




***Developing
collaborative solutions
to end plastic pollution
& regenerate nature
in high-impact areas***

Nomad Plastic Ltd
Deck 2022

Strategic partner:





The plastic crisis reached the most pristine and remote places on earth, that are lacking infrastructures, solutions and incentives.

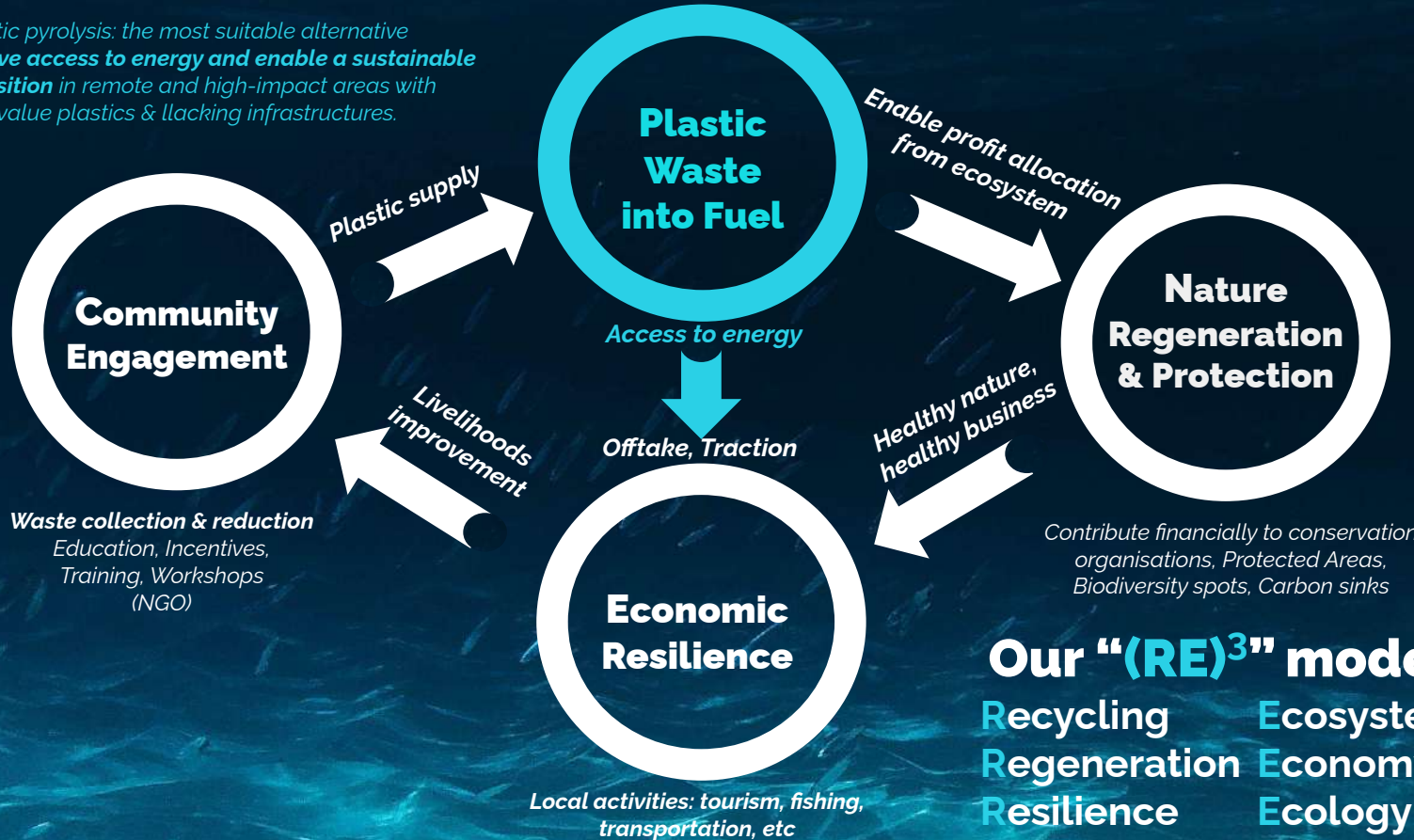
It causes **ecosystems destruction**,
affecting massively the rich
biodiversity and eventually
human livelihoods that strongly
depend on it.



