Innovating Nature, Building Futures

TIMBRA.
TECH Innovating Nature
Building Futures

Elevating Wood
to New Standards

TIMBRA Tech is redefining wood sustainability, bridging nature with technology.

TIMBRA Tech was born from **GWP Wood by Nature®'s** expertise combining technology and sustainability in the transformation of tropical wood. A new generation of wood, more durable, more stable and a 100% natural process (only heat and steam), with no chemicals involved.

TIMBRA Tech introduces new wood species that meet the demands of contemporary architecture, blending performance, aesthetics and environmental responsibility.

TIMBRA Tech redefines standards and delivers high-quality solutions for architects, designers and builders.

Thermal Treatment

Where Wood meets **Smart Technology**

The union between technology and nature creates a balance that enhances the performance, the beauty and the durability of wood.

TIMBRA Tech is taking **wood** to the next level **in modern society**

1. Thermal Modification

Thermal modification alters wood at a cellular level. It's an innovative process that enhances the properties of wood, improving its durability, dimensional stability and mechanical performance, without the use of chemical products.

Exposed to controlled high temperatures 160°C (320 °F) and 220°C (428 °F) in a low-oxygen environment, the wood undergoes structural transformation, becoming more resistant to moisture, fungi and insects. Additionally, its natural color be-comes darker and more homogeneous, enhancing its natural beauty.

2. A Sustainable Innovation

Thermal modification revolutionizes wood treatment by enhancing its performance and expanding its usage in modern architecture and design. Combining durability, aesthetics and environmental responsibility, it marks a key advancement in sustainable materials, elevating wood to new levels of innovation and elegance.

Our process allows us to turn lesser-known wood species into viable, sustainable alternatives. By doing so, we aim to contribute to reducing overharvesting of more popular timber while promoting biodiversity and responsible forestry.

↘ Essence of Nature, Protecting the Future

The fusion of technological innovation and natural elements enhances the beauty and performance of wood while promoting sustainability and environmental responsibility.

TIMBRA Tech - Benefits of Thermally Modified Wood

Durability
Resistant to moisture, fungi and insects.

Natural Aesthetics
Richer color and elegant finish.

Stability
Less expansion and contraction, ideal for any climate.

Sustainability
100% natural process.
No chemicals, just heat and steam.

A sustainable technology that enhances wood's durability and stability without the use of harmful chemicals, ideal for both indoor and outdoor applications.

Process
TIMBRA Tech

1. Initial Heating

Removes moisture and prepares the raw material.

- The wood is placed in a specially built system and gradually heated.
- Initial temperature ranges between 100°C and 160°C (212°F and 320°F).
- Moisture content is reduced down to approximately 2%.

2. Modification Process

Stabilizes and modifies the content and structure of the wood cells.

- A high temperature is applied around 220°C (428 °F).
- Low-oxygen environment.

3. Cooling and Rehydration

Prevents warpage and enhances durability.

- Temperature is gradually reduced.
- Controlled rehydration is performed with steam.
- Final moisture content is adjusted to between 5% and 9%, balancing the wood's stability.

4. Process Results

- Significantly higher resistance to decaying biological agents, such as to fungi and insects.
- Increased durability and dimensional stability with highly reduced moisture absorption capacity.
- A browner tone, enhancing the final appearance of the wood.

Enhancing **Fire Resistance** and Sustainability

BURNBLOCK®

TIMBRA Tech, in partnership with BURNBLOCK®, offers a 100% natural, non-toxic fire retardant solution that ensures high safety standards without compromising aesthetics, sustainability or product performance.

Applied through a high-pressure autoclave impregnation, the treatment penetrates completely inside the timber, delivering long-lasting fire resistance across a wide range of wood species.

Key Benefits

Eco-Friendly
Prevents ignition and flame spread.

Fire Resistance
100% natural, biodegradable and non-toxic.

Smart Reaction
Chars and releases water under heat.

