

Waste Plastic to New Plastic

Company Presentation
and Business Cases



Waste Plastic to New Plastic

Plastfree Ocean is a Danish company based in Malaga and Copenhagen.

Our mission is to pick up plastic from the ocean, in rivers, at beaches and nearby places. It is very important to us that plastic we are picking up is recycled instead of incinerated or placed in landfills.

We are using the pyrolysis technology to get plastic recycled.



Waste Plastic to New Plastic

Every day, in average, over 820,000 tons of plastic are produced worldwide. Today, the oceans contains one ton of plastic for every five tons of fish.

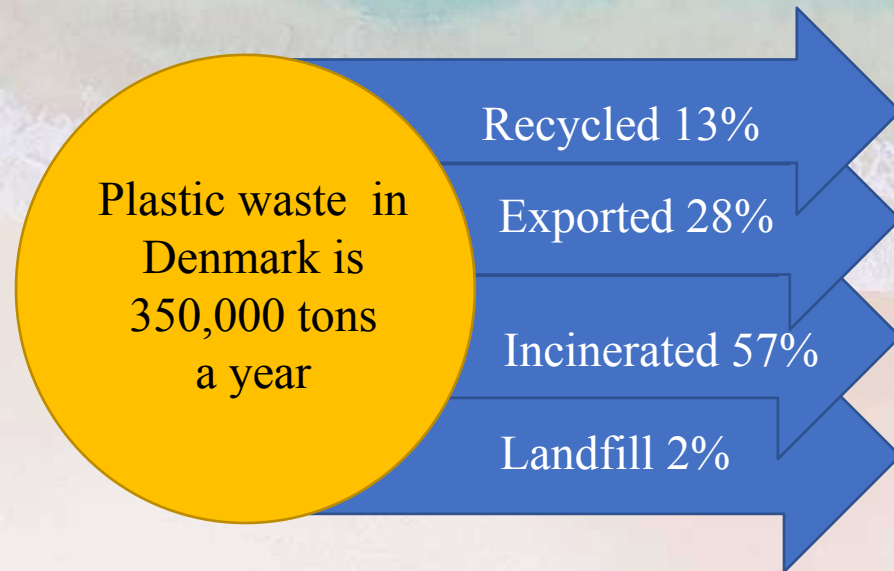
Each year, approx. 8 million tons of plastic ends in the world oceans. That's the equivalent to a fully loaded truck every minute - WWF



Waste Plastic to New Plastic

Most of the Danish plastic waste is incinerated – leaving significant potential for increased recycling.

SOURCE: Ministry of Environment and Food “Statistik for emballageforsyning og indsamling af affald 2016” (2018)



This sample is for Denmark, the situation is the same worldwide.

There is an increasing need for recycling of plastic waste.



Waste Plastic to New Plastic

Our business is about developing, building and operating plants which can process non-recyclable waste plastic into Recycled Carbon Fuel, which is chemical recycled into new chemicals and new plastics.



Waste Plastic to New Plastic

Our offerings are based on Patpert's PATENTED TECHNOLOGY to process Plastic Waste into Carbon fuel. The technology is named as **GASOLYSISTM**. **GASOLYSISTM** is thermal cracking of Polymers.

We have developed 3 different types of offerings:

- 1. A mobile and flexible solution, reactors are located close to the sea, rivers or harbours
- 2. A land-based plant located close to continue streams of waste plastic from e.g. households.
- 3. Consulting and Services



Waste Plastic to New Plastic

Plastic suitable for mechanical recycling should be recycled and not used in our solutions!

We aim for the plastic that is **NON-RECYCLABLE**. It's the contaminated plastic you typically find in Household Waste or in Ocean Plastic. Today there is no environmentally friendly way to dispose this types of plastic. It ends up in landfills or gets incinerated.

We are able to process waste plastic and turn it into chemicals



Waste Plastic to New Plastic

Besides producing Carbon Fuel our plants also produces gas. The gas is recycled and used for operation of the plant. Besides using a small amount of gas for start-up the plant is operating without external supply of energy.



Waste Plastic to New Plastic

We reduce the need for Virgin Oil



Virgin oil goes through a long and expensive process before it ends up as diesel oil at the local gas station. It has a high environmental impact.

- Chemical recycled oil is of a far better quality than virgin oil.



Waste Plastic to New Plastic

Proven technology

Thermal cracking of Polymers is **not** wishful thinking!

Our technology works. Plants provided by our partners are in operation at commercial scale for customers like Pepsico and Nestlé. There is +25 plants operational worldwide.

Our partners test plant in Holland has done numerous tests and we have test reports on oil samples, on emissions, on the gas and on the char.



Waste Plastic to New Plastic

Manufacturers

There are several manufacturers at the market. QuantaFuel, MAKEEN and BlueAlp are some of them.