**No nature = No business
= No livelihoods ...
Successful organisations of
tomorrow invest in nature!**

WE BRING CIRCULARITY WITHIN THE ECOSYSTEMS BY LEVERAGING PLASTIC WASTE TRANSFORMATION

Plastic pyrolysis: the most suitable alternative to **give access to energy and enable a sustainable transition** in remote and high-impact areas with low-value plastics & lacking infrastructures.



Our “(RE)³” model:
Recycling Ecosystem
Regeneration Economy
Resilience Ecology

OUR MODEL

Our objective is to build **50 projects by 2030** resulting in a yearly capacity of **10,000 tonnes of plastics collection and transformation** in the most endangered and valuable regions on Earth and contributing to the **rehabilitation of 100,000 ha of biodiversity hotspots.**

WHAT WE DO

We are an engineering consultancy company, established as a social business, developing a unique model to fight plastics & regenerate nature in the most threatened and valuable areas.

1

We advise organisations & entrepreneurs

Feasibility study, technical assessment - fit-for-purpose technology, business model

2

We integrate our model within the ecosystem

With our tech partners, we offer a range of solutions to transform plastics into fuel and structure a resilient and circular business model

3

We measure the impact & replicate

Catalyse project impact and resilience with plastic/carbon credits - reinvestment in nature through partners (e.g. Marine Protected Areas, Mangroves)

We bring projects together

with a model integrating the plastic supply, transformation and offtake to serve nature, businesses and people



Plastic supply

We coordinate with the local NGO/social business for access to plastic feedstock



Plastic transformation

We arrange the technical solution implementation & operation setup with tech partners



Product offtake

The fuel produced can be used for the client's operations, local needs (transportation, access to energy)

WE STUDY AND INTEGRATE OUR MODEL WITH ENTREPRENEURS, CORPORATES, NGOs



Our current portfolio of pyrolysis tech solutions:

From low-value plastics to fuel (diesel, gasoline, kerosene)

in partnership with:



Semi-industrial pyrolysis **by GTM** - 800kg/ daily batch- (200 tonnes/year)



Containerized pyrolysis **by Scarabtech** - 20-40kg/h

Production of fuel usable in factories, vehicles, and if no alternative into electricity or heat for remote and non-electrified places: remote places and islands, projects with significant plastic feedstock

Proven technical Feasibility - Cost-effective - High social impact - Access remote areas

A FIRST SOLUTION TO LOW-VALUE PLASTICS: PYROLYSIS BY GTM, OUR STRATEGIC PARTNER



Transform nearly all plastics, especially low-value ones into quality fuel

Only PET and PVC are excluded - No pretreatment required except for making sure the plastics are dry

Products:

Fuels (65%) → Diesel - Benzene - Kerosene - Naphtha
Syngas (20%) → reused to heat up the process
Carbon black (15%)

200+ tonnes
of plastic waste recycled per year

130,000 Liters
of fuel produced per year



A proven technical process

Condenser: cooling down oil gas and reforming liquids that will then be distilled into different fuel fractions



Pyrolysis reactor: heat up and mix the plastics, reaching 350°C - 6-7h process

Auto-feeder: press plastics inside the reactor

For each daily batch with the 1T system:

800 kg
of plastic waste



520 L
of fuel



A modular system that can be sized as a 5T or 10T system

SOLUTIONS FOR NATURE REGENERATION ON LAND AND IN THE OCEAN

We regenerate nature within our projects through the local partner directly or with the help of existing solution providers.



