





Eutrolife

Circular water treatment

BY: MIMI  CREW



Globally, the number of lakes with harmful **algal blooms** is estimated to increase by **20%** by 2050





#NoticiasCaracol

↙ GUATAPÉ, ANTIOQUIA

BACTERIA AMENAZA EL EMBALSE

Problem



Industrial discharges



Fish Farming



Fertilizers

Problem



Excessive biomass growth



Death in the ecosystem

Problem

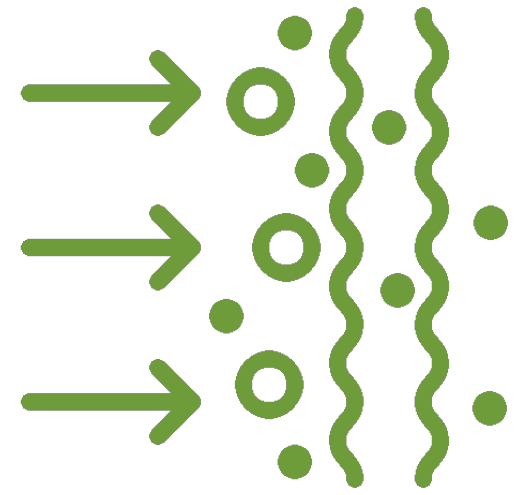


Death in animals

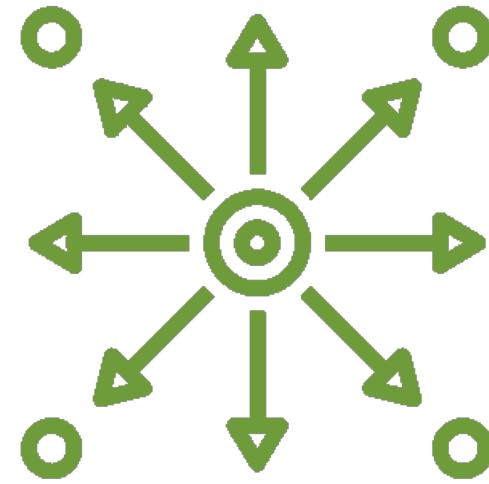
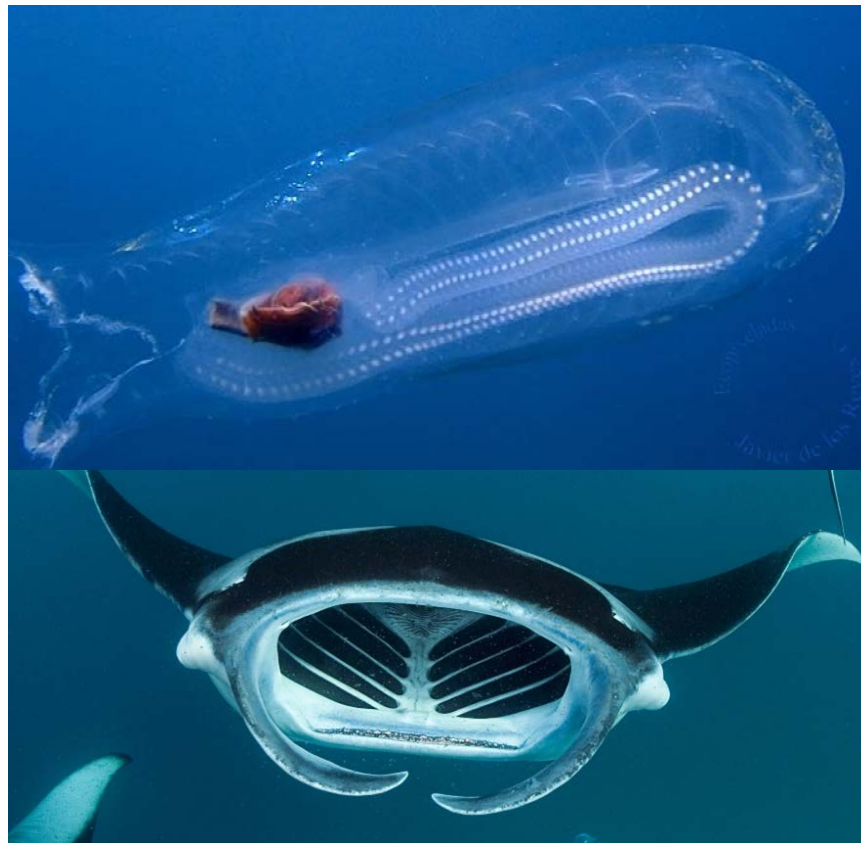


