A different kind of refining company –

World’s leading supplier of renewable diesel

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Neste Oil in brief

A refining and marketing company focused on premium-quality traffic fuels

Refining capacity: 15 million t/a of petroleum products and 2 million t/a of renewable diesel

Net sales: € 17.5 billion (2013)

Operations in 15 countries; employs approx. 5,000 people

Listed on the Helsinki Stock Exchange

Largest owner: Finnish State (50.1%)
Being innovative drives our leadership position

- 1,000 professionals in R&D and engineering
- Creating unique technological innovations
- Expanding raw material base
- Several new products since 2008
### NEXBTL renewable fuels – fully compatible with fossil diesel

<table>
<thead>
<tr>
<th>Raw material</th>
<th>Biodiesel (FAME / RME)</th>
<th>Fossil diesel</th>
<th>Renewable diesel (HVO) e.g. NEXBTL</th>
<th>Fischer-Tropsch (BTL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetable oils &amp; animal fats (mainly rapeseed oil)</td>
<td>Crude oil (mineral oil)</td>
<td>Flexible mix of raw materials (vegetable oils &amp; waste fats)</td>
<td>Biomass</td>
<td></td>
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<tr>
<td>Technology</td>
<td>Esterification</td>
<td>Traditional refining</td>
<td>Hydrotreating</td>
<td>Gasification &amp; Fischer-Tropsch</td>
</tr>
<tr>
<td>End product</td>
<td>Ester-based, conventional biodiesel</td>
<td>Hydrocarbon (gasoline, jet fuel, diesel)</td>
<td>Bio-based hydrocarbon (renewable diesel, jet fuel, bionaphta, biopropane)</td>
<td>Bio-based hydrocarbon (renewable gasoline, jet fuel, diesel)</td>
</tr>
<tr>
<td>Chemical composition</td>
<td>$O \quad O_{\text{II}} \quad H_3C-O-C-R$</td>
<td>$C_nH_{2n+2}$ + aromatics</td>
<td>$C_nH_{2n+2}$</td>
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</tr>
</tbody>
</table>

FAME = Fatty Acid Methyl Ester, conventional biodiesel  
RME = Rapeseed Methyl Ester, conventional biodiesel  
HVO = Hydrotreated Vegetable Oil, advanced biofuel i.e. renewable fuel  
BTL = Biomass to Liquid
Leadership in Neste Oil

• Since 2007, the renewable business has grown from 0 in earnings and revenue to **earnings of 273 m€ and revenues of 2,5 bn € in 2013**

• Customers are choosing NEXBTL due to its superior quality and flexibility using it as drop in fuel

• Strong market position in several European countries and in North America
We aim for continuous development and improvement – flexibility is the key word

- Feedstock flexibility
- Productivity growth
- Product value maximization
Range of renewable raw materials used commercially is growing

- Waste animal fat from the food processing industry
- Waste fat from the fish processing industry
- Vegetable oil residues (stearin, PFAD and spent bleaching oil)
- Technical corn oil
- Used cooking oil
- Tall oil pitch
- Crude palm oil
- Camelina oil
- Jatropha oil
- Soybean oil
- Rapeseed oil

- Next generation feedstock to include waste streams from forestry and agricultural activities, as well as algae oil
- Neste Oil also procures bio-based ethanol from the global market to be used as a bio-component in 95 E10 and 98 E5 gasoline.
Use of waste/residual feedstock is increasing
Premium-quality renewable solutions –
a gateway to partnership in biobased chemicals and plastics

- NEXBTL renewable diesel
- NEXBTL renewable aviation fuel
- NEXBTL renewable naphtha and propane
- NEXBTL renewable isoalkane
- NEXBTL distillates, sustainable/renewable plastics
Thank you.

Lars Peter Lindfors, SVP Technology

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