Aesthetic Integrity
Preserves wood's natural look and finish.

Tested, Certified and Trusted

Tested and trusted worldwide, BURNBLOCK® complies with international fire safety standards and enables **TIMBRA Tech** wood to achieve Bs1,d0 classification. No special preparation of the wood is required for the application.

This precise process ensures maximum fire resistance maintaining product integrity, making **TIMBRA Tech** the reliable choice for high-performance, sustainable fire resistance in wood materials.

Protect your projects with
innovative, safe and sustainable solutions.

Collection

- Basic
- Advance
- Performance
- Excellence

Discover our distinct product Selections tailored to suit every architectural and technical requirement, each level offering enhanced quality and innovation.

Four Lines.
One Technology.
Infinite Possibilities

Essential Durability and Quality

- DECKING
- CLADDING

Elevated Durability, Iconic Charm

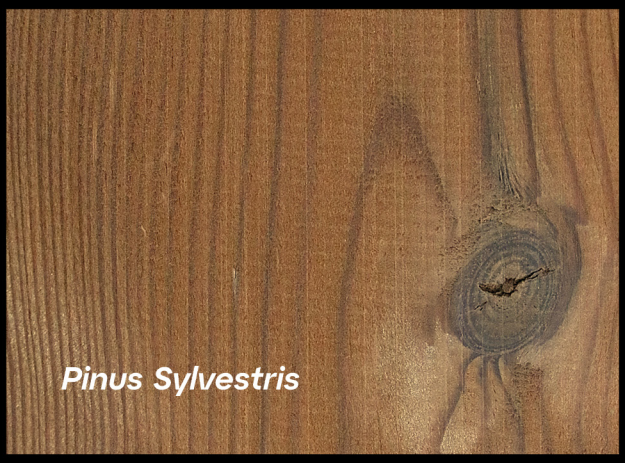
- CLADDING
- WINDOWS
- STREET FURNITURE

Perfected Durability, Amplified Performance

- DECKING
- CLADDING
- WINDOWS
- STREET FURNITURE

Perfection, Elevated to Excellence

- DECKING
- CLADDING
- FLOORING
- WINDOWS
- STREET FURNITURE



Basic

- Improved durability in outdoor conditions
- Resistance to weathering exposure
- Stable and evolving aesthetic over time

