

A PIONEER WITHIN CHEMICAL RECYCLING









PLASTIC WASTE IS A MAJOR PROBLEM GLOBALLY



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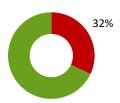
Quantafuel is a key enabler of a circular plastic economy

Plastic waste provides a significant global problem...

32% of all plastic packaging ends up in nature...







... and only 14% of plastic packaging is recycled







World's oceans will contain more plastic than fish in 2050





>8 million tonnes

of plastic ends up in the ocean annually

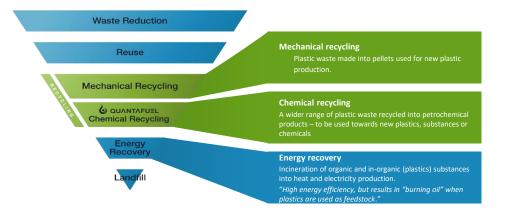
Government, businesses and consumers are driving the increased focus on plastic waste recycling





EU targets for plastic recycling
2025: 50%
2030: 55%

...that Quantafuel handles with chemical recycling



From non-recyclable plastic waste...

... to recycled liquids for the petrochemical industry









A FIRM AND SUPPORTIVE POLICY TREND



EU regulation requires investment in new plastic recycling technology



> 2020: EU Green Deal

Enormous reform program to support circular economy and green industry



▶ 2021: Plastic tax

EUR 0.80 tax per kg nonrecycled plastic



2021: Stricter waste shipment rules

Means EU countries must build capacity to handle their own waste



2021/22: Requirements on recycled plastic content

 Will be introduced for packaging, construction materials and vehicles



▶ 2025: 50% recycling of plastic packaging

Increases to 55% in 2025. Today's actual plastic recycling level is 10-20%



▶ 2030: 55% GHG reduction

► Target is codified in law and will trigger strong measures across industries

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Two recycling plants with clear plans for further expansion



The Skive plant (Denmark)





EU PLASTIC MARKET GOING FROM WASTE EXPORTER TO RECYCLER



The move from world's biggest waste exporter to recycler

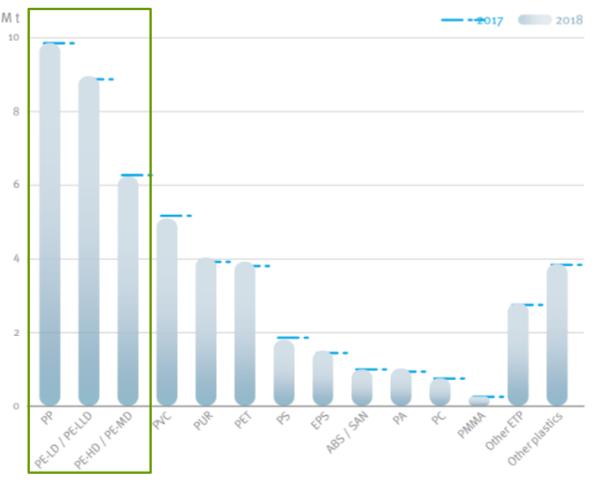
Quantafuel primary feedstock ≈ 50% EU polymer

- 29.1 million tonnes plastic waste annually
 - >60% is plastic packaging

demand

40% decrease in plastic waste export (2016 – 2018)

EU Annual Polymer Demand



Sources: Plastic Europe: Plastics - the Facts 2019

TAKING CONTROL OF THE FEEDSTOCK VALUE CHAIN



- ✓ Feedstock project with Grønt Punkt & Geminor yields invaluable experience
- ✓ Quality control drastically reduces risk of unwanted material e.g. PVC, Lithium batteries
- ✓ High potential in receiving high gate fee levels
- ✓ Compliance with EU regulations through tracking the entire valuechain