Our 20 TONS plant is able to process process 9,000 metric tons of plastic a year. This is 3% out of the total amount of non-recycled waste plastic generated in one year.

None of our competitors have the same amount of operational plants than our supplier has, and none have the same track record of years in operation.



Waste Plastic to New Plastic

New Chemicals

The carbon fuel produced in our plants is refined into new chemicals e.g. naphtha. Naphtha is a core component in new virgin plastic.

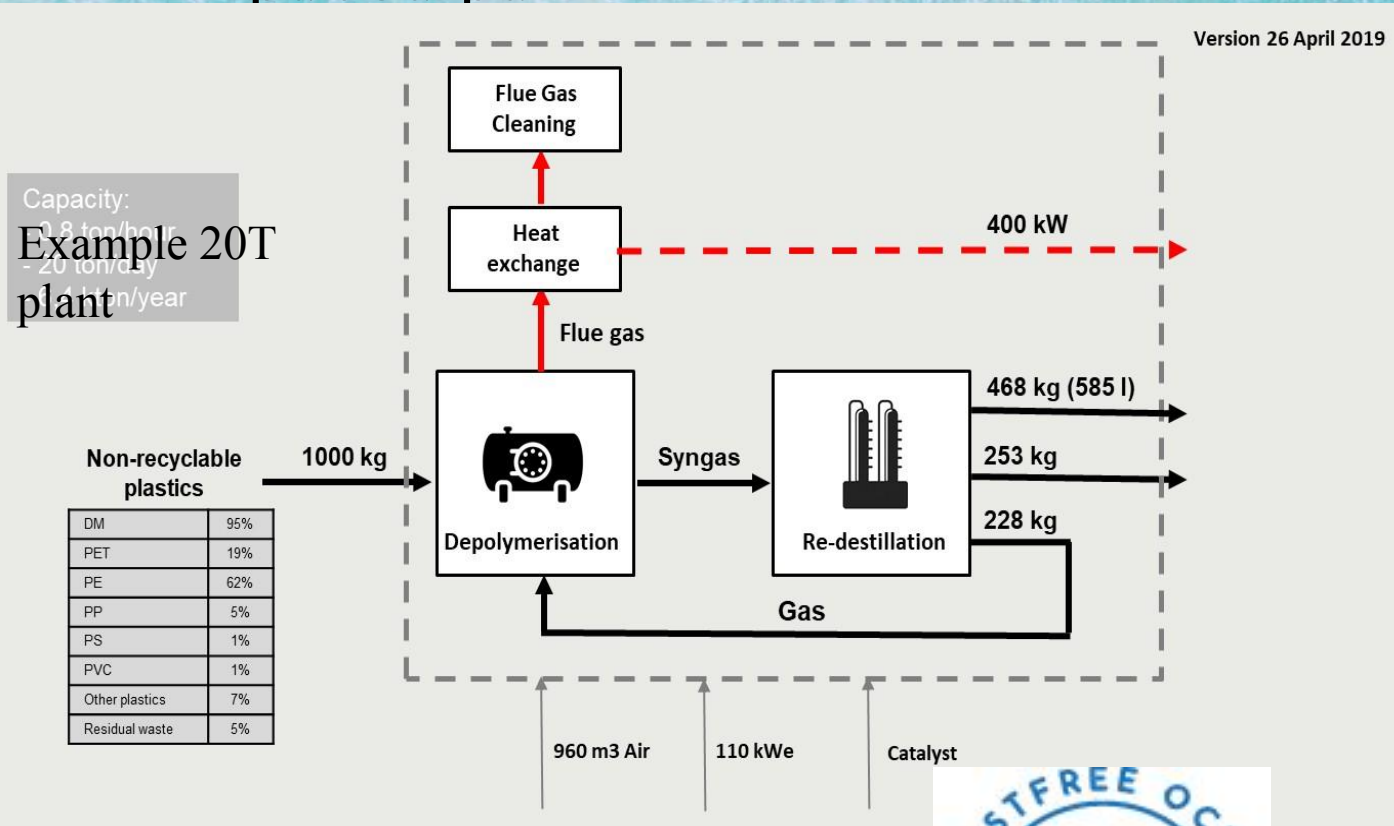
The amount of oil which is refined into new chemicals is considered as a renewable and will count positively on the Environmental Reports.

Waste plastic sold to energy production doesn't count positively in the environmental reporting.