Advance

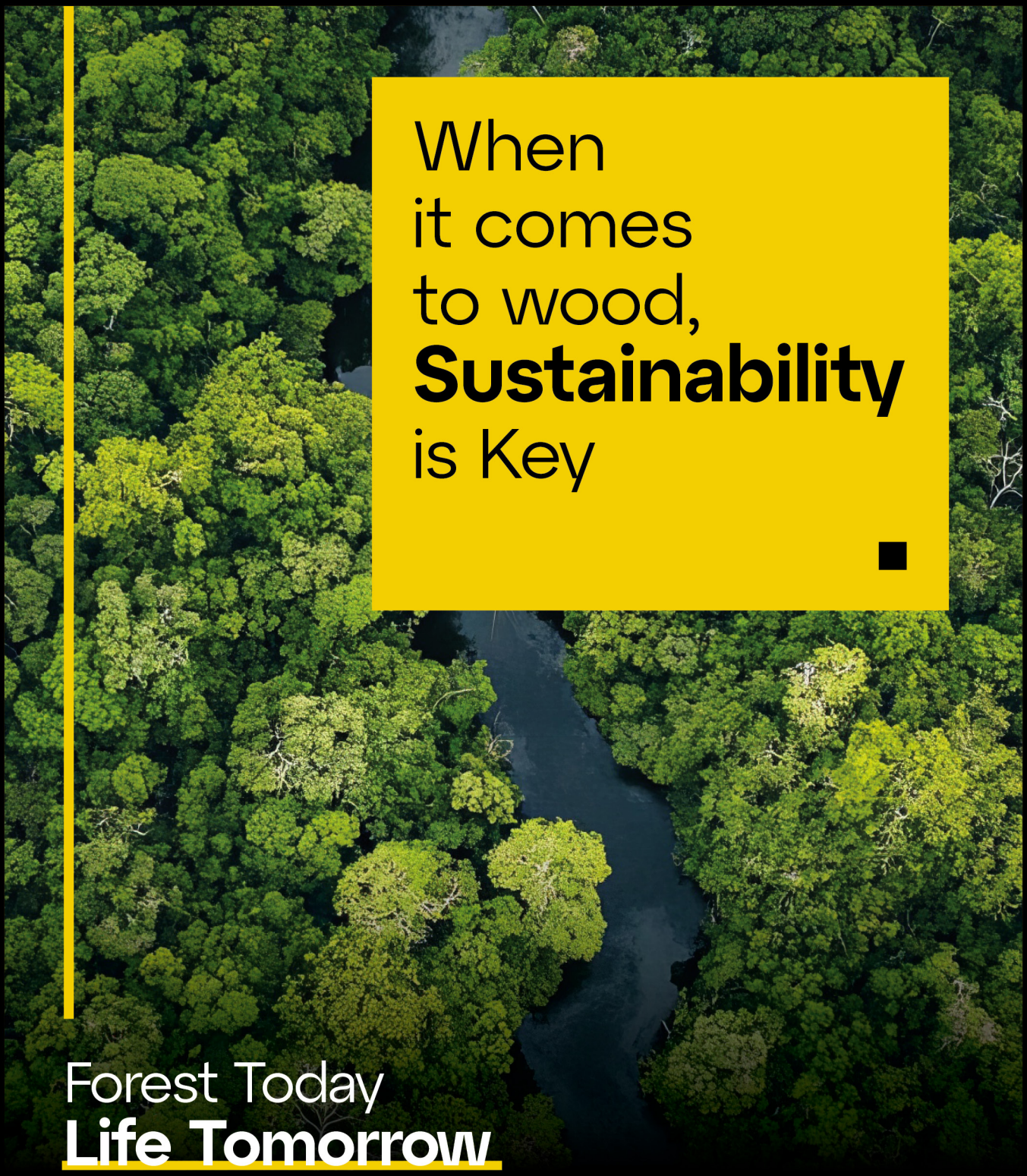
- Visual appearance with irregular grain
- Pleasant tactile texture
- Reliable mechanical performance

Performance

- Improved mechanical performance
- Reduced moisture absorption
- Stability and longevity in outdoor use

Excellence

- Robust structure with high wear resistance
- Suitable for highly demanding environments
- Combines robustness with design flexibility
- Ensures long-term reliability



When it comes to wood, **Sustainability** is Key

Forest Today
Life Tomorrow

With a certified harvesting method that puts nature and people first, TIMBRA Tech is one of the world's most sustainable building materials.

FSC www.fsc.org
The mark of responsible forestry
FSC® C121009

PEFC
GWP INTERNATIONAL WOOD PRODUCTS, LDA has a PEFC certified chain of custody

Ask for our certified products

All **TIMBRA Tech** products are carefully and 100% legally sourced, certified and sustainable by either the **FSC®** - Forest Stewardship Council, **PEFC** - Program for the Endorsement of Forest Certification and **The Legal Wood Program** - our internal Due Care Chain of Custody environmental compliance program. Our Program **The Legal Wood** ensures timber legality through a rigorous auditing process from the forest floor to your door.

Thermal modification is a sustainable technology that significantly enhances wood's properties without compromising the environmental sustainability of the product. This advanced process improves resistance and dimensional stability, making wood an ideal choice for applications requiring high durability.