In place

Blue Finance - Co-manage Marine Protected Areas



In progress

WeForest - Restoring forests



In progress

Ecosystem Restoration Camps



In progress

Hommes et Terre - Agroforestry

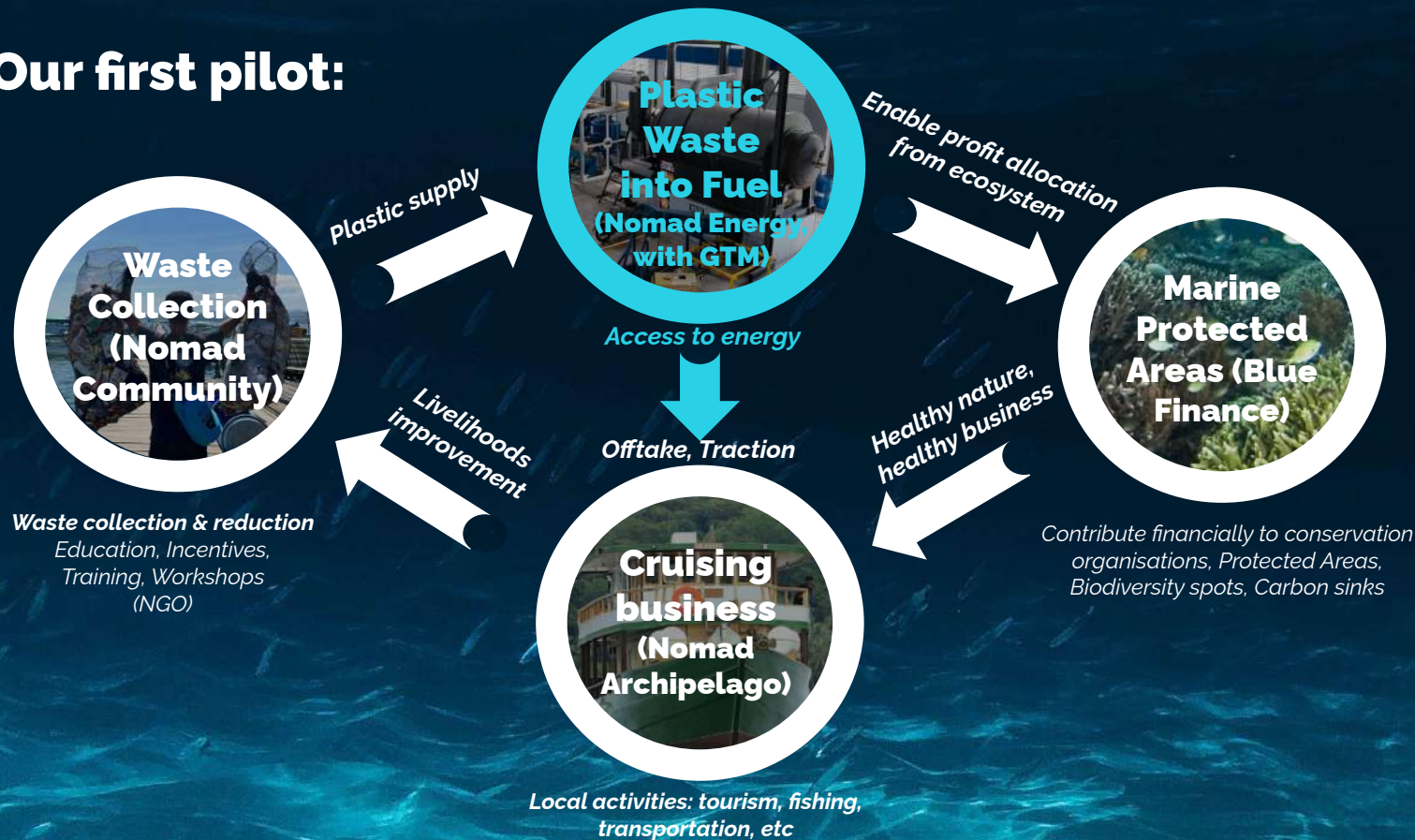


In progress

Coral Gardeners

A USE CASE TO ILLUSTRATE OUR MODEL: REGENERATIVE CRUISES IN INDONESIA

Our first pilot:



USE CASE

MORE ABOUT OUR FIRST PILOT: REGENERATIVE CRUISES IN INDONESIA

A first high-impact project: Waste-to-fuel station for cruising boats

July 2022 - Completed on-site feasibility study: visit GTM, technical partner, land, interest from local government, waste collection program

Sept. 2022 - Sign MoU GTM and Equity investment from Nomad Plastic Ltd into GTM

Oct. - Dec. 2022 → Commissioning full-scale distillation by GTM in Lombok - Fund raising project Labuan Bajo (Nomad Energy)

Mid 2023 - Expecting Waste-to-fuel station running in Labuan Bajo, powering our cruising boats

‘Combining community engagement, recycling infrastructure and market traction to drive change. No. More. Plastic. In. The. Sea!’



Community engagement & waste collection in villages



Waste transformation into fuel
- GTM pyrolysis technology



Fuel used to **power Nomad cruises** & local communities



Contribution to nature through 12
the allocation of profit shares & fees

OUR OUTREACH IS GROWING

PLASTIC ODYSSEY



Project Study for Veolia Hong Kong
Pyrolysis system connected to a leachate treatment on a former landfill

Blue finance

We are already advising projects across Asia and Africa and exploring the integration of our solutions within more projects.



