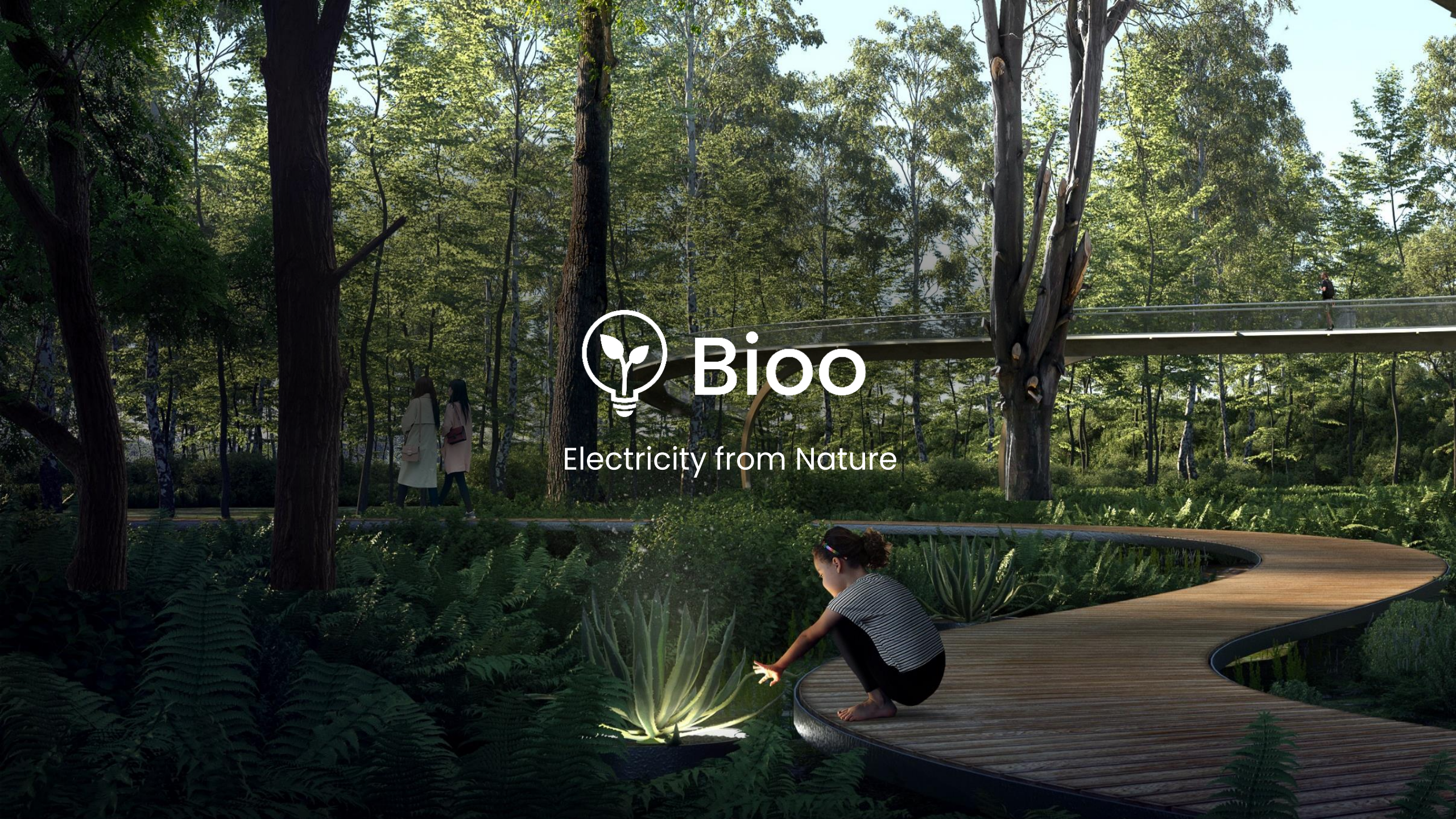




Bioo

Electricity from Nature





R&D supported by the
European Union
2.5M€ from two H2020 grants



International awards
50 +
(EU, Google, Forbes)

