




BIOAMA IA

Circular Biotechnology + Applied Intelligence

 Transforming environmental challenges into intelligent circular systems

33

STARTUPS SELECTED

APTEnisa


SELECTED BY

2026

YEAR



Modesto Ricardo Contreras González
Founder of BIOAMA

 [Watch Demo](#)

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Environmental Crisis

Wastewater & Organic Waste

Millions of tons of sludge, organic waste and industrial residues continue to represent environmental and operational challenges worldwide. Traditional environmental systems still operate with limited optimization, low traceability, fragmented monitoring, and inefficient resource recovery.

2.5B

Tons/Year

45%

Untreated

\$150B

Annual Cost

Solution: Intelligent circular systems with AI-driven optimization

→ [Learn More](#)

System Inefficiencies

● Live Data



Limited Optimization

Low efficiency



Low Traceability

Poor visibility



Fragmented Monitoring

Disconnected systems



Inefficient Recovery

Resource loss

Impact Metrics

● Critical

Environmental Impact

High



Who is BIOAMA

Biotechnology that turns environmental problems into opportunities

BIOAMA was created with the vision of transforming environmental problems into opportunities — through biotechnology.

A bridge between Latin America and Europe through innovation and sustainability.



OUR FOCUS



Waste valorization

Turning sludge, organic and industrial streams into recoverable resources.



Sustainable treatment

Cleaner water and waste processes designed around biological cycles.



Circular bioeconomy

Closing material and energy loops across industrial and urban systems.



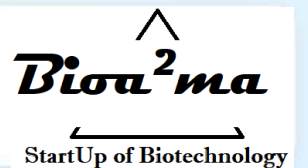
Environmental innovation

R&D-driven solutions for resilient, future-ready ecosystems.



Building bridges between Latin America and Europe

Combining regional knowledge, talent, and ecosystems around a shared sustainability agenda.



A NEW EVOLUTION

BIOAMA IA

Integrating biotechnology with intelligent systems and environmental analytics.



Treat

Biological processes that transform waste, water and organic streams.



Monitor

Real-time sensing and analytics across environmental infrastructure.



Decide

AI-driven optimization and decision support for operations.

→ The environmental systems of the future must become smarter and more connected.

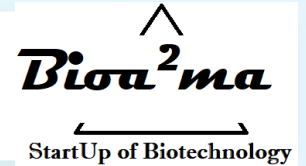
Applications

Where BIOAMA IA creates value across environmental operations



Improve sustainability while increasing operational efficiency

Six application areas where biotechnology meets intelligent systems.



01 · MONITORING

Smart wastewater monitoring

Continuous tracking of flows, quality and biological parameters in treatment plants.



02 · OPTIMIZATION

Process optimization

AI tuning of biological and chemical processes for higher yield and lower energy use.



03 · ANALYTICS

Environmental analytics

Insight engines that turn raw environmental data into actionable indicators.



04 · REPORTING

ESG metrics

Automated environmental, social and governance reporting from operational data.



05 · TRACEABILITY

Intelligent traceability

End-to-end tracking of resources, by-products and recovery flows.



06 · CIRCULARITY

Circular resource management

Closing loops between water, energy, nutrients and material streams.

EcoSwap Alignment

Two complementary forces, one circular platform



BIOAMA CONTRIBUTES

Biotechnology & circular environmental solutions

- ✓ Living, biological processes
- ✓ Waste-to-resource pathways
- ✓ Sustainable environmental impact



ECOSWAP STRENGTHENS

The intelligent & digital ecosystem side

- ✓ Digital infrastructure & data
- ✓ Intelligent ecosystem & orchestration
- ✓ Scalable platform connectivity










Together: scalable circular platforms

Connecting sustainability, biotechnology and smart systems into one shared ecosystem.

WHY NOW

Europe is entering a defining moment

Four converging waves are reshaping the next decade of environmental innovation.

  <p>WATER POSITIVE</p> <p>WAVE 01 Bioeconomy</p> <p>Biological resources moving from niche to backbone of European industrial policy.</p>	  <p>WAVE 02 Climate-tech</p> <p>Unprecedented public and private capital flowing into decarbonization solutions.</p>	  <p>WAVE 03 Industrial biotechnology</p> <p>Biological processes replacing fossil-based chemistry across multiple value chains.</p>	  <p>WAVE 04 AI-driven sustainability</p> <p>Intelligence layered on top of every environmental decision, asset and metric.</p>
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The right time to combine environmental impact with intelligent technologies.

Where biotechnology, climate-tech and AI now converge — BIOAMA IA is built to operate.



