

15°C Embrace the Forest

WILDLAND FIRE TECHNOLOGIES & COMMUNITY-LED ACTIONS



At the Fireline: Where Communities and AI Unite.

Osmar Bambini, Co-founder & CIO

THE GLOBAL COST OF WILDFIRES

A Fire Too Fast for Humans Alone

(Source: World Economic Forum Report, 2024)

390 million Hectares burned globally in 2023–24

The Amazon Rainforest saw a **66%** increase in fire-related destruction within a year.

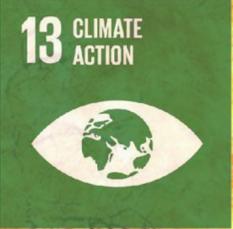
2.4 billion Metric tons of carbon released in 2024

Emissions rose by **16%** above the historical average.
Canada alone accounted for **24%** of global wildfire carbon emissions in 2024

\$893 billion Annual wildfire-related damages in the United States

In Los Angeles, projected losses from the 2025 fire range between **\$250 and \$ 275 billion**. In 2024, wildfires caused **\$4–5 billion** in agricultural losses (wheat and barley) in Australia.

Community leaders in front-line communities have not built capacity or tools to respond.



WHY FIRE HAPPENS. THE RIDDEN ROOTS

SOURCE: OUTFORIA 2023

Human activity (~87%): campfires, burning trash, sparks from equipment and vehicles.

Arson: intentional fire-setting for vandalism, revenge, or land clearing

Lightning and natural causes (~11%): dry lightning storms, volcanic activity, underground coal fires

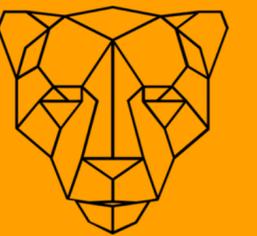
Weather & terrain: high temperatures, wind, drought, and steep slopes accelerate the spread

Poor land use: unmanaged vegetation, deforestation, urban sprawl into wildlands, lack of firebreaks