Project Study for Blue Finance - Plastic Recycling in Marine Protected Area (Philippines)



Indonesia
Nomad Archipelago
Fueling cruising boats & contribute to MPAs



Pyrolysis Geo Trash Management (Indonesia)

Scarabtech (South Africa)

Nigeria
Corporate client
Fueling operation & restoring mangroves
Potential with WeForest



Togo
NGO Agbo-Zegue (IUCN member)
Fueling fishermen & conserving endangered biodiversity



Headquarters
1st pilot

Technical partners
Potential projects

RECYCLING IS NOT THE ULTIMATE SOLUTION



→ **WORKING TO TRANSITION TO RENEWABLE ENERGY AND SOBER ACTIVITIES**

Example from our experiment on local solar boats in Indonesia to break free from fuel-based livelihoods (work in progress)



The e-nemo, solar-powered boat

Our local and transition model:

We are focusing on **systems that are decentralized and as mobile as possible** so that they do not represent the ultimate solution. **Breaking free from single-use plastics and fossil fuels remains the long term target** and large industrial systems are a risk to maintain a business as usual.

We are dedicated to work with more partners to accelerate this **frugal generation!**

OUR ROADMAP - NEXT STEPS

FROM PILOT TO REPLICATION



Phase 0: Preparation

Self-funded so far: US\$1m

Strategic Partnership with Plastic Odyssey - technical expertise

Pilot Project Feasibility Study
Validate Pyrolysis tech & Implementation plan

Phase 1: Pilot

Loan US\$400k - 1st pilot
Immediate need



Equity investment (20%) in tech developer & pyrolysis operator - GTM
→ Complete GTM's full-scale pyrolysis plant in Lombok, Indonesia



Validate Expansion Business Model (post-pilot)
Partnership with ENEA Consulting & conglomerate

Pipeline projects for replication - traction in APAC, Africa

Phase 2: Expansion

Capital & Fund raising

Replication & Expansion

Raise capital - extend team
→ Accelerate with a community of interest & partners for pyrolysis manufacturing, projects financing, tech development

Investment pyrolysis center: US\$400k:
→ Integration of the pyrolysis unit in Labuan Bajo, Indonesia for our pilot
+ Study projects for replication

50 projects created
10,000 tonnes of plastic transformation capacity -
100,000 ha of nature regenerated
Indonesia, APAC, Africa



Structure 1st project - waste supply, Offtake fuel with cruising business

WE ARE CURRENTLY FUNDRAISING TO COMPLETE OUR FIRST PILOT AND UNLOCK THE EXPANSION PHASE

Looking for a concessional loan of US\$400,000 to set up our new waste-to-fuel station

US\$ 150,000
of Machinery

US\$ 140,000
of warehouse/infrastructure

US\$ 70,000
of Admin/Study/Setup

US\$ 40,000
of Cashflow to start

Interest rate to be negotiated - immediate need for funding

The loan can be addressed to Nomad Plastic Ltd (guarantee with boat as an asset - 2 boats for a total value of 1M\$)

You contribute to create a **significant impact**:

- **200 tonnes of plastic waste** collected and transformed into fuel **per year**,
- **US\$ 45,000** generated revenue for local communities,
- **140,000 L** of fuel (recycled instead of being extracted) - **maintain fuel cost at \$0.75-0.9**

On top of that, the Nomad cruises benefitting from this model contribute to:

- **US\$ 50,000** of revenue invested in MPA and biodiversity conservation **every year**
- **50,000+ ha** of coral reefs & **40+** species protected, **6,200** fishers supported

Achievements so far:

- We found and invested in a **technical partner and operator** with a pyrolysis **technology ready to replicate**
- The **waste collection plan is setup**
- The **land and agreement** with the government are secured
- The **offtake of the produced fuel is guaranteed** with the cruising activity and distribution agents



***Ready to
make more
value and
impact, by
addressing
plastic
pollution?***



CONTACT US!

