



Aither

Carbon Negative
Microalgae Air Purification

Carbon and Climate Startup Ecosystem

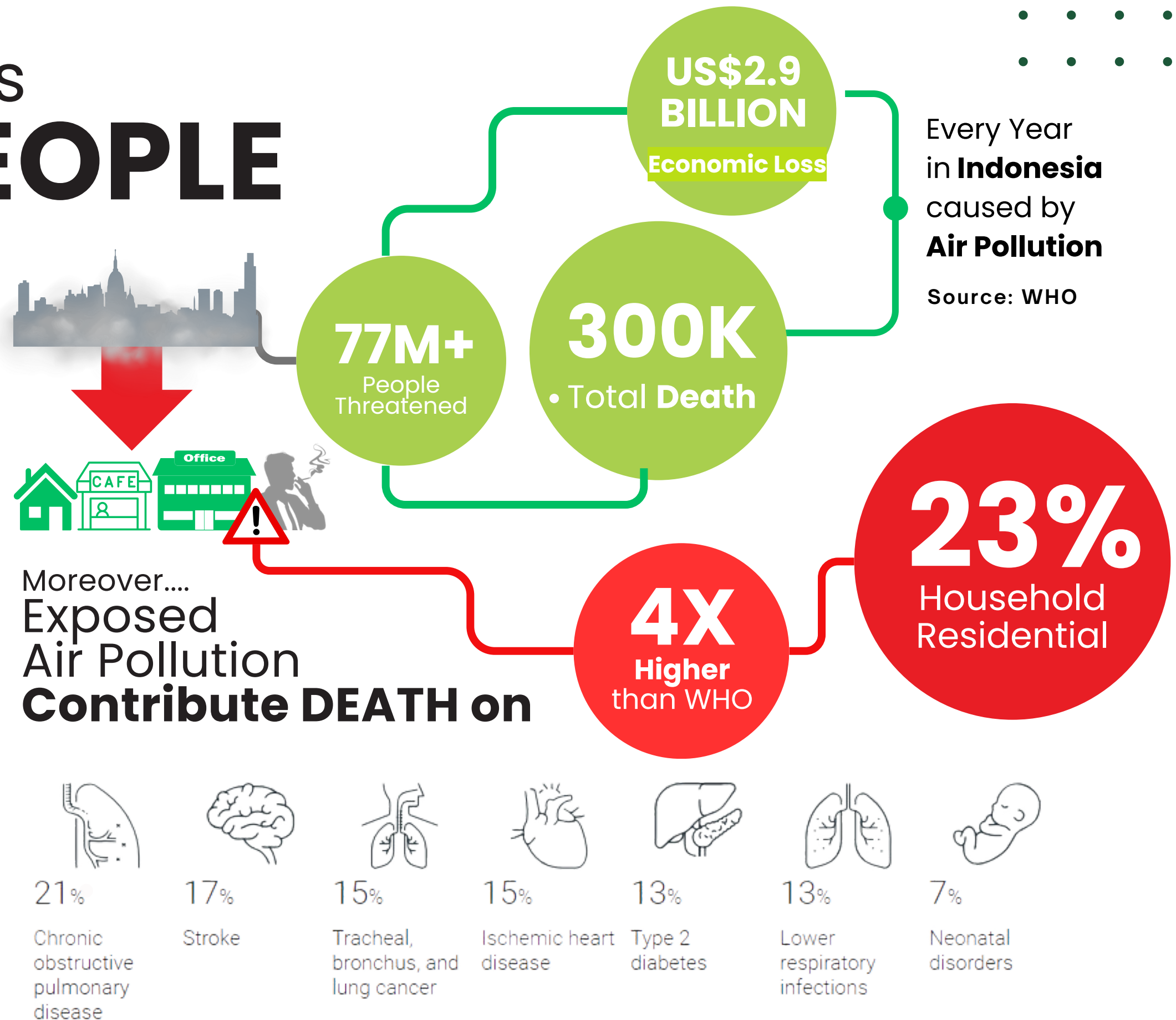


Indonesia Air Pollution's IMPACT ON PEOPLE



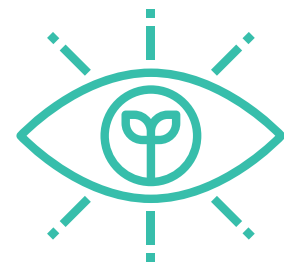
“**5-year-old Zidan** fights acute asthma worsened by air pollution. His struggle to breathe leaves **his face pale and blue**, underscoring the critical **need for cleaner air**.”

*Source: Dutch Welle Indonesia



AITHER

COMMITMENT FOR
FUTURE GOALS



Vision

To be the world's number 1 climate tech startup with products and services that are solutive through a collaborative, adaptive, and innovative spirit based on green technology for the world's green economy.