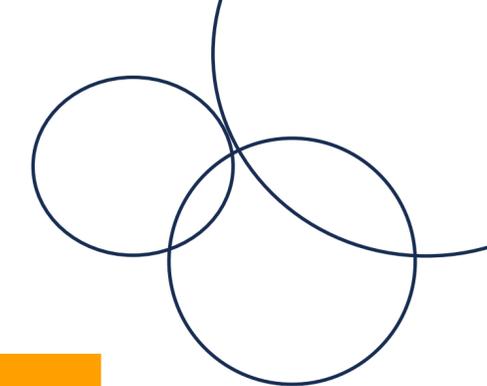
15°C

PANTERA

A complete solution
for wildland fire
management

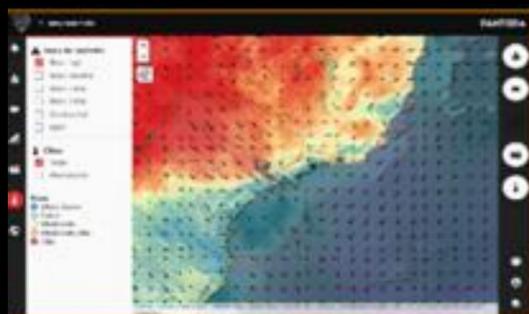


PANTERA
FIRE MANAGEMENT PLATFORM AS A SERVICE

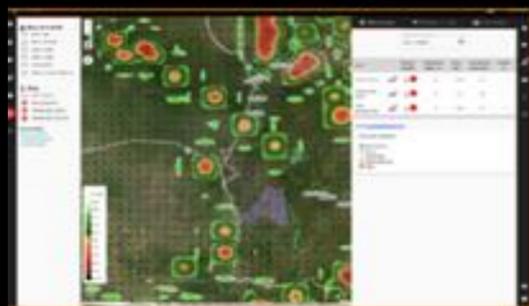


PREVENTION

Risk Analysis



Weather Data



Identify Risk Patterns

DETECTION

Rapid Detection



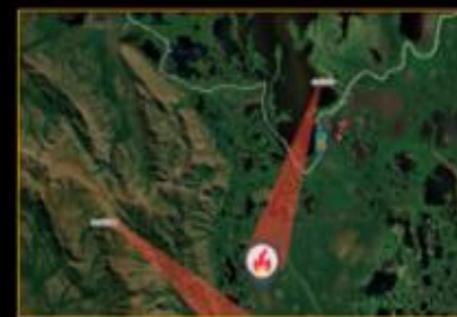
Satellite Detection



Intensive Monitoring

RESPONSE

Resources Management



Propagation Model



Support Decision

IMPACT

Operational Dashboard



CO2 Emissions



Evaluate Results

1.5°C

DETECTION

Intensive Monitoring



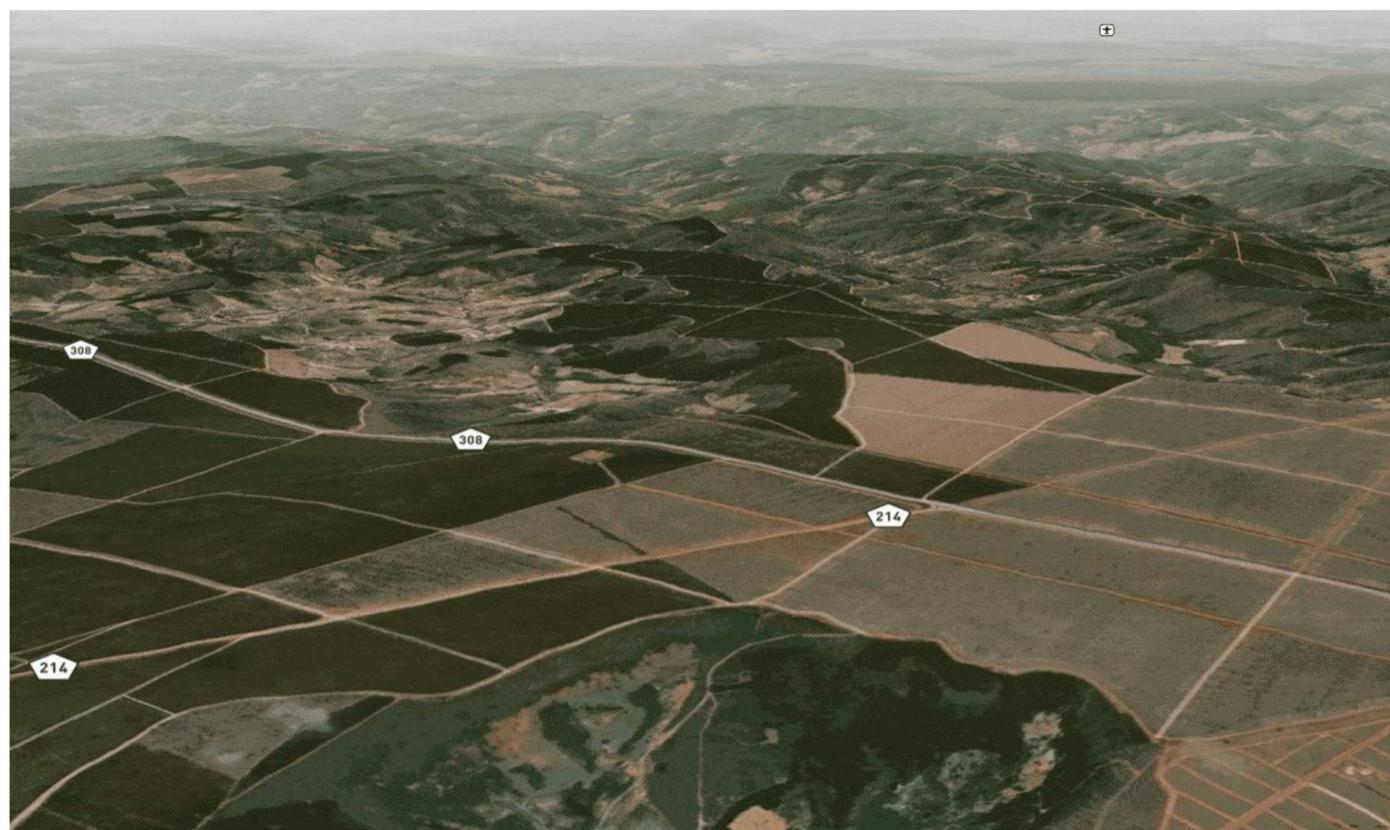
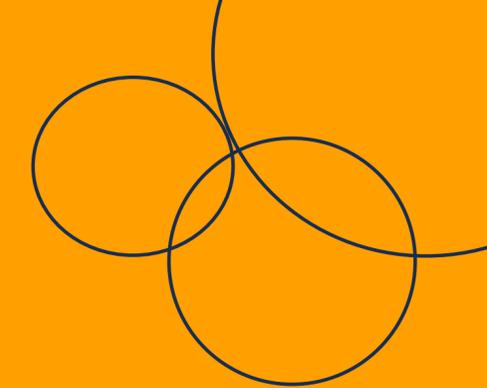
Detects In Seconds - 20 Km[>] 125.000 hectares