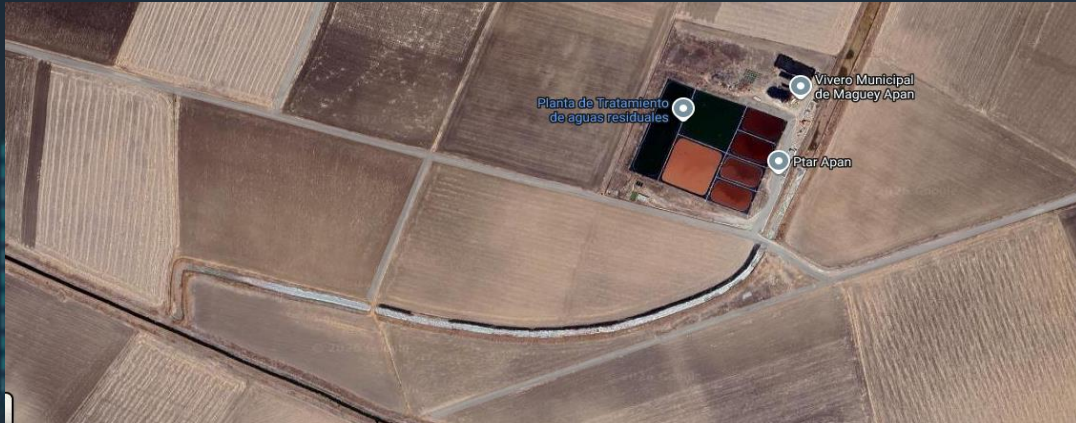
StartUp of Biotechnology



Wastewater Analysis Platform

Intelligent Monitoring System

Our pilot platform in Mexico is designed to study the behavior of treated wastewater in real-world conditions. The system integrates advanced sensors, AI-driven analytics, and circular biotech processes to optimize water treatment and resource recovery.



Real-time monitoring

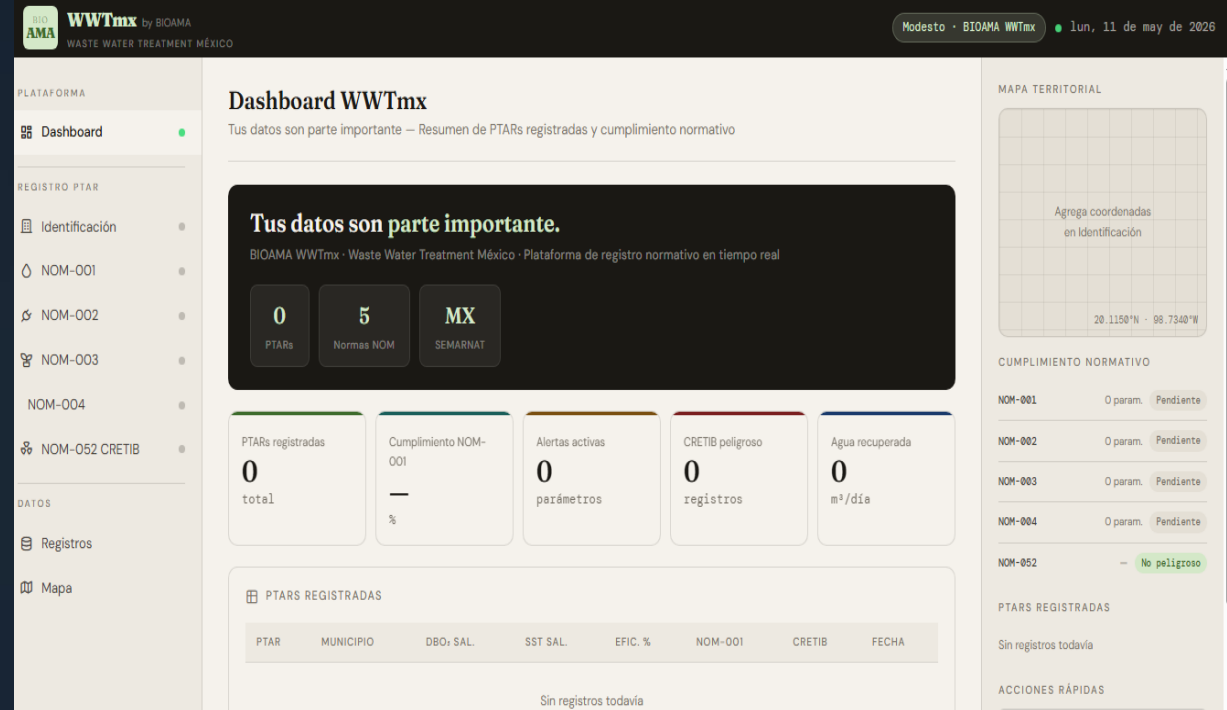
Data analytics

Circular process

Quality control

Platform Preview

Active



WWTmx by BIOAMA
WASTE WATER TREATMENT MÉXICO

Modesto · BIOAMA WWTmx · Lun, 11 de may de 2026

Dashboard WWTmx

Tus datos son parte importante – Resumen de PTARs registradas y cumplimiento normativo

Tus datos son parte importante.
BIOAMA WWTmx · Waste Water Treatment México · Plataforma de registro normativo en tiempo real