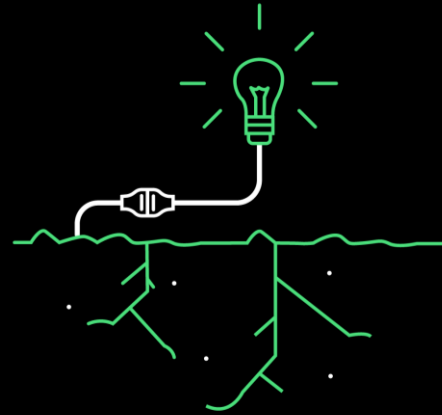


One line on the market
+ 3 Patents
(1 active worldwide, 2 filled)

Bioo, 2.5M€ from two H2020 100% subsidized grants, 3 rounds of private funding totalling 1M€

Our Technology

unlocking a new energy source

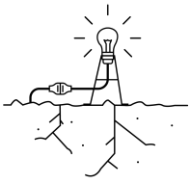


Products: Bioo Sensor &
Bioo Panel, in R&D

Biological batteries collecting
electrons from the breaking down of
organic substances in the ground,
without damaging the plants

Bioo Sensor

powering sensors in agriculture



A photograph of a row of young green plants in a field. A blue circular sensor is placed on the soil between the plants. The background is blurred, showing more rows of plants.

12

months to replace
a current chemical
battery in a sensor

Solving a worldwide issue in
agriculture, with a market
growth rate of 14.7% YoY



Placed below soil level,
nourishing from
organic substances
dragged by irrigation
and rainwater

Bio Sensor, Integration; Compatibility with multiple sensor types (humidity, temperature, pH, and other)



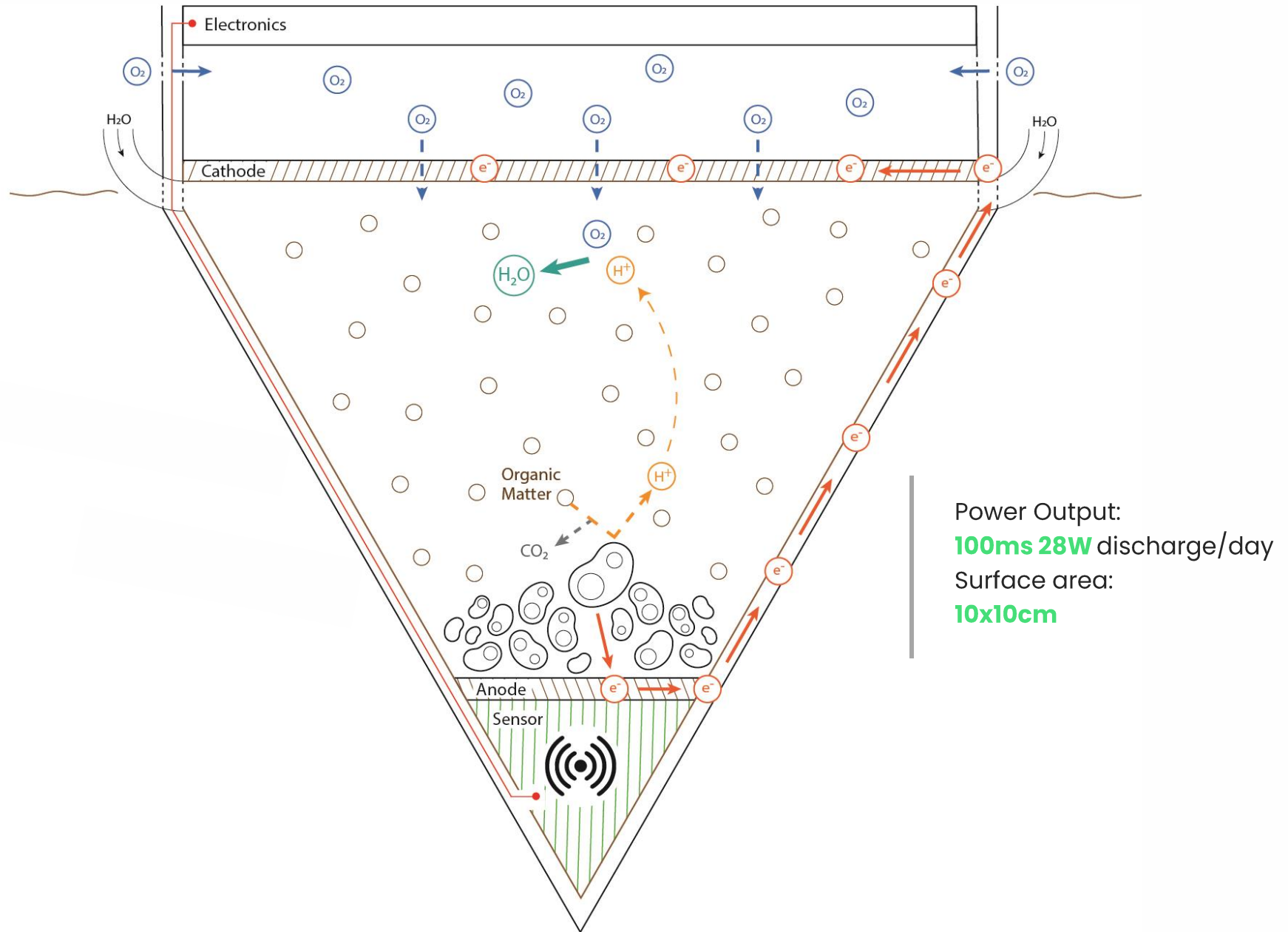
day & night
energy generation,
full weather-proof