PANTERA
FIRE MANAGEMENT PLATFORM AS A SERVICE

1.5°C

RESPONSE



FIRE PROPAGATION MODEL

Simulates Fire Propagation in Time and Space

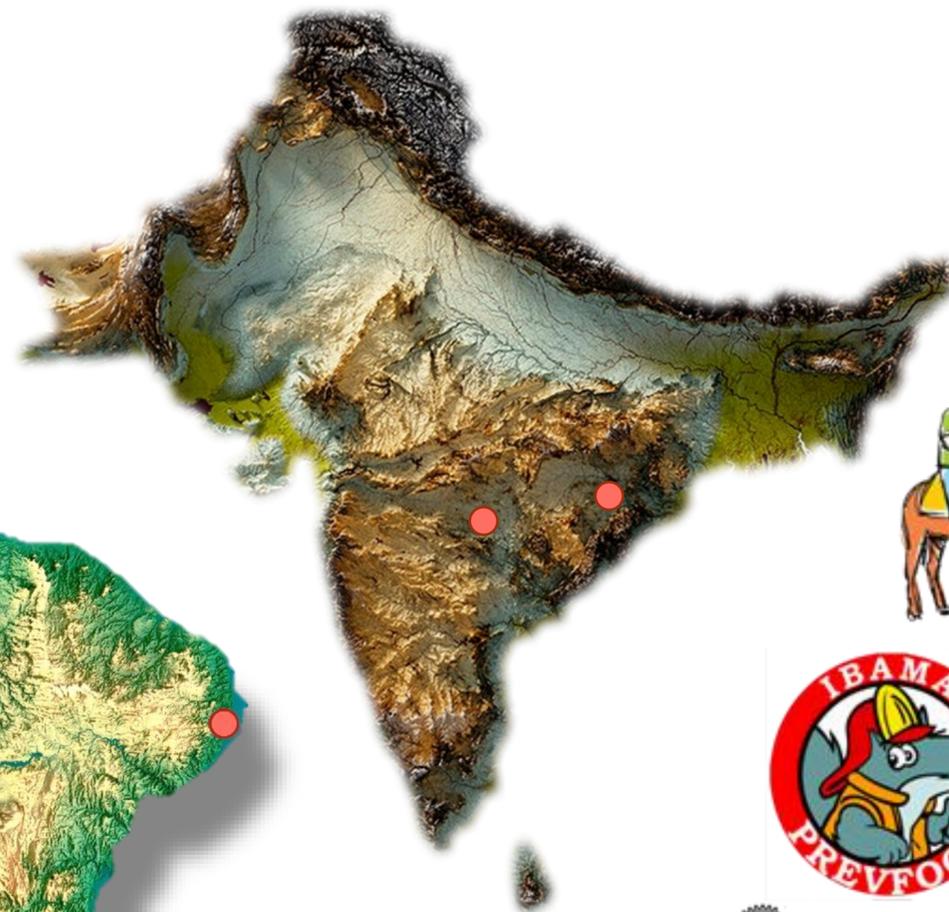
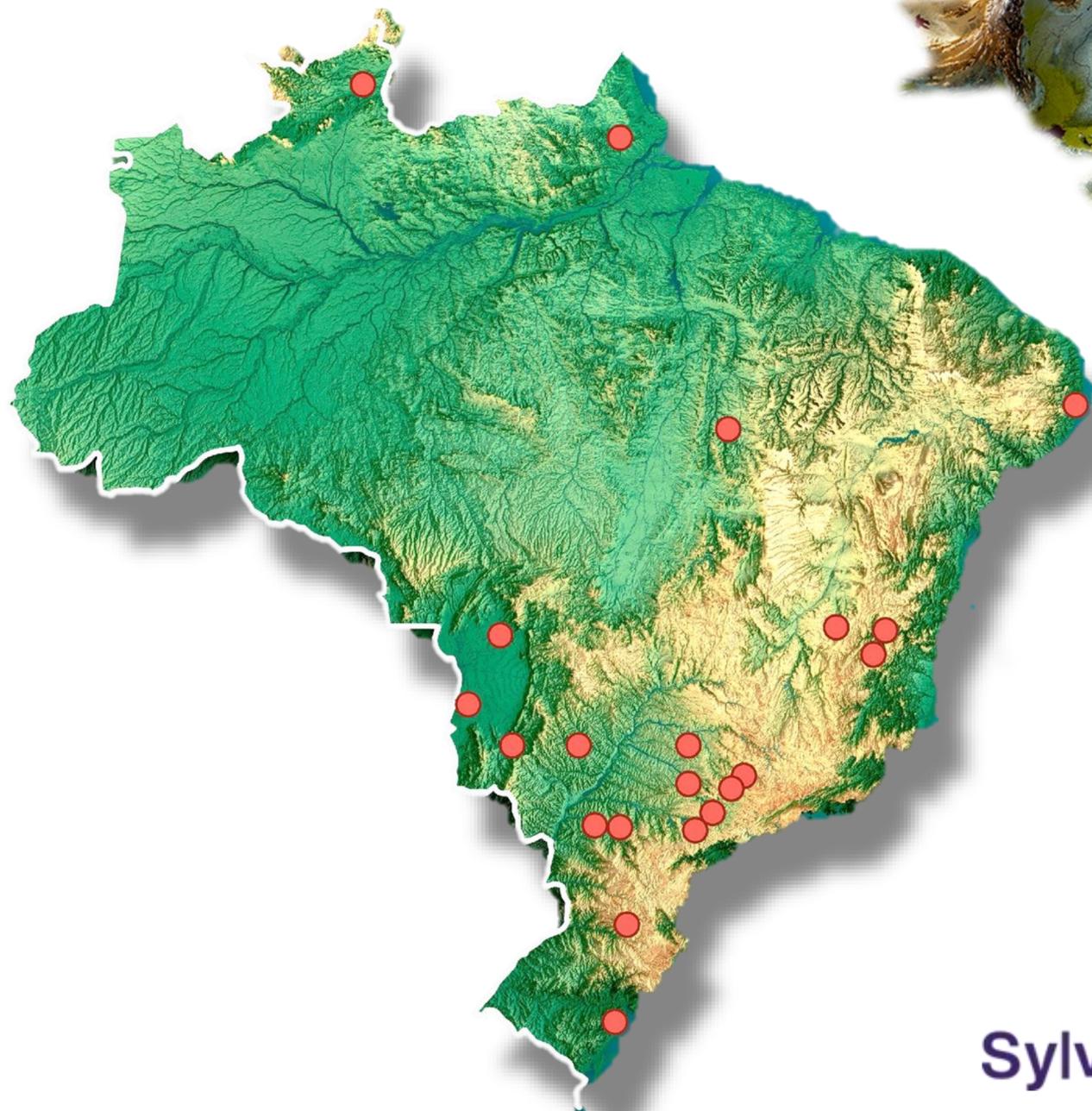
Improves Dispatch Planning and Efficiency



PANTERA
FIRE MANAGEMENT PLATFORM AS A SERVICE

1.5°C

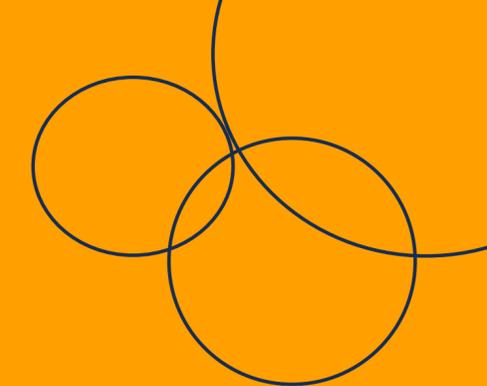
KEY SECTORS



MOMBAK



bpbioenergy



40 clients with long-term contracts

17,5M hectares of total monitored in Brazil's 5 Brazilian Biomes.