- 0 PTARs
- 5 Normas NOM
- MX SEMARNAT

Metric	Value
PTARs registradas total	0
Cumplimiento NOM-001	— %
Alertas activas	0 parámetros
CRETIB peligroso	0 registros
Agua recuperada	0 m³/día

PTAR	MUNICIPIO	DBO: SAL.	SST SAL.	EFIC. %	NOM-001	CRETIB	FECHA
Sin registros todavía							

MAPA TERRITORIAL

Agrega coordenadas en Identificación

20.1150°N · 08.7340°W

CUMPLIMIENTO NORMATIVO

NOM-001	0 param.	Pendiente
NOM-002	0 param.	Pendiente
NOM-003	0 param.	Pendiente
NOM-004	0 param.	Pendiente
NOM-052	—	No peligroso

PTARs REGISTRADAS

Sin registros todavía

ACCIONES RÁPIDAS

24/7
Monitoring

99%
Uptime

50+
Sensors

View Details

Launch Demo

● NEXT GENERATION BIOTECH

BIOAMA IA

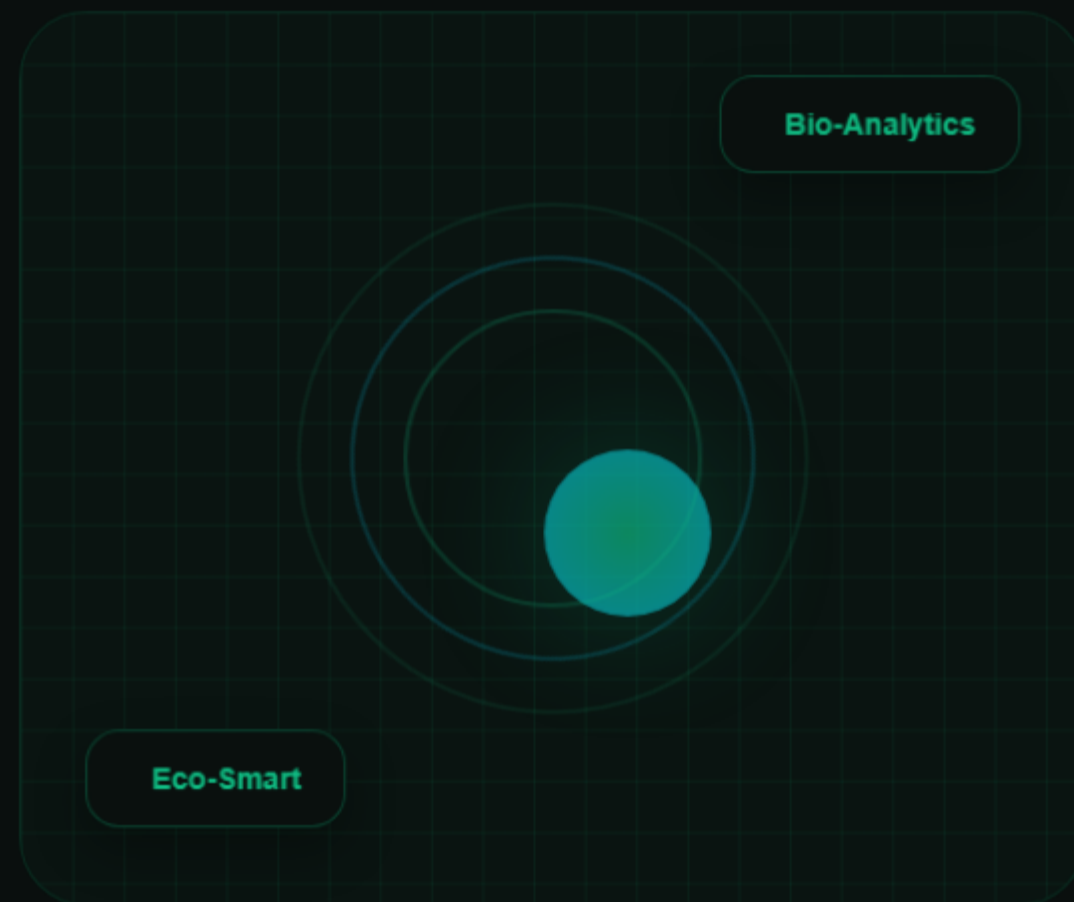
Circular Biotechnology + Applied Intelligence

Transforming environmental challenges into intelligent circular systems.
Pioneering the future of sustainable biotechnology through AI-driven optimization and smart environmental monitoring.

95%
EFFICIENCY

50M+
TONS PROCESSED

24/7
MONITORING



The future of environmental innovation

will not be only biological — or only digital.



Circular

Designed around regeneration, not depletion of resources.



Intelligent

Sensing, learning and adapting at every step of operations.



Globally connected

Bridging regions, sectors and ecosystems on shared platforms.

Our vision with **BIOAMA IA** is to help build that future — through biotechnology, sustainability and applied intelligence.

THANK YOU