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APPENDIX 1

MORE ABOUT NOMAD PLASTIC



AD HOC COMPLEMENTARY ENGAGEMENT

1 **Consultancy** on plastic waste management projects



2 **Investment in recycling tech developers** to widen the range of solutions we can offer and diversify revenue streams



3 **Development of financing solutions** for pyrolysis & recycling systems to enable a more systematic approach and avoid financing bottlenecks





OUR EXPERTISE IN PLASTIC WASTE MANAGEMENT PROJECT DEVELOPMENT

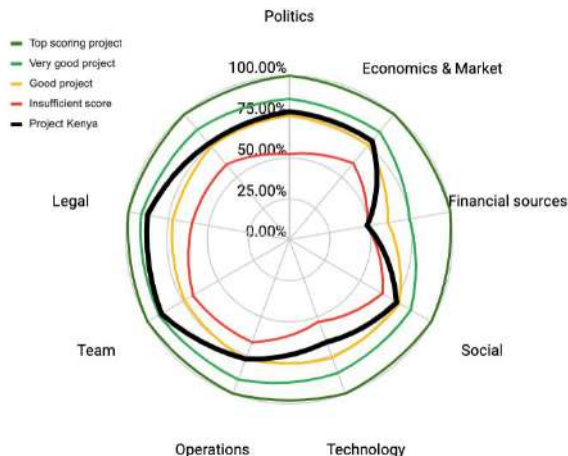


Development of unique tools and frameworks

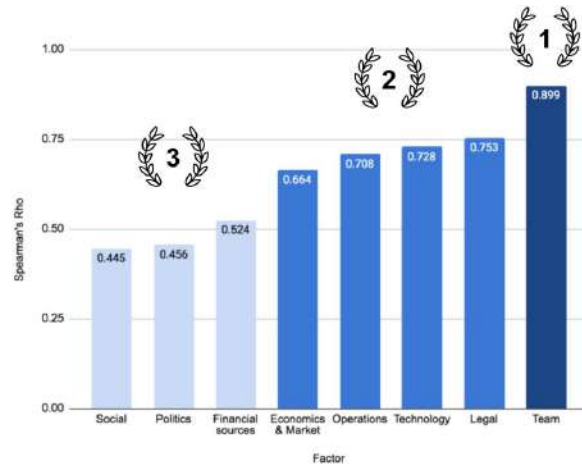
Thesis: ['An evidence-based model to design plastic waste management solutions for emerging and developing countries'](#) (J. Grassin, Aug. 2021 - at the Hong Kong University of Science and Technology)

Paper: ['Plastic Venture Builder \(PVB\): An empirically-derived assessment tool to support plastic waste management ventures in low-and-middle-income countries'](#) (J. Grassin, H. Dijkstra, Sept. 2022) - Presented at the 7th International Marine Debris Conference in Busan, Korea)

Recognition as one of the "Rising Stars/Class of 2022" by the U.S. trade journal, Plastic News - [full article](#)



Project Assessment - Scoring system based on 39 drivers separated in 8 categories (extract from the PVB, J. Grassin, H. Dijkstra)



Ranking of key factors of success for plastic waste management ventures (extract from the PVB, J. Grassin, H. Dijkstra)

Project analysis for the academic research in 50+ countries

WHERE WE COME FROM: NOMAD ARCHIPELAGO



A journey starting in 2018



The BUGIS in 2022

Starting from the love for travel & the ocean

March 2018: Definition of the concept - **Regenerative cruises** / Business development

Sept. 2018: Nomad Plastic Ltd creation in Hong Kong

Oct. 2018: Creation of the Indonesian branch → Nomad Archipelago
Starting construction 2 boats (Bajau & Bugis)

Anticipate on post covid wave to start cruises: end 2022/ early 2023

Explore with purpose

We created a unique concept of **regenerative cruises** bringing together **exploration**, well-being and **sustainability!**

We explore the **hidden gems of Indonesia**, discover a rich culture off the beaten tracks and built a **circular model bringing revenue** to **regenerate marine ecosystems** and **fight plastic pollution.**

‘Thriving to make the places we visit even more pristine than when we first found them’

Co-founders



Jean-Michel Chalant
Co-founder & Cruise Director



Pierre Rousseau
Co-founder & Executive chairman



Denis Lejeune
Co-founder & Head of operations

Team Leaders

ADDRESS THE PLASTIC PROBLEM WITH LOCALS: **NOMAD COMMUNITY**



Afa

Head of Sustainability, Project Manager



Pretty

Field Officer,

Community engagement expert

The story

2019 - Setup NGO in Labuan Bajo, Indonesia - start community engagement program, education, build a warehouse - host workshops, start waste collection program