357K hectares in India's Tiger Reserves.

5 regions of Brazil

150+ towers installed

OUR TEAM

52 PEOPLE

CEO

Tiago Menezes



- 26+ years in consumer goods.
- Former Country Head at CBN, Bolivia.
- Investor in sustainable businesses.
- Focused on scaling global impact through tech, business, and sustainability

Chief Technology Officer

Antonio Leblanc



- Mechanical Engineer from UFRJ and École Centrale de Lyon
- Experience as developer at Amazon and Radix

Chief Legal Officer

Maira Domene



- Law degree from Paulista University
- Experience in corporate law and specialized consulting

Chief Operating Officer

Diego Debruyn



- Mechanical Engineer from École Polytechnique de Lausanne
- Master's degree in Aerial Robotics from Imperial College London

Chief Commercial Officer

Eimi Arikawa



- Forest Engineer from UFSCar and Master in Forest Resources from USP – ESALQ
- Experience in project planning, budgeting and negotiation

Chief Innovability Officer

Osmar Bambini



- MBA Sustainable Development PUC-RS
- Experience in Global Impact Business,
- EY Impact Entrepreneur of the year 2023
- Uplink Top Innovator

Board President

Rogério Cavalcante



- Law degree
- 30 years of experience as an entrepreneur
- Founder of three other businesses in different sectors