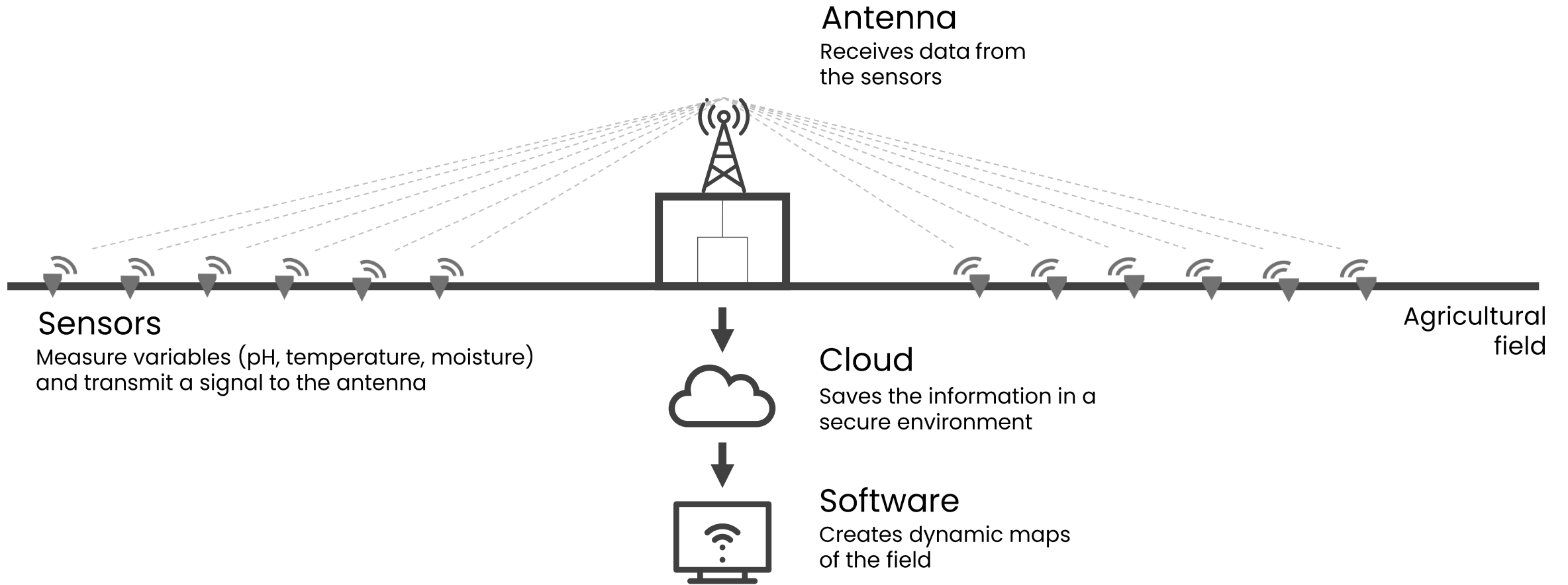
safe automatic
recharge every time
fertilizers are added