Waste Plastic to New Plastic

Plant input/output



Waste Plastic to New Plastic

Our mobile solution

Flexible located Plants (Output on Feed Plastic Waste Qty: 55% Oil, 20% Gas & 25% Carbon)

Models	PTSPL-WP2F-B-50	PTSPL-WP2F-B-100	PTSPL-WP2F-B-200
Capacity	50 Kg Plastic Waste per day	100 Kg Plastic Waste per day	200 Kg Plastic Waste per day
Space Requirement	3 Mtrs X 3 Mtrs X 6 Mtrs	8 Mtrs X 8 Mtrs X 10 Mtrs	10 Mtrs X 10 Mtrs X 12 Mtrs
Electricity	20 HP, 3 Phase	30 HP, 3 Phase	50 HP, 3 Phase



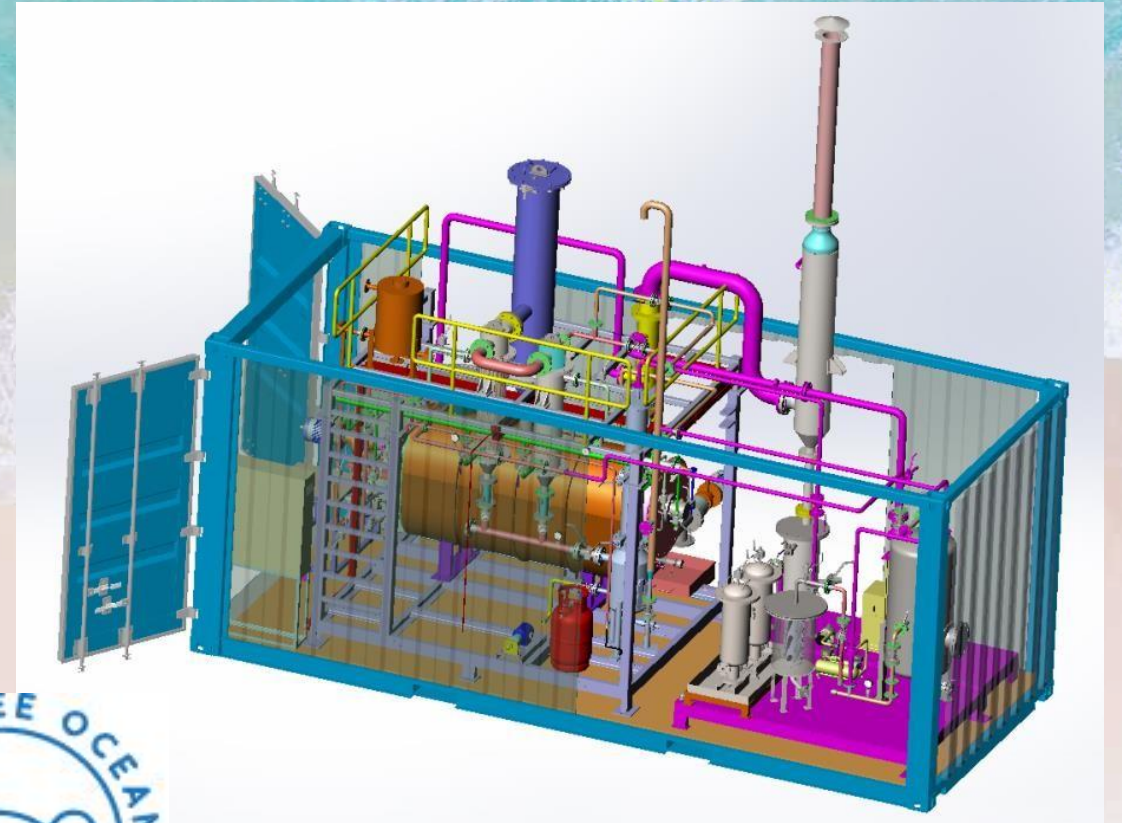
Waste Plastic to New Plastic

Container Solution

Model PTSPL-WP2F-B-50

- 1) 200 kg/day in a 20ft. container
- 2) 400kg/day in a 40ft. containers.

It's a flexible solution where the container can be placed next to the waste plastic and process it directly at that location.



Waste Plastic to New Plastic

Land-based plants

Continuous Plants (Output on Feed Plastic Waste Qty: 50% Oil, 25% Gas & 25% Carbon)

Models	PTSPL-WP2F-C-2500	PTSPL-WP2F-C-5000	PTSPL-WP2F-C-10000
Capacity	2500 Kg Plastic Waste per day	5000 Kg Plastic Waste per day	10000 Kg Plastic Waste per day
Area Required	42 Mtrs L X 30 Mtrs W X 20 Mtrs L	55 Mtrs L X 35 Mtrs W X 20 Mtrs H	110 Mtrs L X 70 Mtrs W X 20 Mtrs H
Electricity	50 HP, 3 Phase	150 HP, 3 Phase	300 HP, 3 Phase



Waste Plastic to New Plastic

About us

Plastfree Ocean was founded in 2019
by:

Bettina Lyhne

Phone: +45 28566466

Email: bl@plastfreeocean.com

Martin Brasch

Phone: +45 61409882/ +34 605563313

Email: mb@plastfreeocean.com

Address: Calle Dugue de Rivas 28, 59013
Malaga, Spain VAT: 41195029