Board Director Member

Paulo Ciampolini



- Representative of Baraúna Investimentos

Board Director Member

Fabio Iunis de Paula



- Representative of Indicator Capital

Board Director Member

Alexandre Alvim

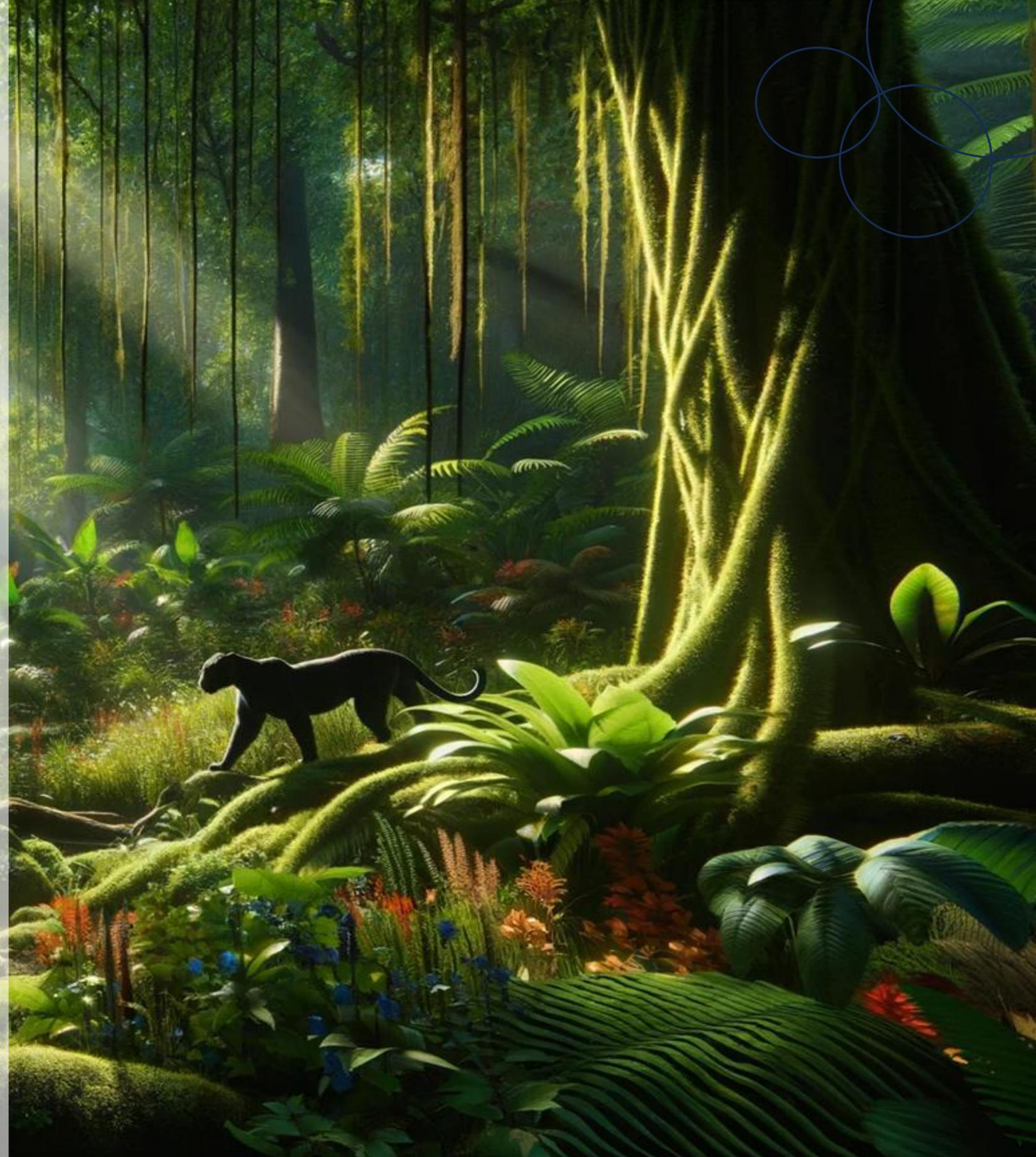


- Angel Investor



Embrace the Forest

Protection of Communities and
Ecosystems from Catastrophic Fires.



15°

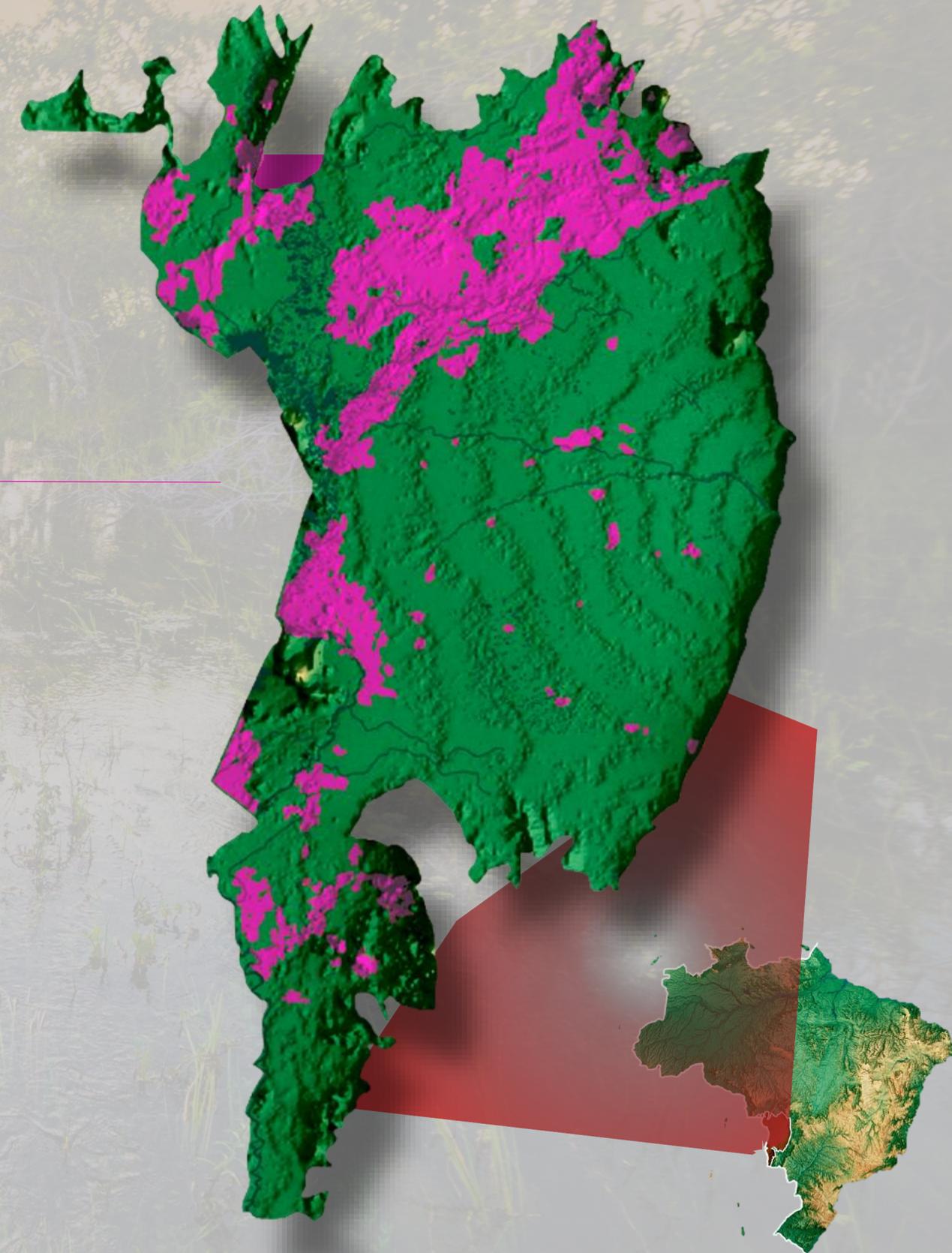
Mega Fire Pantanal 2020

TOTAL AREA
15,6 MI hectares

BURNED AREA
3,9 MI hectares

BIOME IMPACT
26% of Pantanal Affected

AMOLAR SLOPE REGION
97% impacted



EMBRACE THE FOREST: CASE EMBRACE PANTANAL

Key highlights of the project include:

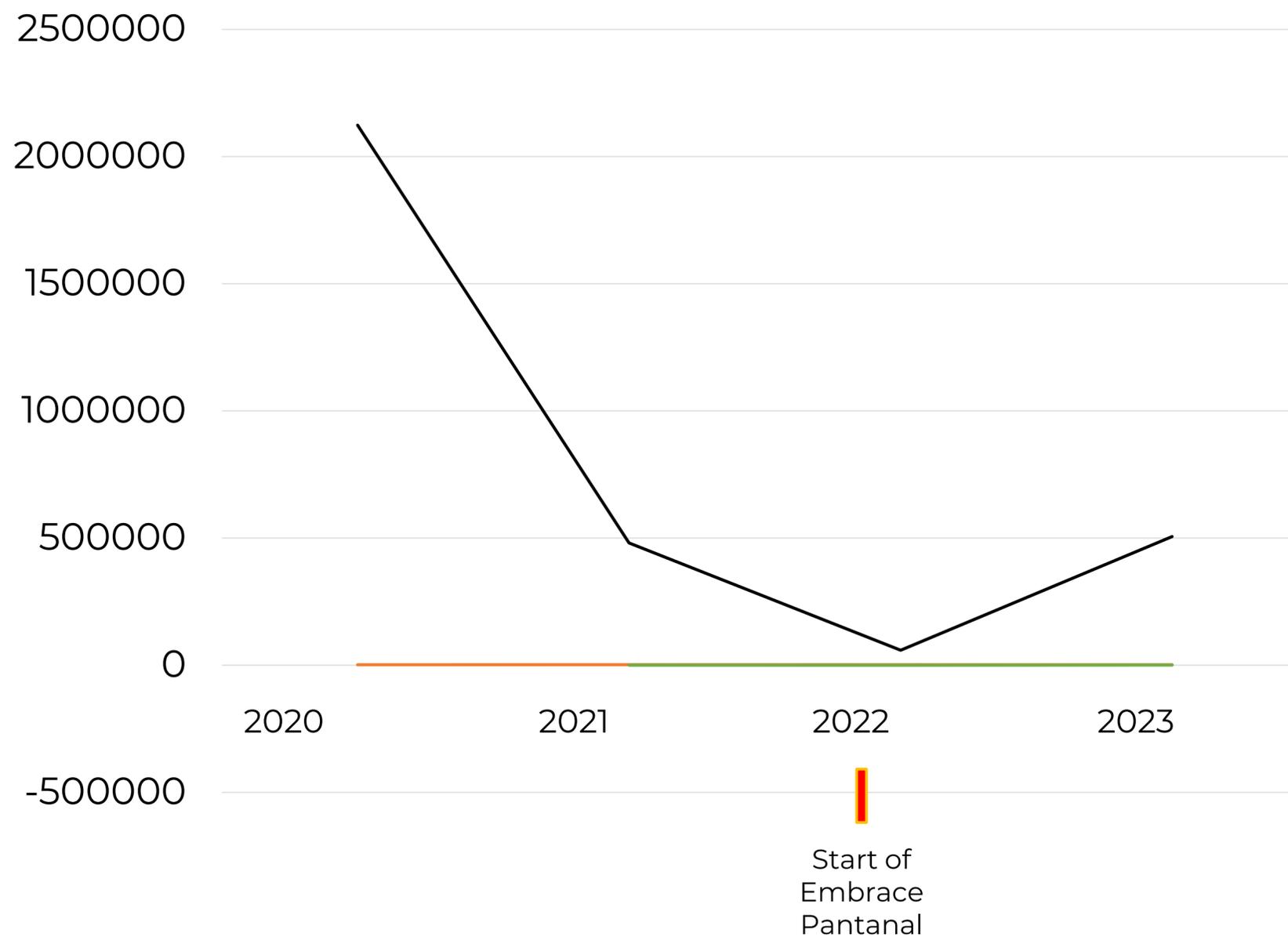
- 11 monitoring towers
- 3 institutions
- 2.5 million hectares
- +5 million tons of CO₂ emissions avoided
- 4 additional towers in 2025
- Expansion in Pantanal with new sponsors
- New Territories & Indigenous communities
- **1st Forestry Criteria Green Bond certified by CBI in BR**