environmentally friendly
and made of sustainable
materials (graphite)



Bioo Sensor, Technology; Up to 3000 times the electrical generation required for a standard temperature or humidity sensor to operate



Bioo Sensor, Integration; Compatibility with multiple communication protocols (LoRa, Zigbee, and other)



Bioo Reactor

Sensor's energy generator



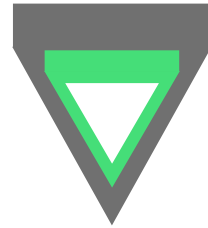
0,75 €/unit

Production Cost



Bioo Sensor

Manufactured unit



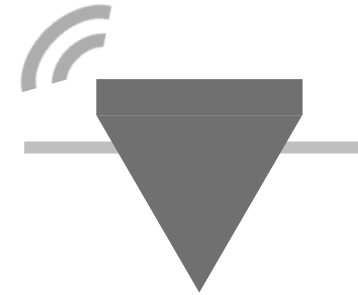
15 €/unit

Production Cost



Bioo Sensor

Commercial unit

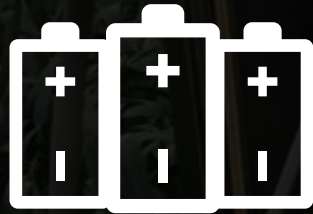


30 €/unit

Market Price

Power Sources for
Sensor Powering
Available

Bioo Sensor Reactor Comparison



Chemical Battery

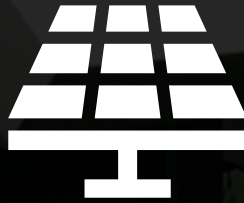
price/sensor: **4-10 €**

(Including 3 AA batteries per sensor)

lifespan: **1-5** years

maintenance: **none**

environmentally noxious



Solar Panel

price/sensor: **20-250 €**

(Including structural costs for agro-sensors: height + protection)

lifespan: **>20** years

maintenance: **2-24** months

carbon neutral



Bioo Reactor

price/sensor: **0.75 €**

(Including structural costs and biological components)

lifespan: **3-10** years

maintenance: **none**

carbon negative

Sensing Solutions on the
Market, their Power
Sources & Prices

Bioo Sensor Competitors

Product	Power Source	Market Price / unit
Bioo Sensor	Bioo reactor for agriculture	30 €
Lansitec	chemical battery	42 €
Ursalink	chemical battery	76 €
Pycno	solar + chemical battery	550 €
Arable	solar + chemical battery	670 €
Libelium-Fasal	solar + chemical battery	1,750 €
Cesens	solar + chemical battery	1,780 €
Plant-e	PMFC	not on the market