Mission

- Development of Green Product based on ESG Concept for sustainable sector through 3G Spirit (Green Economy, Green Infrastructure, Green Emission).
- Focusing on being adaptive and collaborative to market dynamics and working in an Agile Customer Oriented manner with all stakeholders.
- Collaboration to create innovative products and services and/or social empowerment based on green economy

To Solve Air Pollution

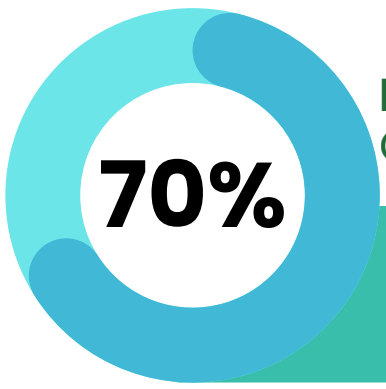
HOW DO WE CONTRIBUTE?



BIOTECHNOLOGICAL AIR PURIFIER WITH

EMISSION CONVERTER

Setara dengan pohon berusia 11 tahun!



Main Features:
Oxygen Generator dan Pollution Reducer

High Potential **Reducing Carbon** in the Ambient Air



2x Increase Tree Growth Rate



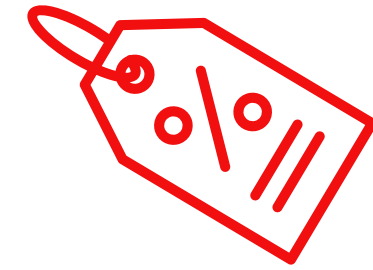
17% Increase Oxygen Rate

- 1 Low Energy consumption
- 2 Small, but cleans perfectly
- 3 Saves spaces with minimalist design

SPECIFICATION

Dimension	H : 34 cm L: 28 cm W: 14 cm
Microalgae Capacity	1 litre
Electrical Needed	20 watt / 220V
Coverage Area	15 m