ALTO PANTANAL BRIGADE



Embrace Pantanal

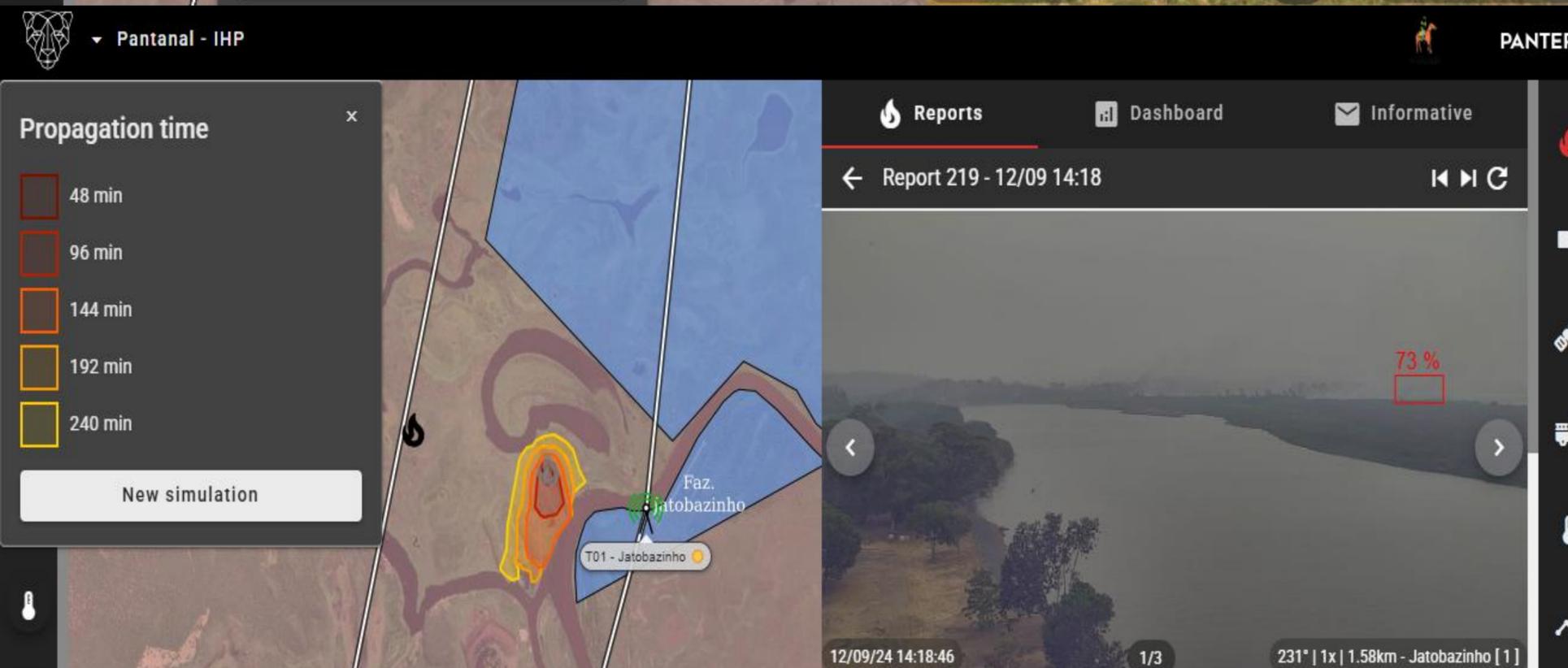
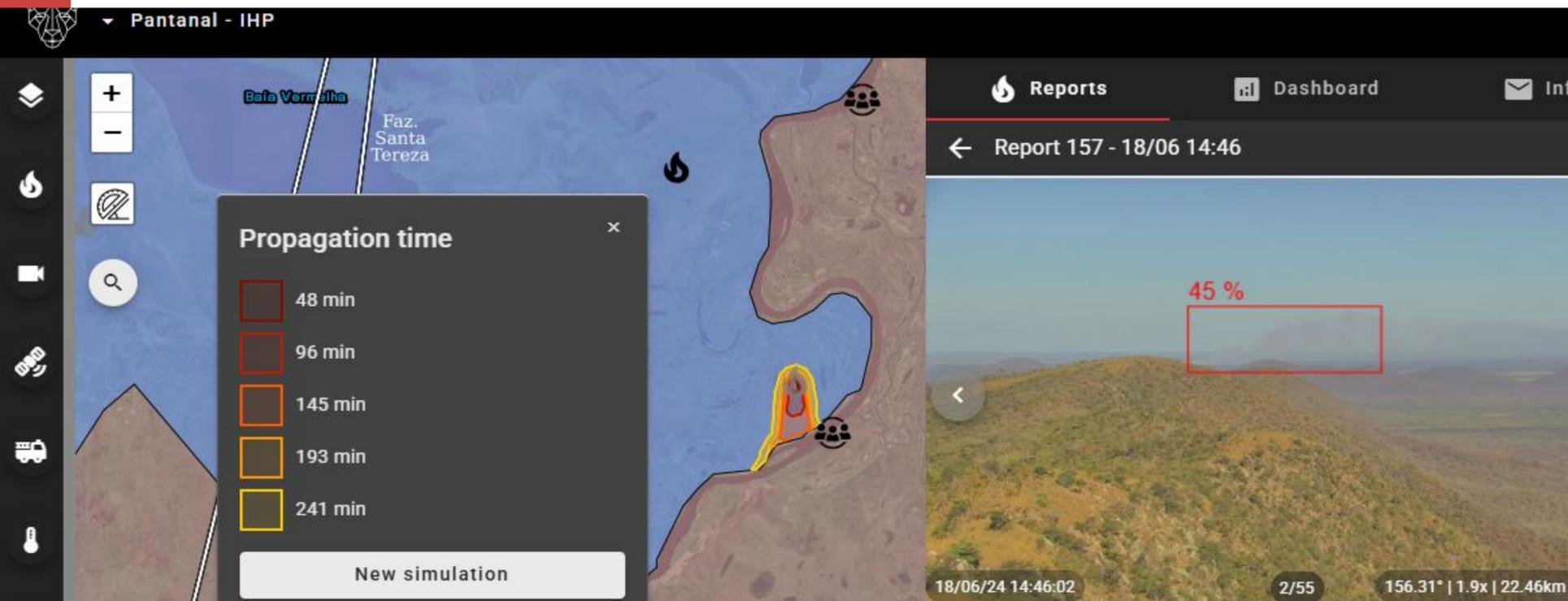
Reduction of Burned Area from 2020 to 2023, 20 Km radius from cameras



75% reduction in burned area 4 x less than 2020.

15°C

Instant Detection + Propagation = Evacuation + Firelines



AI-anticipated detection and supported evacuation planning, as well as coordinated Fireline responses.

