Lisbon Urban Green Infrastructure as an adaptation to climate change



### **NATURESCAPES**

Nature-based solutions for climate resilient, nature positive and socially just communities in diverse landscapes

# Partner Projects



# Sustainable Development Goals

The ODSlocal Platform aims to engage municipalities and key organisations in achieving the United Nations' Sustainable Development Goals (SDGs) at the local level. Created through a partnership with CNADS, OBSERVA, MARE, and 2adapt, and supported by the 'La Caixa' Foundation, it highlights successful projects and their impact on the SDGs using UN indicators.

Urbem's work, particularly with the Portuguese Mini-Forest Network, was recognised and included on this platform. Urbem contributes to 14 of the 17 SDGs, (Figs 1 and 2) with significant impact on SDGs 3 (Good health), 11 (Sustainable cities), 13 (Climate action), and 15 (Life on land), along with SDGs 4 (Quality education) and 17 (Partnerships).

Figure 1

FastForest 1



Figure 2

FastForest 2



Figure 3

Mini-Forest APA



Figure 4

Mini-Forest Areiro

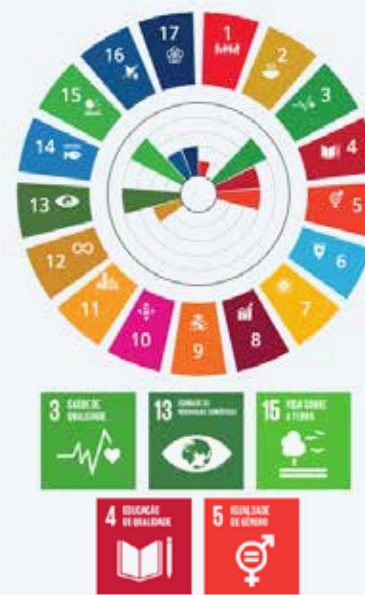


Figure 4

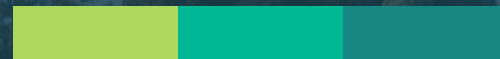
Mini-Forest Alvalade





# MONITORING

Since our forest sites have expanded, we are in the process of creating a biological monitoring team who would monitor most of them on a bi-annual basis for at least 3 years, across a common scientific framework. This will not only ensure their health while allowing us to correct for any issues we may come across, but also provide a valuable database of Miyawaki forest data across Lisbon that would be useful for further research. These updates will be provided in future reports. What follows here is only a qualitative assessment of our largest forest Fast Forest 2 (FF2).



# Fast Forest 2 (FF2): a living lab for biodiversity conservation

## 2025 update

In line with Urbem's commitment to developing sustainable and resilient urban spaces, Fast Forest 2 (FF2), located in Vale do Casal Vistoso, continues in 2025 to operate as a living laboratory for nature-based solutions (NBS). Since its implementation, FF1 has evolved from a pilot intervention into a consolidated demonstration site, supporting applied research, long-term monitoring and adaptive management approaches in an urban context.

- Throughout its development, FF2 has progressively strengthened habitat connectivity and structural diversity, contributing to the establishment of functional refuges for native flora and fauna. Monitoring data collected in 2024–2025 indicate an increase in habitat use by key bioindicator species, confirming the site's role in supporting sensitive taxa and improving overall ecosystem quality within the urban matrix.
- Unlike conventional urban green areas, FF2 is intentionally designed to prioritise ecological processes over ornamental functions. By integrating scientific monitoring, adaptive management and stakeholder engagement, FF1 exemplifies how urban forests can act simultaneously as biodiversity refuges, research platforms and climate-resilient infrastructure.

## Key conservation strategies at FF2 – 2025 progress update



### Measuring success through sensitive species

Since 2024, FF2 has progressed from initial species colonisation to demonstrating regular use and successful reproduction of amphibians and invertebrates. Repeated detections across seasons and the presence of larval and juvenile stages indicate that the site is functioning as a viable habitat rather than a temporary refuge. These trends reinforce the role of sensitive taxa as reliable indicators of improving ecosystem quality.



### Diverse habitat structures supporting ecological processes

The structural diversity introduced at FF2 – including seasonal ponds, native meadows and microhabitats such as deadwood and insect shelters – has matured and now supports complementary ecological functions. Increased habitat complexity has enhanced moisture retention, shelter availability and resource continuity, benefiting species with different ecological requirements and life cycles.