Health issues

Biomimicry



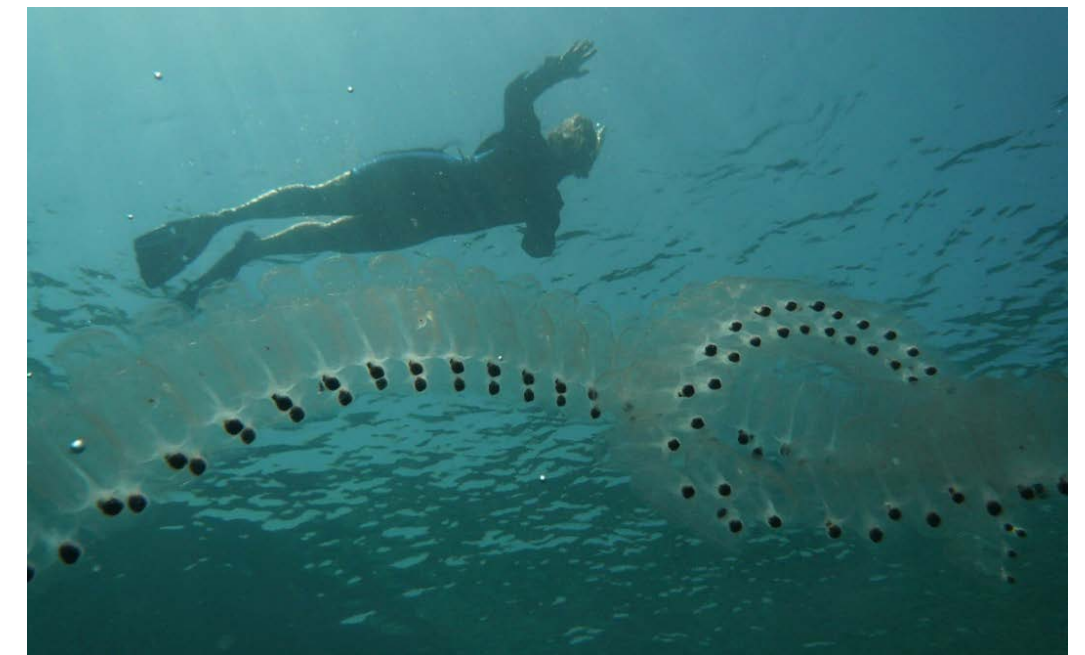
Filtering



Distributing



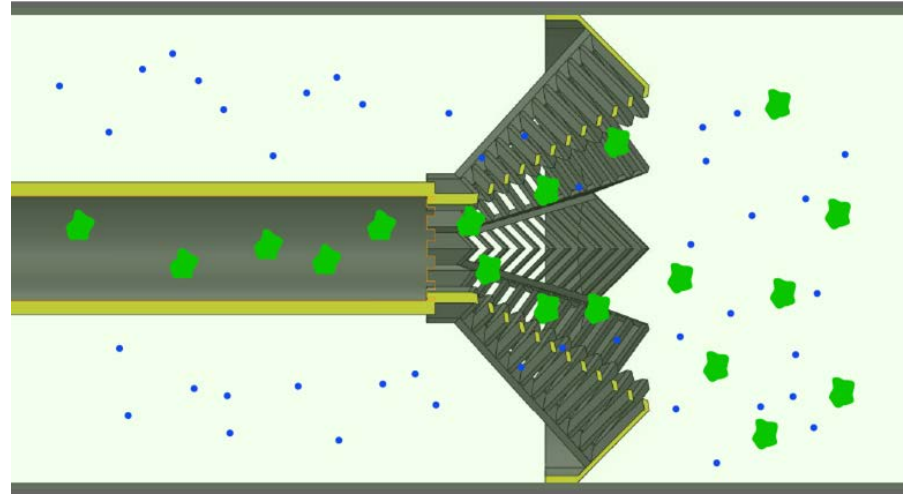