15°C

EMBRACE THE FOREST EXPANSION



CIR RORAIMA BRIGADE



DAUGHTERS OF FIRE BRIGADE



ALTER BRIGADE



KADIWEU BRIGADE



YORENKA TERRITORY

Geographic Coverage 2025 (in expansion):
 5 states with new active fronts: SP, TO, PA, GO, RR
 7+ projects in negotiation or early implementation.

Growth:
 From 3 to 10 active fronts (↑ 230%)
 Expansion of Fire Management Centers into new territories.

Expected Financial Impact:
 2MI USD to 3MI USD in potential contracts and agreements over the next 18 months.

15°C

The Hybrid Model: AI Algorithms + Ancestry



AI without culture is useless.

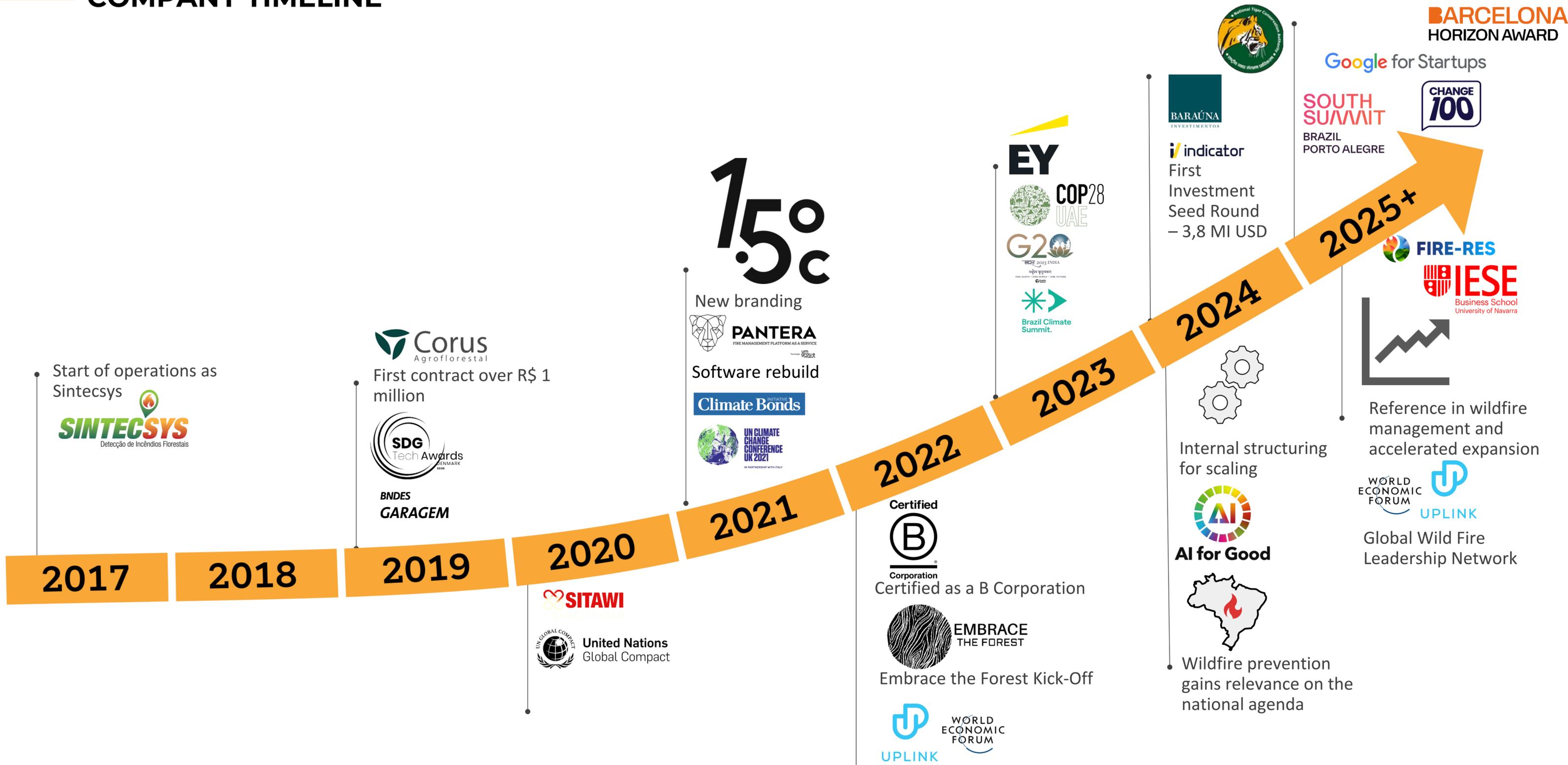
Traditional fire breaks, patrol routes, and even intuition guided the tech.

In the Pantanal, fire fronts were stopped by combining predictive models with traditional field practices.

Meaningful co-creation appears in high-tech, low-infrastructure contexts.

15°C

COMPANY TIMELINE



1.5°
C

JOIN THE CIRCLE



We are seeking technological partners, policymakers, funders, and grassroots networks. You can help scale a successful model that has emerged from the front lines.

What role will you take on? In the lab, in the forest, financing, or on the frontlines?

1.5°C

“We are not just preventing fires. We are protecting the archives of life, memory, and possibility. AI can be the flame that lights that protection, not the one that burns it down!”



Thank you!

AWARDS & CERTIFICATIONS



THIRD PACE



Google for Startups



BARCELONA HORIZON AWARD



Osmar Bambini, Cofounder & CIO
osmar.bambini@umgrauemeio.com
www.umgrauemeio.com
5511 976885877