### Long-term ecological monitoring informing adaptive management

Monitoring data collected since 2024 have enabled a transition from observation to adaptive management, with adjustments made to vegetation density, hydroperiod management and disturbance regimes. These refinements have contributed to improved habitat stability and biodiversity responses, demonstrating FF2's value as a testing ground for scalable urban nature-based solutions.

# Nature-Based Solutions (NBS)



## Pond nr. 1 (P1) – 2025 progress update

Pond nr. 1 (P1), designed to replicate **Mediterranean temporary ponds**, continues in 2025 to function as a key **Nature-Based Solution (NBS)** within the URBEM project, integrating **urban water retention** with **biodiversity conservation**. Since its construction in 2023, the pond has transitioned from an establishment phase to a functioning seasonal wetland, responding dynamically to rainfall patterns and dry periods.

Following the introduction of native aquatic plants sourced from nearby similar temporary ponds in 2024, vegetation has become well established and structurally diverse. This plant community now supports multiple ecological niches and contributes to improved water quality, sediment stabilisation and habitat complexity, reinforcing the pond's ecological coherence with regional Mediterranean wetland systems.

Monitoring and field observations in 2024–2025 indicate **regular colonisation and seasonal reproduction** of aquatic invertebrates

and amphibians species. The presence of eggs and larval stages and repeated use across hydrological cycles suggest that P1 is functioning as a viable breeding and foraging habitat, enhancing ecological connectivity within the surrounding urban landscape.

Native vegetation and seasonal drying cycles have effectively limited conditions favourable to mosquito proliferation, while supporting **natural mosquito predators** such as dragonflies and amphibians. This confirms the pond's capacity to balance public health considerations with biodiversity goals.

As both a stormwater retention feature and a biodiversity hotspot, P1 provides a practical model for **urban pond design aligned with Mediterranean climates**. Ongoing ecological monitoring will continue to inform adaptive management, supporting the replication of similar NBS interventions for more resilient and biodiversity-positive cities.



*(Top) P1 pond at the beginning of the flooding period; (Right) eggs of the **Portuguese parsley frog** (*Pelodytes atlanticus*), evidencing successful reproductive activity.*





## Regeneration plots – letting nature restore itself

### 2025 progress update

#### Native meadow – a low-maintenance biodiversity hub

Within Urbem's biodiversity framework, a **native meadow** is defined as a plant community composed primarily of **locally adapted grasses, flowering herbs and forbs** that remains stable over time with **minimal and targeted maintenance**. Ecologically, meadows represent an early successional stage of natural vegetation, offering high biodiversity value while relying largely on natural ecological processes.

The regeneration meadow was established to replace the site's former low-diversity vegetation, previously dominated by ruderal plant communities, with a more diverse and structurally balanced plant community. Since its establishment, vegetation surveys indicate a gradual increase in species richness and a more even distribution of functional plant groups, contributing to improved habitat quality and ecological resilience.

A diverse assemblage of native flowering species now provides **continuous floral resources** throughout the growing season, supporting pollinators and other beneficial insects. Seeds were **hand-collected from reference meadows within a 30 km radius** and selectively broadcast on site, ensuring adaptation to local soil and climate conditions while reducing risks associated with commercial seed mixes.

Maintenance interventions are **intentionally limited** and focus exclusively on **controlling invasive species**, namely *Arundo donax* and *Oxalis pes-caprae*, and on **cutting the vegetation at the end of summer** to prevent woody encroachment and promote seed dispersal. No irrigation, fertilisation or routine mowing is applied.

#### Regeneration plots as living laboratories

Urbem's regeneration plots are designated areas where **natural regeneration is prioritised**, allowing grasses, shrubs and trees to establish spontaneously from local seed banks. By minimising planting and disturbance, these plots preserve local genetic diversity and frequently result in more resilient and self-sustaining ecosystems than conventional reforestation approaches.

These areas function as **benchmark sites**, enabling comparison between passive regeneration and active planting strategies. Monitoring species composition and growth under local **edaphoclimatic conditions** provides valuable insights into which ecotypes are best adapted to the environment, informing future restoration and conservation actions.

Long-term observation of regeneration plots supports **evidence-based decision-making**, reinforcing the role of natural processes in urban biodiversity recovery and contributing to more effective, climate-resilient green infrastructure.



# iNaturalist Citizen Science Project



Citizen science continues to play a central role in monitoring and understanding **urban biodiversity**, enabling active community participation in ecological data collection while fostering environmental awareness and stewardship.

Within the URBEM project, the **iNaturalist platform** is used to document biodiversity at **Vale do Casal Vistoso**, supporting an open and collaborative approach to ecological monitoring. The initiative has grown steadily since its launch, reflecting both increasing community engagement and the progressive ecological maturation of the site.