Crop IoT Market

11,5B €

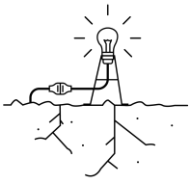


Target Market

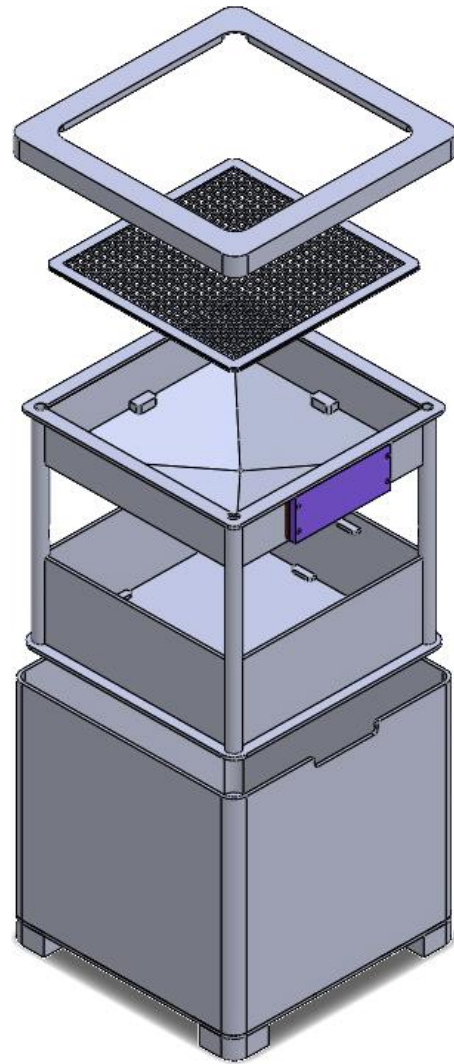
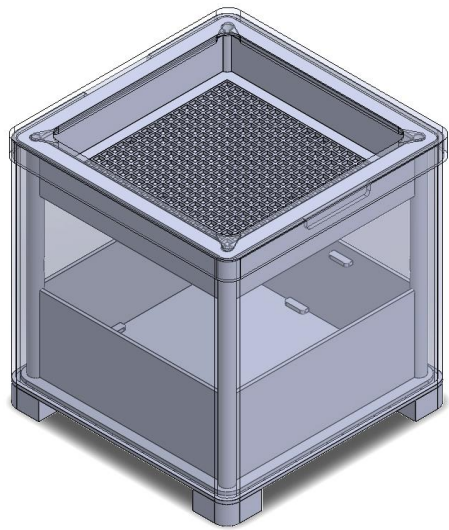
1,8B €

Bioo Panel

smart cities application



Powering automatic irrigation systems (V1) and light points in parks and gardens (V2)



Bioo Panel, Recreation; First open implementation: Oct 2020 (lower image), under research and development since 2017