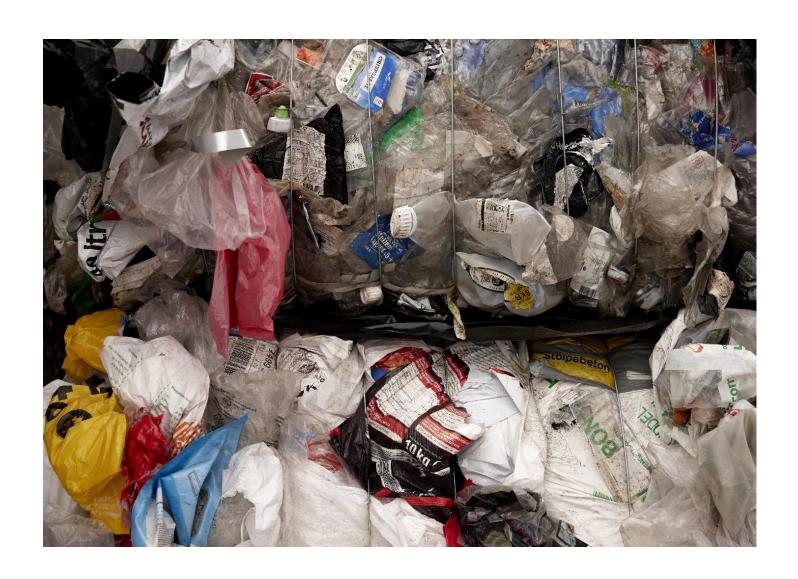




RECYCLING OF PLASTIC WASTE IS CHALLENGING

Mechanical recycling has limitations – pyrolysis is not enough





Mechanical recycling

- ✓ Mechanical recycling has limitations and is energy intensive
- ✓ Mechanical recycling is mostly downcycling to lower grade products

Pyrolysis of plastic

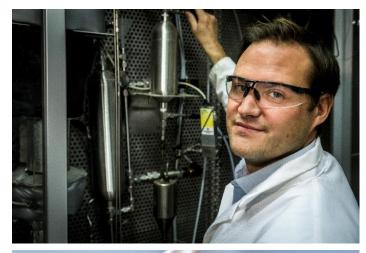
- ✓ Has existed for a long time
- ✓ Produces an impurified oil and waxes
- ✓ Needs further upgrading that is energy demanding

UNIQUE SOLUTION TO PURIFY AND UPGRADE

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Quantafuel's technology starts where others stops.....

- ✓ Removes ash particles, oxygen, nitrogen, chlorine and sulphur
- ✓ Changes the molecular structure
- ✓ Produces 800 kg of products from 1 ton of plastic with 90% CO2 reduction
- ✓ Uses the light fractions to run the reactors
- ✓ Ash fraction goes to energy production

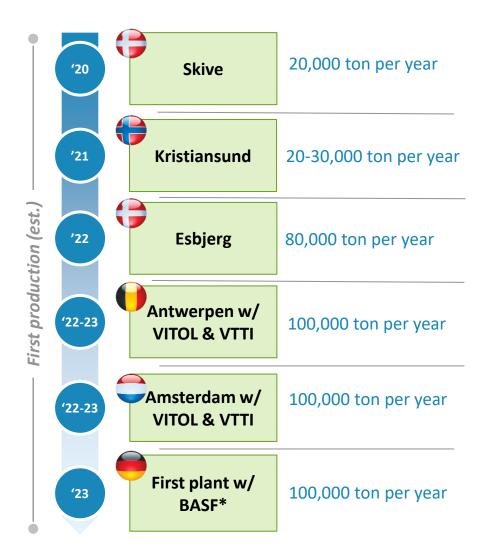




PRODUCTION PLANTS AND PIPELINE PROJECTS



Several additional production plants planned with existing partners









* QFUEL indication/estimate

OUR PRODUCTS ARE GREEN, OUR PLANTS WILL BE TOO

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Sustainability at the core in early stages of planning





- We are aiming for DGNB Gold certification
- Sustainable and recycled materials
- Energy efficient solutions
- Green areas
- Open facilities where visitors can engage



CAN RECYCLING COMPETE WITH OIL AND GAS?

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Or is big always beautiful?





Raw material: *Income* of up to USD 80 per ton

Process: Fully-automated small scale

Market prices: USD 300-700 premium to

commodity prices

Raw material: Cost of USD 300 per ton

Process: Efficient large-scale model

Market prices: Commodity prices

Additional margin: USD 600-1,000 per ton

THIS WILL BECOME A MULTI-BILLION DOLLAR INDUSTRY

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Why can it not be Quantafuel that becomes the market leader?





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