As of 2025, the project has recorded **247 identifications covering 150 species**, contributed by **23 observers**. Plant species represent the largest group, with **77 species (51.33%)**, followed by **insects with 57 species (38%)**, and **molluscs with 7 species (4.67%)**, highlighting the diversity of taxa supported by the site and the value of detailed taxonomic documentation.

These citizen-generated records provide valuable data for **tracking the impacts of nature-based interventions**, monitoring ecological recovery and analysing biodiversity trends over time. By complementing formal ecological surveys, the iNaturalist project strengthens evidence-based conservation in urban green spaces while reinforcing the connection between people and nature.

In addition, Urbem's interventions at FF2 plot are now registered on **Restor.Eco**, an open global platform for ecological restoration projects. This inclusion increases the **visibility, transparency and credibility** of Urbem's work, enabling the sharing of methodologies, monitoring results and lessons learned with a wider international community of practitioners and researchers. By contributing data to Restor.eco, the project supports **comparability, long-term knowledge exchange and alignment with global restoration standards**, while facilitating future collaboration, replication and impact assessment.

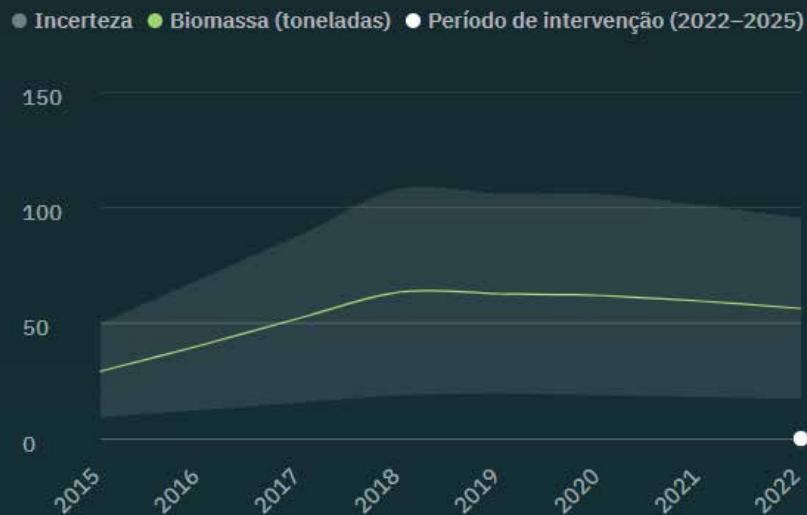
### Carbono atual e potencial



Compara a quantidade de carbono armazenada atualmente nas plantas (acima e abaixo do solo) e no solo com a quantidade que ele poderia armazenar se a área atingisse sua capacidade máxima.

Resolução espacial: Média

### Biomassa acima do solo



Mostra a quantidade total de material vegetal lenhoso seco, por exemplo, troncos e galhos (biomassa), acima do solo ao longo do tempo. Esta é uma estimativa calculada, a área de incerteza mostra a você o intervalo onde o valor verdadeiro provavelmente cai.

Resolução espacial: Mais alta

**1960**  
Plants

**3600**  
Admin Work Hours

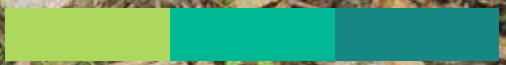
**1600**  
Mulch (kg)

**926**  
Volunteers

**4500+**  
Visitors (pax) -  
activities & events



# Impact Indicators



# Impact of financial support

All the work in this report was accomplished with just **€8,906.28** and thousands of volunteer hours, both in the field and behind the scenes.

**Help us achieve greater impact - donate now!**

**[urbem.co/donate](https://urbem.co/donate)**

**€8,906<sup>.28</sup>**

Total Donations  
Received in 2025

# What's next - 2026 goals

- 🌿 Finetune our commercial strategy and market offering to increase our fundraising
- 🌿 Finalise standard biological monitoring process across our forests with a common scientific framework
- 🌿 Consolidate our social media setup and strategy with increased posts and engagement
- 🌿 Sign up 3 more freguesias in the Lisbon district
- 🌿 Conduct 3 workshops and train people to have a larger scientific team to help us create future forests
- 🌿 Reinforce our corporate activities and have at least 5 events
- 🌿 Progress towards becoming a public utility including having formalised accounting processes

**By strengthening education and outreach, Urbem aims to inspire collective action for urban biodiversity conservation.**





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