Clustering



Eutrolife solution



1

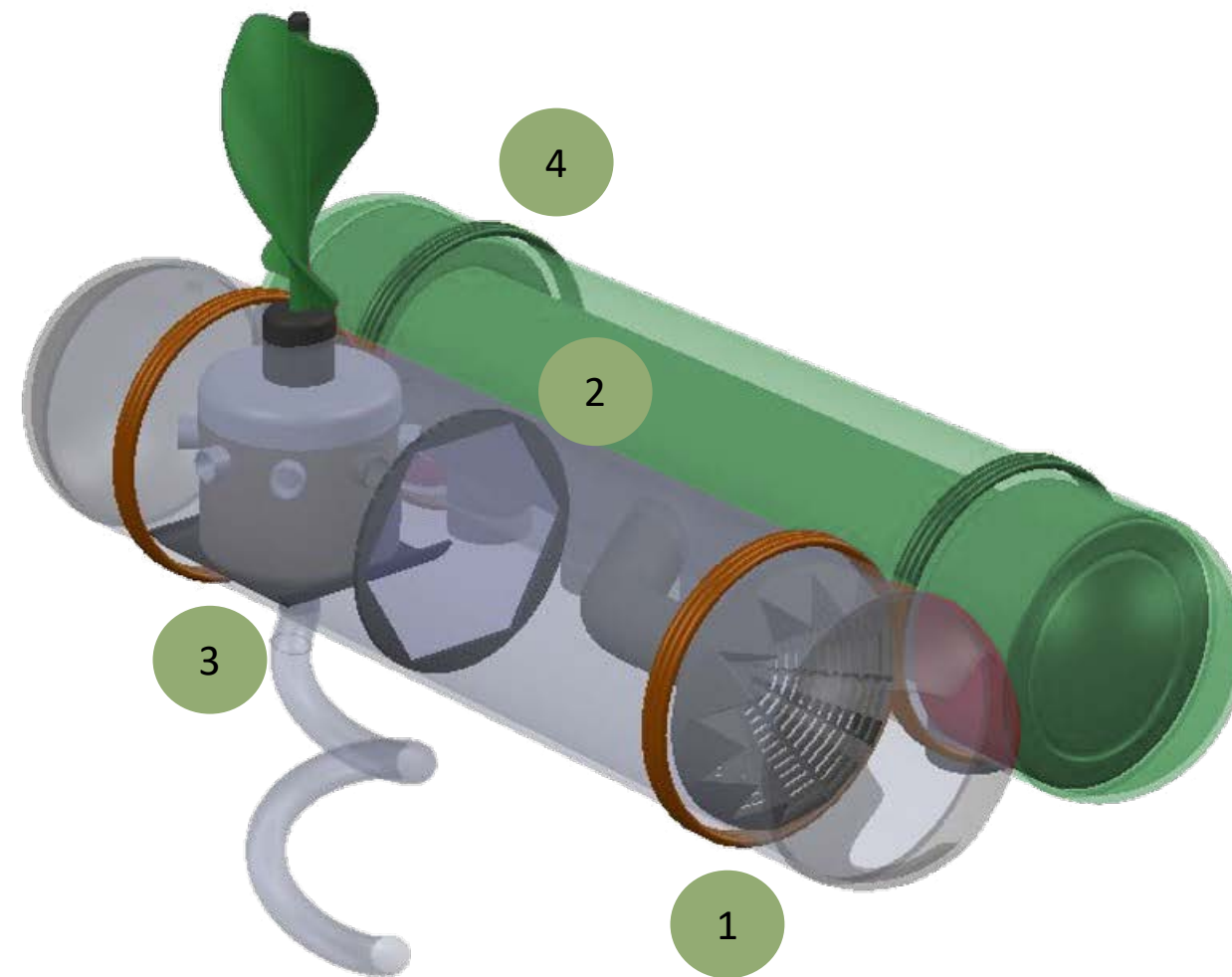


Size exclusion filter
(Inspired by Devil rays)