PRODUCT LINE UP OF AITHER CLIMATE ECOSYSTEM SOLUTION



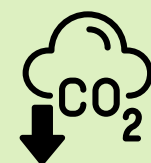
Aither CDR Product

Zero and Negative carbon Removal

Enhance Ambient Air Quality



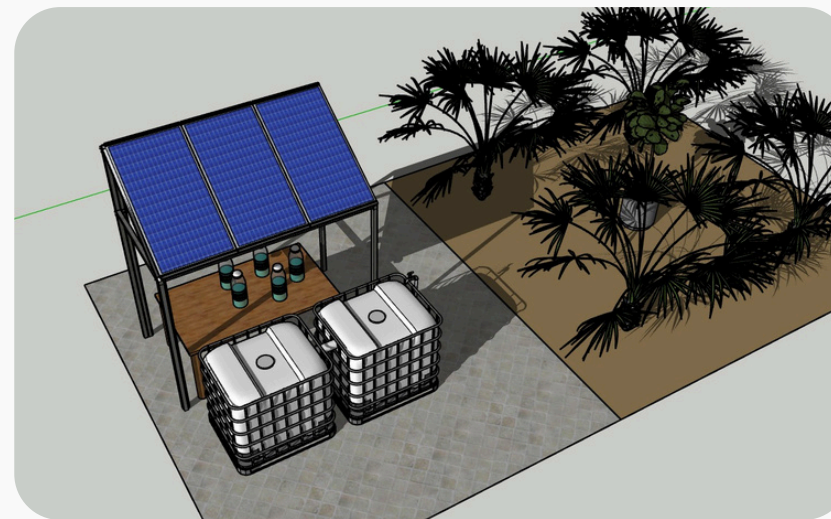
1-200 Ton CO2 Removing



Carbon Removal

Algae Sequestration

Increase soil and crops health using microalgae



+20% Productivity



Crops Growth and Soil Health

Carbon Service

Meningkatkan ESG Impact dan dampak keberlanjutan

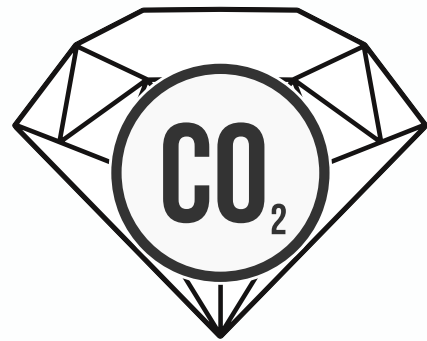


Available Service

- ✓ Event rendah karbon
- ✓ Inovasi pengurangan karbon
- ✓ Report dan Analysis

CLIMATE ECOSYSTEM SOLUTION

IMPACTED ON SOCIETY AND ENVIRONMENT



**High Sensing Quality
Carbon Removal**



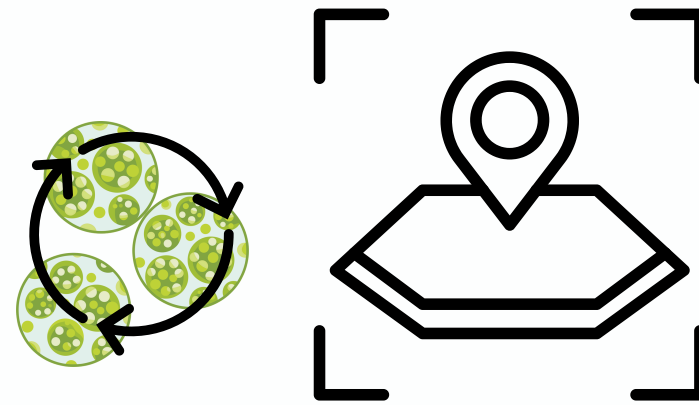
Kantor Pusat PLN Indonesia

Caffetaria terasa lebih segar. Asap tidak lagi nembus ke ruang AC



Pohon Kopi

udara sangat terasa lebih segar setelah menggunakan aither. Asapnya berkurang, mata tidak perih, dan bau tidak menyengat.



Low Land Usage



13+ Million People

Direct and Indirect Beneficiaries



20 Places

Aither Purifier Installed



200 Ton CO2e

Carbon Offsetting



Carbo As A Service



20 Partnership

Across organization



265 Follower

Organic Follower Social Media



Rp.300 Million +

Annual Revenue in 2025



FARREL KAMALUDIN

CEO

Engineering Physics

- Indonesian Youth SDGs Ambassador 2025
- A Chosen Innovator by Ministry of Youth and Sport Republic of Indonesia 2022
- Ex-Panasonic RnD Team



DINI ERMAVITALINI, S.SI., M.SI

Advisor

Biology Lecturer

- Microalgae Expertise with International Journal Publication



ALI IRSYAD

Advisor

SDGs Expert

- Chairman IJAD Group & Holding
- Managing Director of CESGS Airlangga University



RIVA RIZKIANA R

Project and Partnership

Engineering Physics

- Funded in +7 National and International Research Projects
- Successfully led USD 30K Project and impact to million people



SLAVIA SERGY

Business Assistant

Business Management

- Successfully Lead IDR 100 million Rupiah Business Revenue
- Recognized in multiple National Business Competition

microalga.project@gmail.com

Science Technopark ITS 2nd Floor
Surabaya



AITHER IS SUPPORTED BY



ILBI

ADB

ASIAN DEVELOPMENT BANK

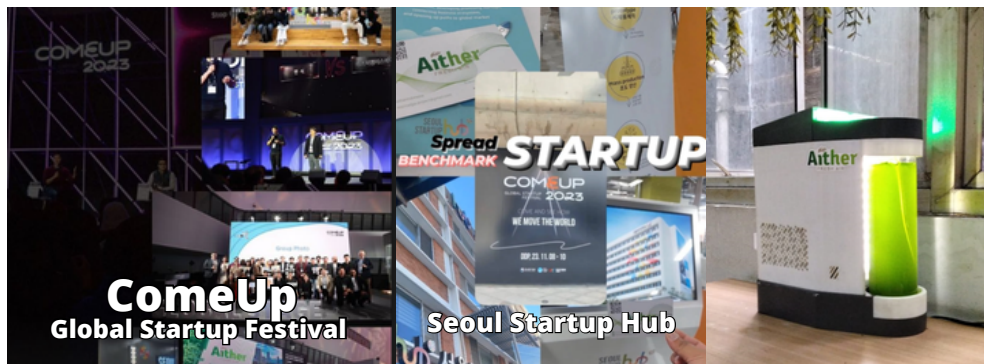


**20+
MORE**

AITHER TRACK RECORD

on Creating Product Innovation

AITHER AIR PURIFIER



Aither's **Innovation** to **tackle** indoor air **Emission**.

Past Traction:

- 10+ Multinational Institution Collaboration
- 10+ Product places across country

YOUTH GREEN HACKATHON



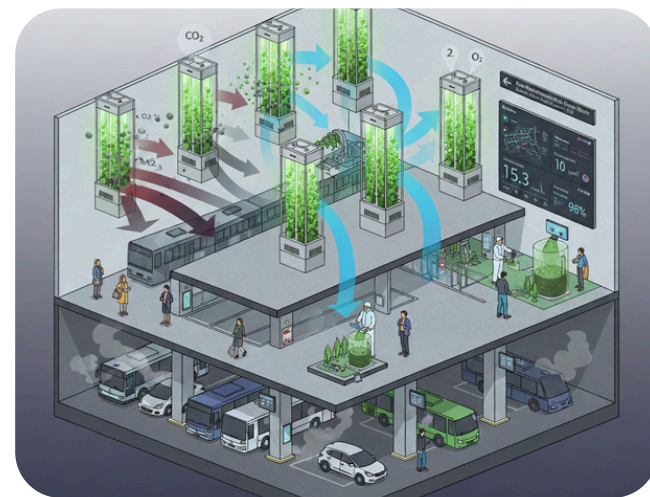
Aither's **Movement** on Spreading Sustainability **Spirit** in **Country Side**

