

Quantafuel is a Norwegian based technology company, currently building Europe's first full scale process plant in the heart of Jutland Denmark.

Using groundbreaking patented processes, Quantafuel upcycles non-recyclable plastic waste resources into valuable low carbon transportation fuel.



## COMMERCIAL PRODUCTION

Quantafuel's fist commercial processing plant is currently under construction in Skive, first oil expected Q2 2019. Quantafuel will together with local and international companies form a green energy cluster called GreenLab, a unique industrial park designed for business working actively with integrated renewable energy, energy storage and resource efficiency.



## LCA

Quantafuels highly energy efficient production process utilizes plastic waste that otherwise would have been incinerated. Theresult is a well to wheel GHG savings ofup to 90% compared to normal fossil fuels, by RSB Advanced Fuel certification standards. This means Quantafuel's Skive plant will save approximately 50,000 tonnes CO² per year, equivalent to removing more than 10,000 passenger vehicles from European roads for 1 year.



## PLASTIC WASTE CONSUMPTION

Quantafuel's processing plant will convert 20,000 tonnes of non-recycle plastic waste per annum. The modular plant design enables future expansion, whereas the plant can tripple its capacity to 60,000 tonnes per annum. Future prospected Quantafuel plants in Northwestern Europe, has the potential to convert as much as 500,000 tonnes of non-recycle plastic waste per annum, within the next three to five years.



## **PRODUCTS**

Quantafuel's Skive plant will produce approx 14,000 mt low carbon transportation fuel per year, consisting primarily of high quality diesel. The commercialisation of the products will be done through the global energy trading company Vitol.

| LCA OVERVIEW  | TYPICAL GHG <sup>1</sup> SAVINGS | DEFAULT GHG <sup>2</sup> SAVINGS |
|---|----------------------------------|----------------------------------|
| Rape seed biodiesel   | 45%                              | 38%                              |
| Soy bean biodiesel  | 40%                              | 31%                              |
| Sun flower biodiesel  | 58%                              | 51%                              |
| Palm oil biodiesel (Process not specified)                                  | 36%                              | 19%                              |
| Palm oil biodiesel (process with methane capture at mill)                   | 62%                              | 56%                              |
| Corn ethanol, Community produced (natural gas as process fuel in CHP plant) | 56%                              | 49%                              |
| Sugar beet ethanol  | 61%                              | 52%                              |
| Sugar cane ethanol  | 71%                              | 71%                              |
| Waste vegetable or animal oil biodiesel                                     | 88%                              | 83%                              |
| Estimated Quantafuel PtL low carbon diesel                                  | 90%                              | 90%                              |

Source: EU Official Journal RED-Directive 2009/28/EC (1) 'Typical' implies an estimate of the representative GHG emission savings for a particular biofuel production pathway. (2) 'Default' implies a value derived from a typical value by the application of predetermined factors and that may, in circumstances specified in RED, be used in place of an actual value