Legal. wood community & sustainability

Today

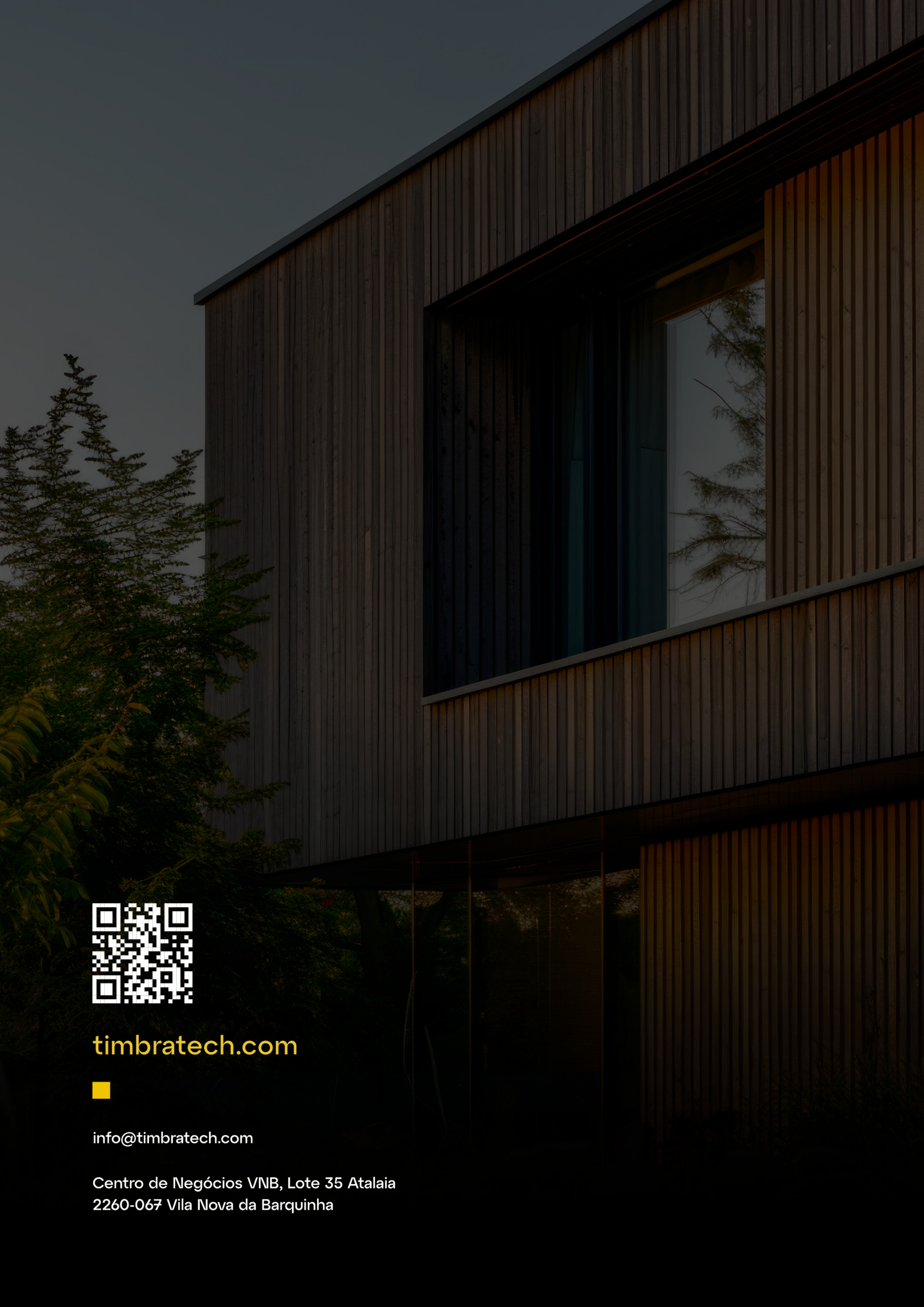
Sustainable Forest Management with Expertise and Precision.

Tomorrow

Technology for a Sustainable Future.

2028

Achieve Carbon Neutrality.



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