CO₂ Saving and
Sequestration
Estimates

Climate Impact



CO₂ footprint per year

Sensor: -445.4g / unit

Panel: -334.4g / m²



Objective to reduce global
emissions by 2050 by

1% or 0.5 Gigatons

Product Lines
Implementation
2020 -2021

Road Map



Business Model

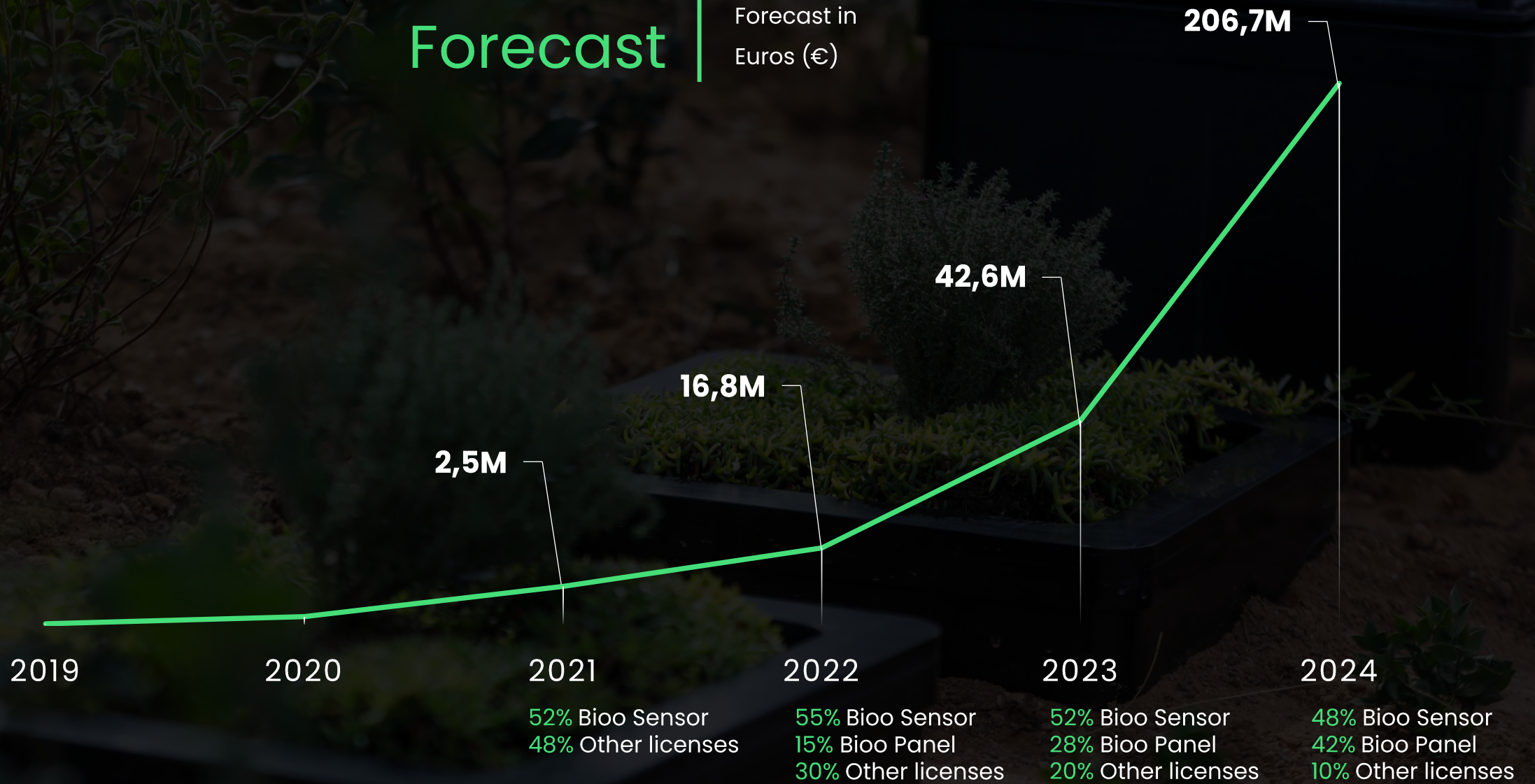
Tech & IP
License
Model

License model to manufacturers
Production & deployment borne by client
Bioo Sensor: 10-15% royalties



Revenue Forecast

2021 to 2024
Forecast in
Euros (€)



Core Team (15 members)



Pablo Vidarte
Founder & CEO



Rubén Costa
Technology Director



Mario Sánchez
Project Manager



Francesc López
Sales Director



Fabiana Molina
HR Director



Martin Kravchenko
Investor Relations



Lukasz Kowalski
Electronics Engineer



Shani Wright
PR & Communications



Miguel Yebra
Accountant



Naroa Uria
Lead Microbiologist



Luca Delloro
Marketing Coordinator



John Morales
Electronics Engineer



Raquel Rodrigo
Sales Manager



Cybeles Nunziata
Industrial Engineer



Clara Lapeira
Communications Assistant

Advisors



Dr. Josep Castells
CEO, IUCT Inkemia



Dr. Thomas Saylor
CEO, Sirius Limited



Francesc Riverola
Founder, FXStreet.com



Òscar Expósito
CEO, Vyrus Biotech



Josep Surinach
GM, ISOLANA

Private Funding

Breakdown
per Phases

Phase A

Q3 2021

Bioo Sensor Launch &
Commercialization

2,5M€

Technical, R&D: 35%
Commercial, Operations: 50%
Marketing: 15%

100K€/month (2021)

Phase B

Q4 2022

Bioo Sensor Licensing &
Bioo Panel Launch

10M€

Technical, R&D: 30%
Commercial, Operations: 55%
Marketing: 15%

190K€/month (2022)
340K€/month (2023)

Capital Round

Use of Funds

Fixed Expenses

10% Office, lab, IT, etc.

90% personnel



Bioo

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