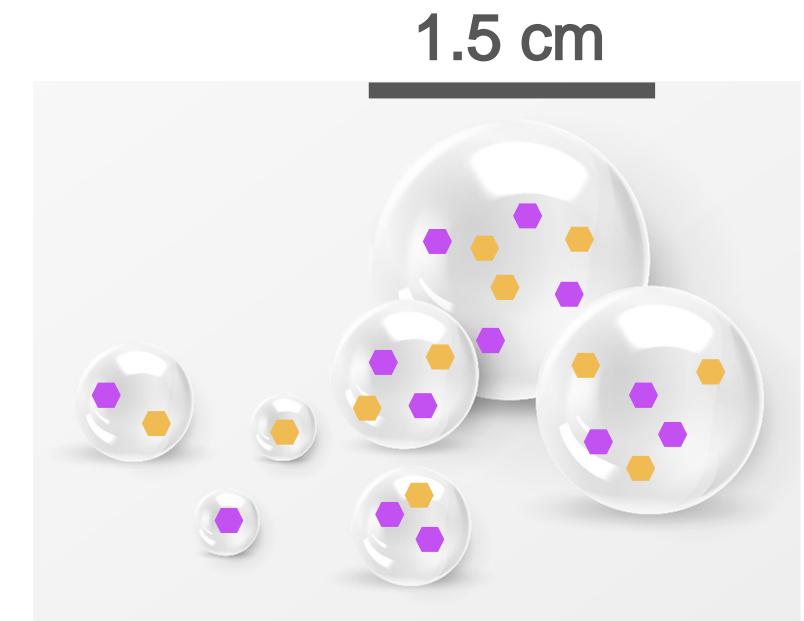
2



Nanofilter
(Inspired by the Salps)

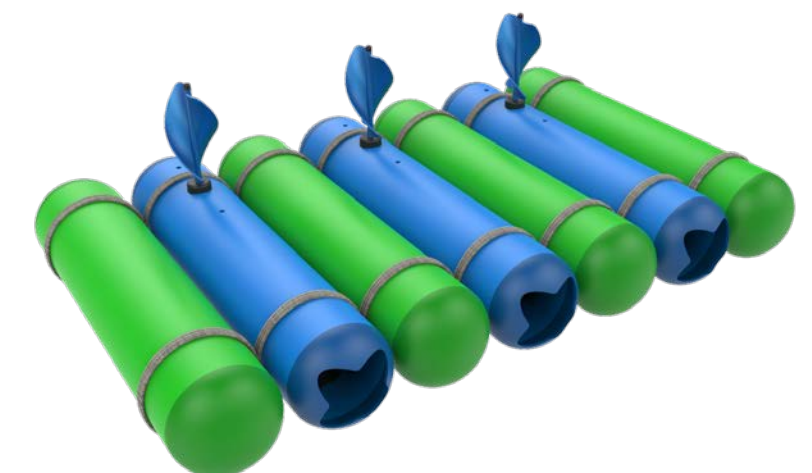


3



Immobilized nutrients
in polymer

4



Optimization through
clustering



Water treatment competitors



Eutrolife



LG SONIC
Leading in ultrasonic algae control



| | Eutrolife | LG SONIC | biohbac | SEVERN TRENT | VEOLIA |
|-----------------------------|-----------|----------|---------|--------------|--------|
| Low cost | ✓ | | ✓ | | |
| No use of harmful chemicals | ✓ | ✓ | | ✓ | ✓ |
| Easy to install | ✓ | | ✓ | | |
| Low maintain | ✓ | | | | ✓ |
| Up cycling waste | ✓ | | | | |