Past Traction:

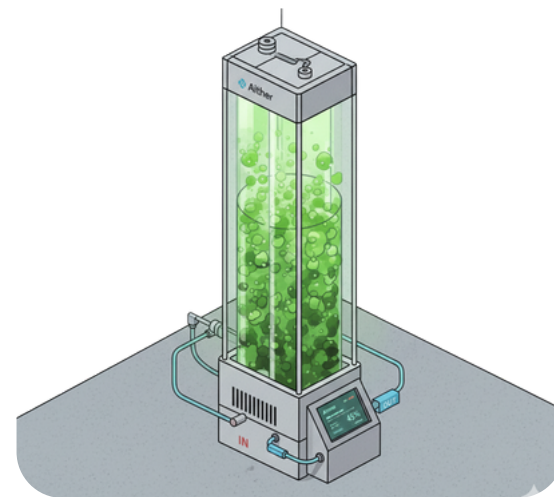
- 13 Million Engaged People
- 133 Ton CO2e Offsetting Carbon Emission

Aither contributes to strengthening the four pillars of the SDGs

GENERATING SUSTAINABILITY EMISSION



Flue gas will be Sucked at sampling point and **Cooled to 25-30 Celcius.**



the carbon dioxide will **synthesize** to oxygen through photosynthesis process and **Integrate to carbon credit**



Microalgae **Biomass** extracted and can be **turned** into **utilize** product



Soil Remediation



Biodiesel



Fish Feeding

those **product** can Support **Sustainability** and **ESG Improvement** on Pertamina's Annual Target

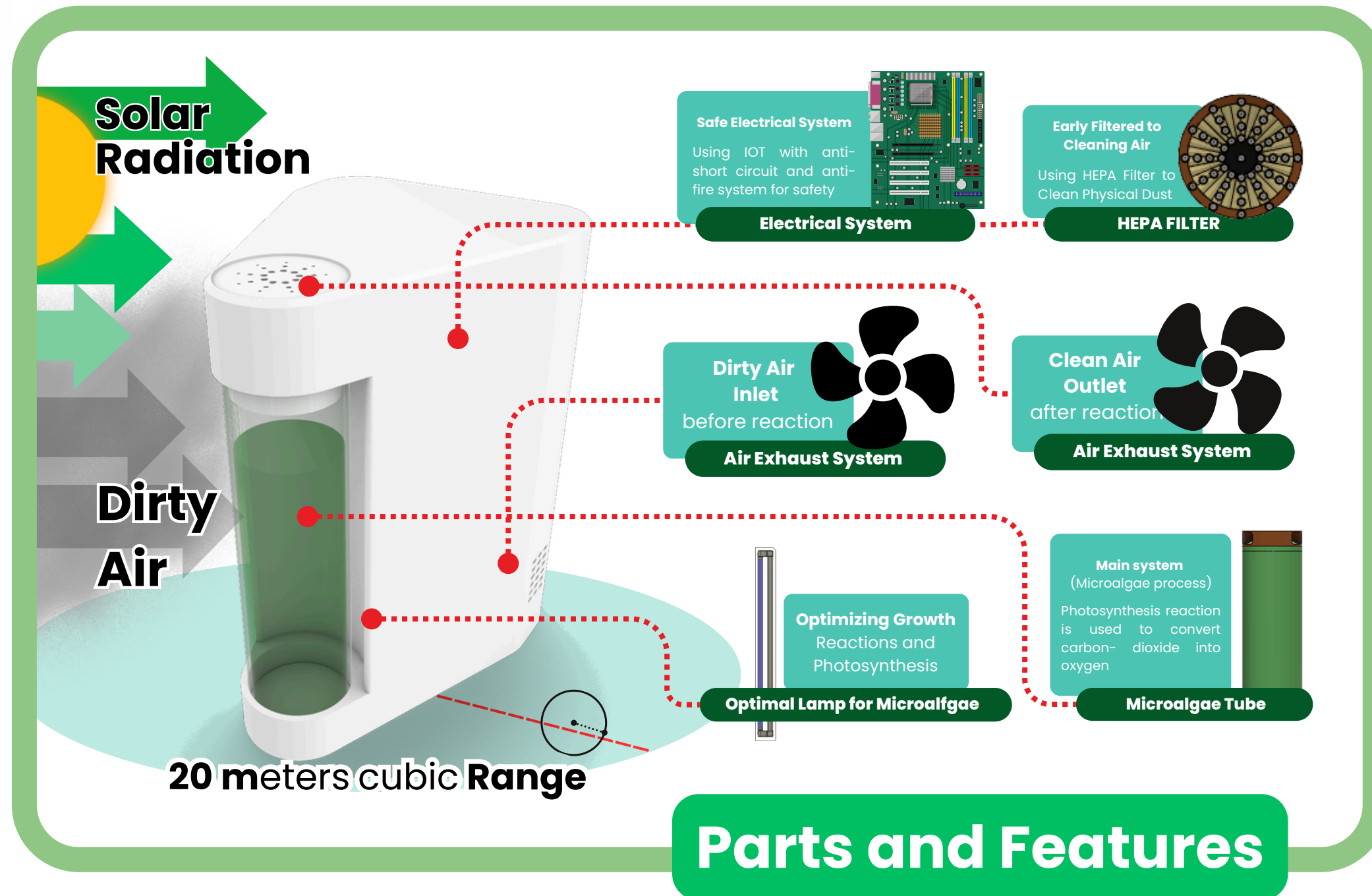
From Pollution to Impacted Product for society