2020 - Start waste collection program

2021 - Identify champions

2022 - Network expansion, waste collection in more remote islands and coastal villages by boats

Community engagement



 **Waste tracking with Empower.eco platform**

 **Incentives for communities**

 **Powered by plastic credits**

 **Waste transformation into fuel (Nomad Energy)**



Waste collection



OUR KEY FOCUS AND VISION

*Help organizations create value and reinvest in nature
by offering solutions to plastic pollution*



Targeting **remote areas and islands**, most threatened by plastic pollution



Projects are built with and for local **communities**



Measurable environmental, social and economic **impact**



Fit-for-purpose **technology** - optimized CAPEX - low tech vision and high safety/health standards



Transforming plastics into fuel (**pyrolysis**) is advised only in relevant contexts as a **transitional solution** and not as an ideal solution



Recycling operations are **designed to be profitable** - with a **social business** vision: investing in nature and impact expansion through biodiversity conservation projects, community engagement and network development



Collaboration with corporates on their business cases - dedication to solving plastic pollution, produce fuel or products for internal use or for partners - integration of plastic credits in relevant situations to increase the financial resilience of the model

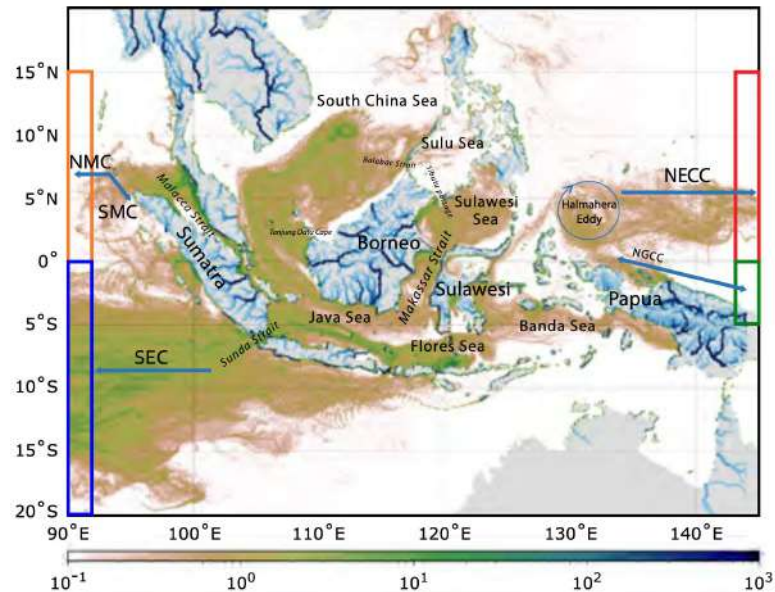


A strong collaboration with researchers in the region:

→ Project: Floating marine debris along Indonesian coasts, An atlas of strandings based on Lagrangian modelling (coordinated by our partner Dr. Christophe Maes)

→ Characterization and quantification of marine plastic debris and locations to confirm models and help implement solutions

Possibility to have 1-2 researchers onboard or train our team to collect data for research purpose



Number of particles using surface, tidal current and Stokes drift

PYROLYSIS IS NOT PERFECT

BUT THE BEST ALTERNATIVE IN OUR TARGETED LOCATIONS

 CO₂ emissions result from fuel use

 **BUT** low carbon emission for fuel production with pyrolysis compared to fossil fuel extraction

No better use for these low-value plastics in remote and island areas or where recycling infrastructure and markets are missing



→ not suitable for transformation into products or pellets because no local market,

→ too expensive to ship away to break even,

→ less polluting than incineration (waste-to-energy) or in cement factory

→ less externalities than the current situation which is open dumping in the ocean and burning



Pyrolysis brings a **market traction** for low-value materials that otherwise have none
It is a local and transition solution



APPENDIX 2
OUR MAIN PARTNERS

 PLASTIC
ODYSSEY

Our main partner





« During a stopover in Dakar in 2016, not only was I struck by the plastic pollution in cities, but I was impressed by the ingenuity and ubiquitous culture of plastic recycling. I kept telling myself that if plastic recycling technologies, held by only a few specialists today, were to be democratized, not only would this pollution disappear, but thousands of jobs would be created. »

Simon Bernard, CEO and Co-Founder of Plastic Odyssey

OUR GOAL

Enable people to earn a living from the waste that invades cities



Our mission

Act ashore before waste gets dumped into the Ocean.