Highlights of Eutrolife



Unique process

No need of separate steps



Non-disruptive solution

No need of harmful chemicals



Up-cycling waste

Converting waste into resources



Positive social and economic impact

New job opportunities for locals

Two Markets



Crops



houses
and
farms



Livestock
farms



schools and
universities



Local
governments

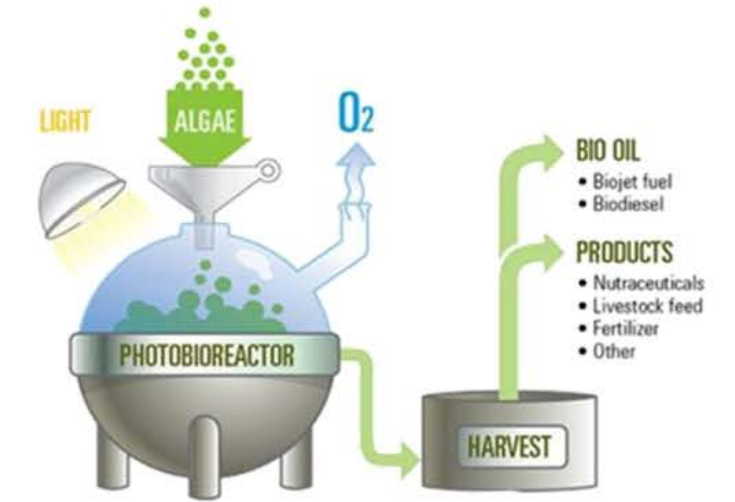


Countr
y
clubs



Biomass
compartment

Microalgae



Industries



Nanofilter

Cyanobacteria



Cyanotoxins
(Lab tests)

- Water remediation

- Biomass: Algae, Cyanobacteria

Markets sizes



\$6 billion
USA
government
investment

\$ 1.1 million
Norwegian
government
investment

\$211.3 Billion

Water and wastewater treatment
global market by 2025

**\$186
Billion**

Bioremediation
global market by 2023

\$ 5.17 Billion

Algae products
global market by 2023

Investment



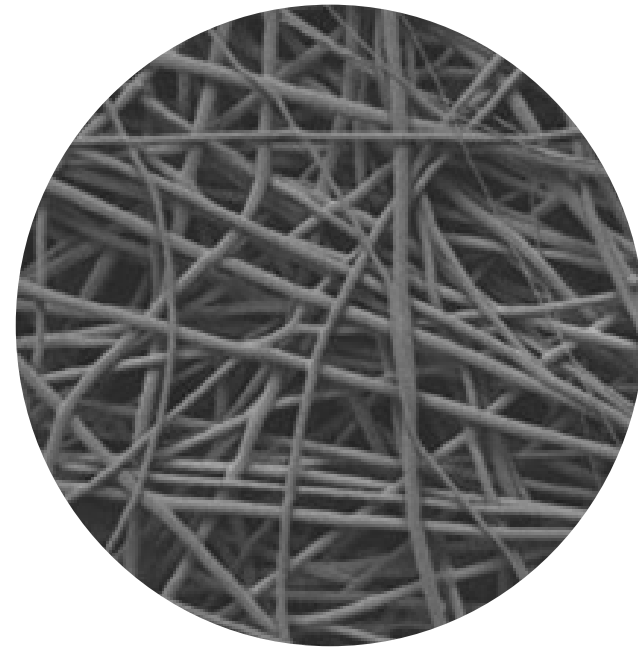
\$98,500
Initial investment

| Item | Approx. price |
|---------------------------|---------------|
| Electrospinning equipment | 200,000 USD * |
| Eutrolife device | 20,000 USD |
| Start-up back up | 50,000 USD |
| Lab supplies | 28,500 USD |