SDGs Pillar



HOW DOES IT WORK?

Let's take a Look!



Systematic

- 1 Dirty air is absorbed** using a fan through inlet pipe.
- 2 Dirty air is filtered** with a dust filter and a hepa filter.
- 3 The filtered air is flowed** into the microalgae tube.
- 4 Carbon gas in the air will be captured by microalgae.**
- 5 Clean fresh air is discharged** through the outlet.

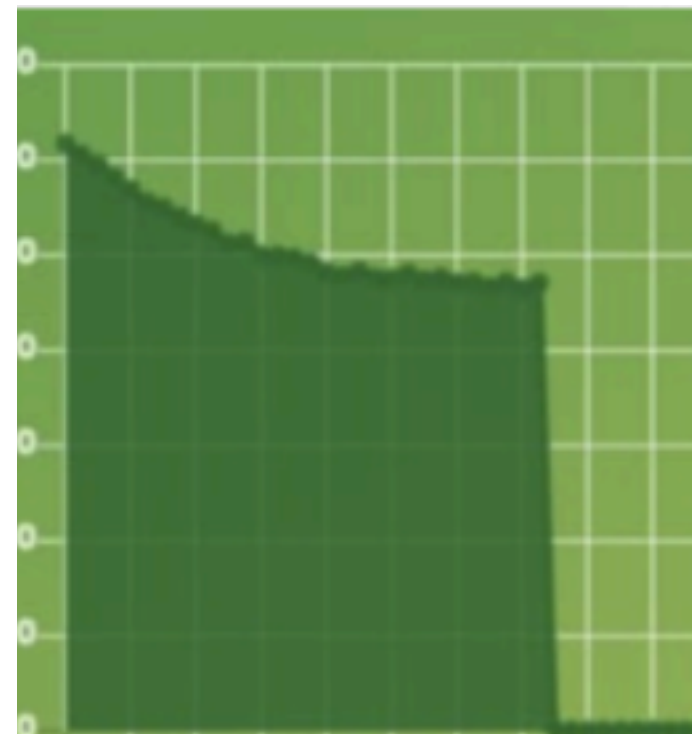
TRL 6 : TESTED IN REAL ENVIRONMENT

PILOTING MICROALGA CDR PROJECT

CDR Performance through Direct Air Capture. After the device is activated, a decrease in CO₂ levels is recorded and updated on the CO₂ traction website.