How?

First, by « cleaning up the past » and promoting the recycling of plastic that has been produced. Second, by « building the future » and reducing the production of waste.

Our Vision

Identify where low-cost and easily replicable innovative solutions exist, to further develop their efficiency and distribute them in open-source across the world.

The lever

Turning waste into a valuable opportunity. Developing economic models of social entrepreneurship to create value and jobs while cleaning up the environment.

III. DIFFERENT STAGES OF THE EXPEDITION

2022 - 2025 - WORLD TOUR



Over 30 Main Stopovers Across 3 Continents



Aim of the Stopovers

- 1 Find successful existing models and document them.
- 2 Encourage the development of profitable recycling micro-factories.
- 3 Disseminate solutions for replication.

Course of The Expedition

Two Types of Stopovers

Long (📍)

Duration: 3 weeks

Actions: press conferences, official visits, demonstration workshops, field studies, collaboration with local waste management ecosystems...

Short (📍)

Duration: 3 to 7 days

Actions: press conference, waste collection on an island or in an isolated town to fill up the vessel with plastic and reach the next stopover.



3
years around the world

+30
main stopovers

40 000
40,000 nautical miles

II. OUR PROJECT THE VESSEL



**A Unique Tool to Experiment and Promote
Solutions in the Field**



CLEAN UP THE PAST
#recycle

BUILD THE FUTURE
#reduce

Technical Characteristics of the Vessel

Length: 128 feet
Width: 31 feet
Gross tonnage: 464 UMS
Engines: 736 kW

Crew: 7
Technical and scientific personnel: 7
Media team: 3
Guests: 2

PLASTIC RECYCLING INFRASTRUCTURE IS NOT OPTIMIZED THE PLASTIC RECYCLING ECOSYSTEM TODAY

Today, there is a huge gap between cost-intensive industrial plants and low-capacity isolated initiatives.



SMALL-SCALE INITIATIVES

- Creating **high added value** products
- Treating **low volumes** of plastic waste (*max. 20 tons per year*)
- **Limited impact** (no scalability)

GAP IN THE MARKET



**PLASTIC
ODYSSEY**

SEMI-INDUSTRIAL SOLUTIONS

- Creating **high added value** products
- Treating **moderate to high volumes** of plastic waste (*between 200 and 1,000 tons per year*)
- **Medium-high impact** (highly scalable)



INDUSTRIAL RECYCLING CENTERS

- Creating **low added value** products
- Treating **high volumes** of plastic waste (*over 2,000 tons per year*)
- **High impact** (highly scalable)

PLASTIC ODYSSEY SOLUTION

AN OPTIMIZED SEMI-INDUSTRIAL SCALE

Suitable for the most difficult regions (island environments, peri-urban areas, etc.)



ECONOMIC IMPACT

- Low CAPEX : **40 - 100K€**
- ROI : **3-4 years**

ENVIRONMENTAL IMPACT

- Waste treatment capacity : **200 tonnes per year**
- **Local** waste management solutions

SOCIAL IMPACT

- **10-30 jobs** created
- **Strong local value creation** (products with high added value)



Blue finance

Managing Marine Protected Areas
for marine biodiversity & local livelihoods

—

**18 000 Marine
Protected Areas
(MPAs) around the
world to conserve
some of the most
biodiverse marine
sites**

THE PROBLEM

70%
UNDERFUNDED

Your support will contribute to the following impacts in Banggai Dalaka

2

Marine Parks

effectively managed &
self-financed
by 2030

>40

Species

protected (including
endangered
sharks, turtles & corals)

1m

Tons CO2e

avoided emissions
(Verra certified Voluntary
Carbon Units, 20y)

>500,000

ha of coral reefs

protected from threats,
including unsustainable
fishing

>20

Enterprises

created or directly
supported

>100,000

ha of Mangroves

protected from
deforestation
and degradation

40

MPA Staff

supported

6,200

Artisanal Fishers

livelihoods improved

1 NO
POVERTY



8 DECENT WORK AND
ECONOMIC GROWTH



13 CLIMATE
ACTION



14 LIFE BELOW
WATER



17 PARTNERSHIPS
FOR THE GOALS