One-time expenditure



3D Imprinted filter

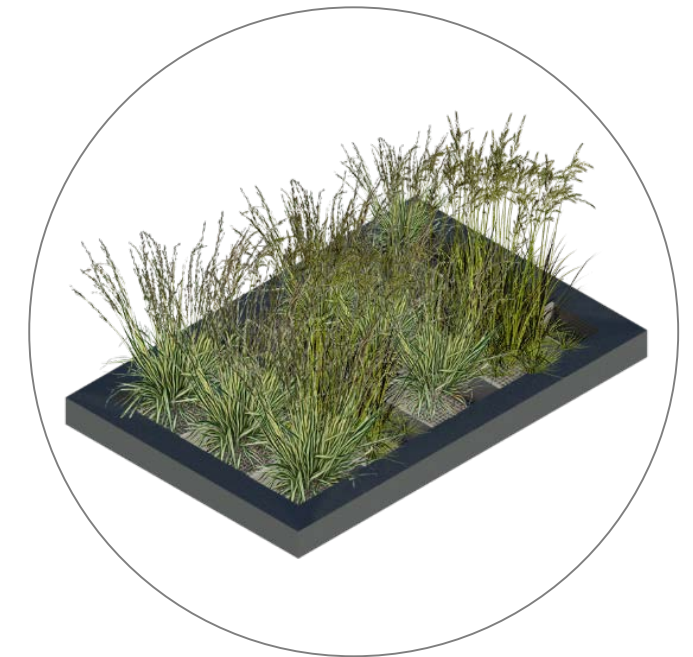


Microscopic aspect



Immobilization in beads

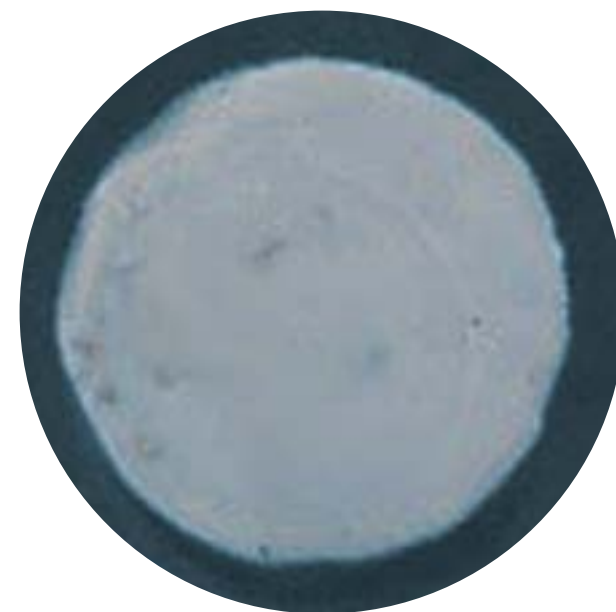
Improvements



Absorption Island



3D profile



Macroscopic appearance



Polymeric beads



Jennifer Balcucho Escalante David Sánchez Nielsen

Co-founder

Industrial microbiologist
Master in Biological Sciences

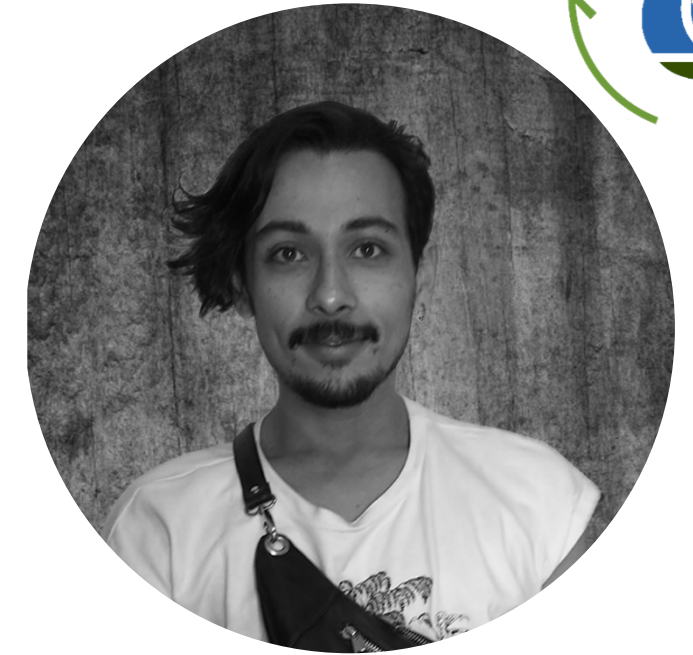


Co-founder
Architect



Sebastián Balcucho Escalante

Economist



Joan Berrío Casilimas

Biologist



Andrés Cardona Mora

Civil engineer



Thanks

for

your attention