ON-SITE DEVICE TESTING

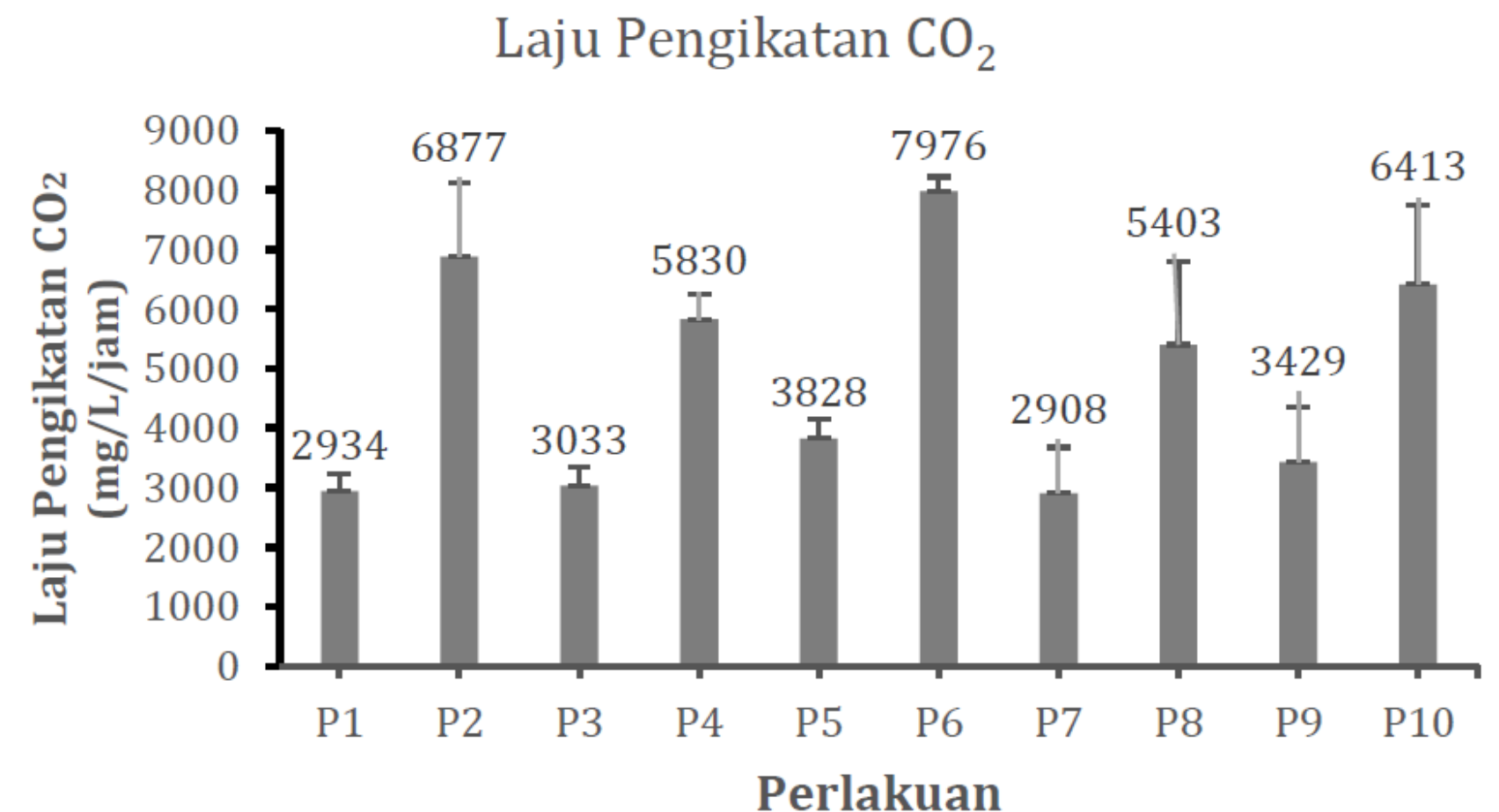


TESTING DATA

Best Performance:
A decrease from 1124 ppm to 686 ppm within 45 minutes

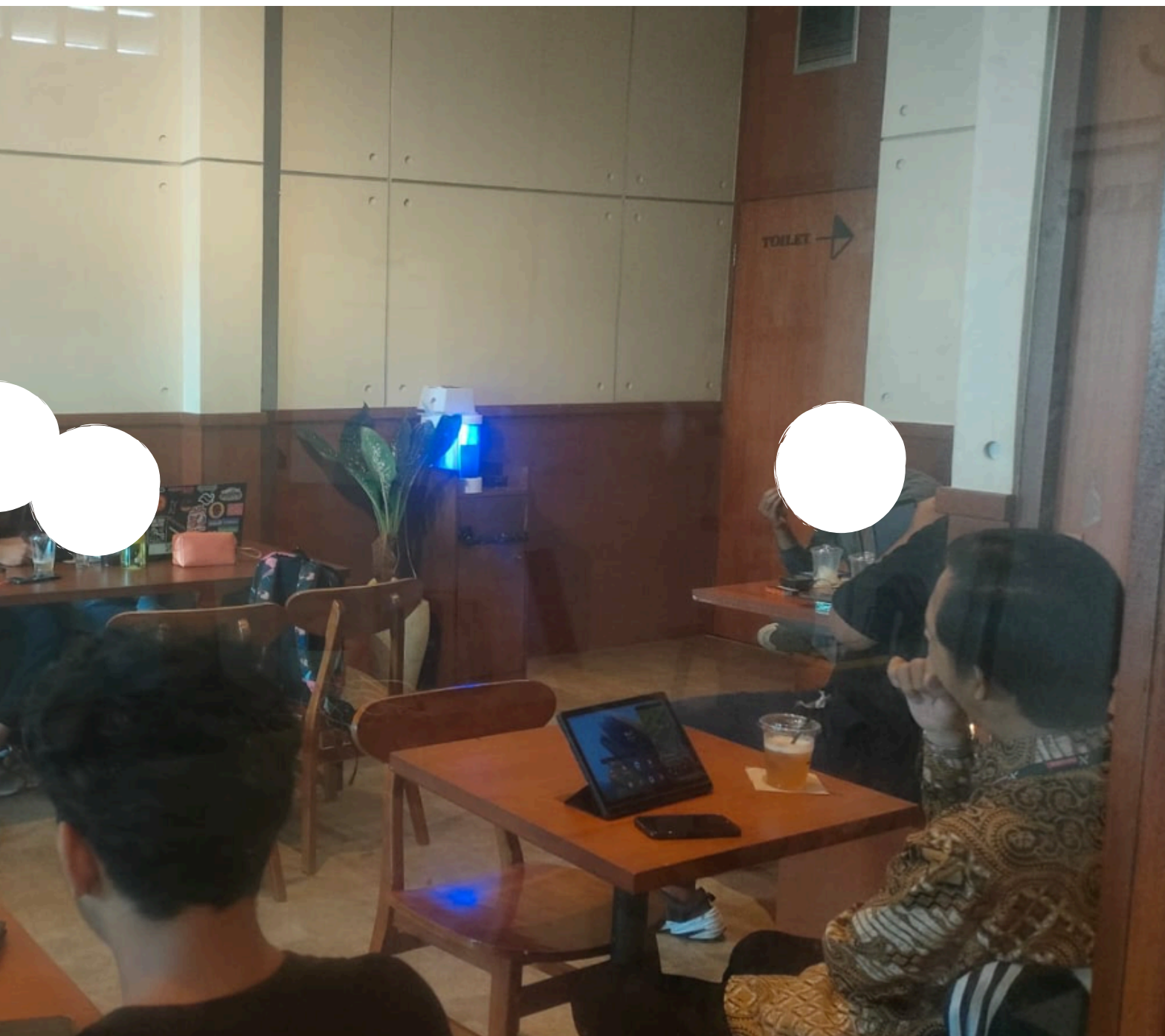
SCIENTIFIC RESEARCH IN LABORATORY BASED

This research was conducted to test the capability of our microalgae in carbon capture and storage (CCS) technology.

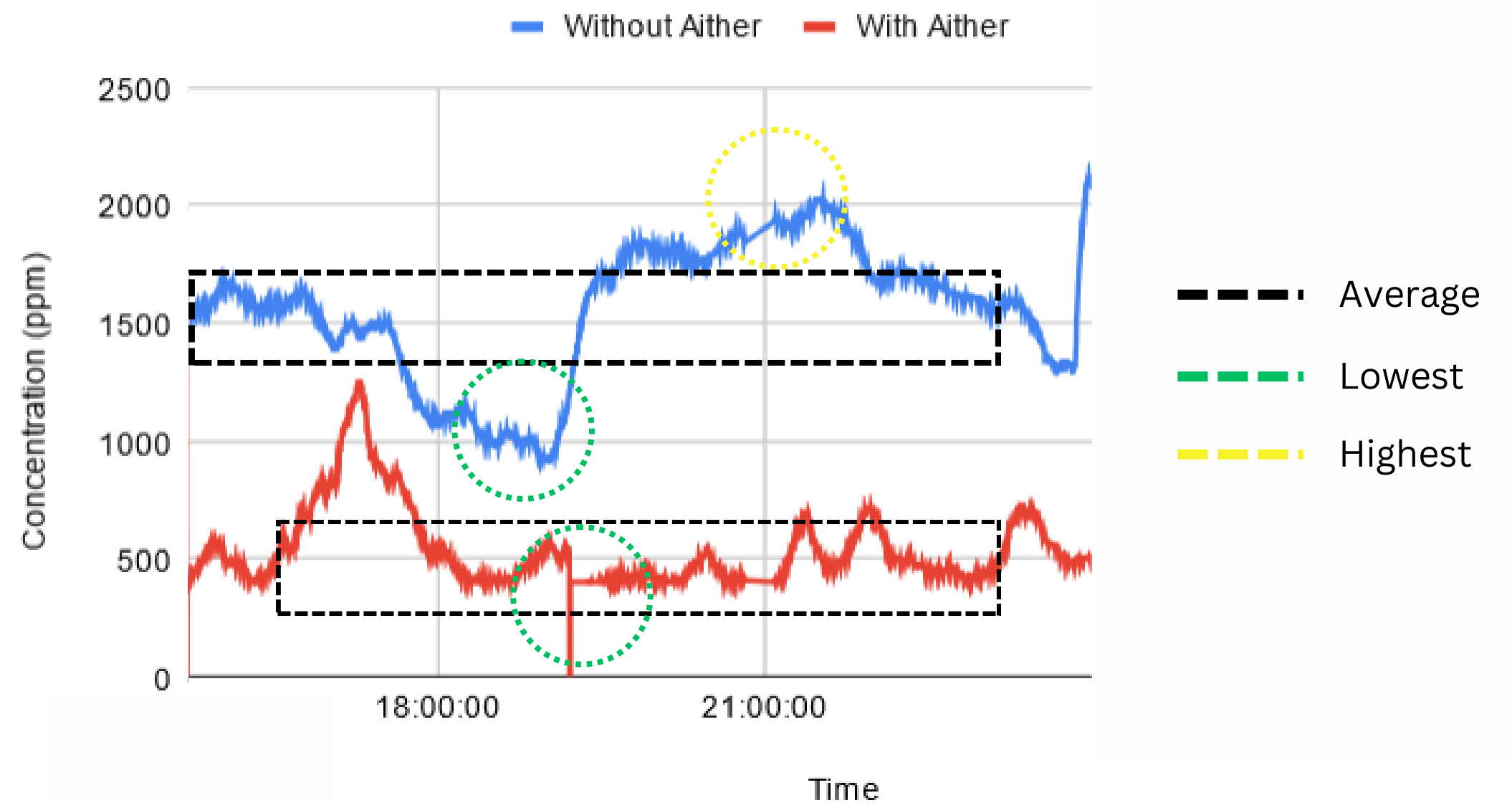


The carbon absorption rate of microalgae, reaching nearly 8 grams per liter per hour, is showing promising potential to become a carbon capture solution.

PILOT TESTING PROOFING CARBON ABILITY





Carbon Dioxide Concentration in Two Condition






Aither initiative to support SDG no. 13 – Climate Action

OUTPERFORM COMPETITORS WITH FEATURES

Air Purifier Features	Aither	 Sharp FP-J80Y-H	 Coway Breeze	BIONIQA
CO2 to O2 Converter	✓	✗	✗	✓
HEPA Filter (0.3 Mikron)	✓	✓	✓	✓
Gas Emission Indicator	CO2; CO; pm2.5; CH4; VOC	pm 2.5	pm 2.5	CO2; CO; pm 2.5
Adjustable Pollution Reduction	✓	✗	✗	✗
Performance	High Performance in high indoor Pollution	low performance in high Indoor pollution	low performance in high Indoor pollution	High performance in outdoor pollution
Places	Indoor Room	Indoor Room	Indoor Room	Outdoor

*source: official websites, e-commerce, and questionnaire at March 2023

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HEPA Filter (0.3 Mikron)	✓	✓	✓	✓
Gas Emission Indicator	✓	✗	✗	✓
Low Watt	✓	✓	✓	✗
Deodorizer filter	✓	✓	✓	✓
Low Price	✓	Rp. 4,000,000	Rp. 7,000,000	Rp. 35,000,000
Places	Indoor Room	Indoor Room	Indoor Room	Outdoor

*source: official websites, e-commerce, and questionnaire at March 2023

REVIEW USER



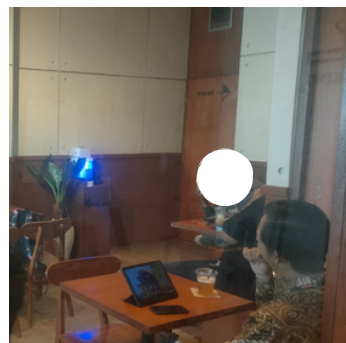
Pak Ijad, Owner Ijad Group

Udara di kantor saya tiba-tiba menjadi lebih segar setelah dipasang Aither.



Bu Yayuk

Saya biasanya **bersin-bersin tiap pagi**. tetapi sesudah menggunakan aither, **udara pagi di kamar segar**.



Fast Coffee

Asap rokok yang biasanya ada di ruangan, menjadi **lebih kurang** sesudah menggunakan aither.



Centralismo Cafe

Asap rokok yang biasanya tercium, sekarang sudah **jauh berkurang**. **pengunjung dan barista** semakin **nyaman**.



Kantor Pusat PLN Indonesia

Caffetaria terasa lebih segar. Asap tidak lagi nembus ke ruang AC



Pohon Kopi

udara sangat terasa lebih segar setelah menggunakan aither. Asapnya berkurang, mata tidak perih, dan bau tidak menyengat.



NutriHub Surabaya

udara terasa lebih bersih.



Bringin Cafe

Asap tidak pekat. udara ndak pengap, biasanya klo buka itu pengap tp sekarang ndak pengap

AITHER IS SUPPORTED BY



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ASIAN DEVELOPMENT BANK

ECOTHON



ChildFund
International



**YOUTH
ECONOMIC
LEADERSHIP
PROGRAM**



CESGS
Center for Environmental, Social, &
Governance Studies.



sevenpreneur

**Telkom
Indonesia**

KOPERNIK
SERVING THE LAST MILE



**LPDP
FEST**

COM&UP
GLOBAL STARTUP
FESTIVAL 2023

PERTAMUDA

VKIST
VIETNAM - KOREA INSTITUTE OF
SCIENCE AND TECHNOLOGY



Aither

FRESH AIR

*Biotechnology-Based
Modern Air Purifier*

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Science Technopark ITS 2nd Floor
Surabaya



**# Clean Air For
Everyone**