Creating responsible choices every day

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Neste Renewable Products

Cleaner fuels for Road Transportation

Low-sulphur for Maritime

Renewable solutions for Chemical Application

Renewable Solutions for Aviation
“Decarbonizing” Society
Increasing efficiency and switching to low-carbon solutions

Aviation
Strong growth continues. Renewable fuels currently the only viable alternative to jet fuel.

Public transport
A variety of solutions are needed. Renewable fuel, biogas, and electrification are viable options.

Everyday plastics and chemicals
Wherever plastics are used, renewable solutions may replace oil as the raw material. The same goes for paints, solvents, and a variety of chemicals.

Passenger cars
Renewable fuels are currently most cost-efficient for decarbonization. Electric vehicles increasingly contribute over time.

Marine use
Low-sulfur fuels and LNG help reduce sulfur and nitrogen emissions. Decarbonization in long-haul operations requires renewable fuels.

Heavy duty
Renewable diesel with high energy density is the best alternative for conventional diesel in long-haul transport.
Strong pull created by progressive consumers and companies

Switched from conventional diesel to renewable

Strategy to substantially reduce their carbon emissions

Introducing 1% airport-wide supply of Neste MY Renewable Jet Fuel

Switched from conventional diesel to Neste MY Renewable Diesel

100% of plastics in home furnishes renewable or recycled by 2020

Switched from conventional diesel to Neste MY Renewable Diesel

Strive to substitute top crude oil-derived raw materials

Carbon neutral - Switched from regular diesel to Neste MY Renewable Diesel

40% less GHG emissions per sales by 2020

Switched from conventional diesel to renewable

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Neste’s leading role in decarbonizing society

**Have no fear, embrace change**
We are willing to cannibalize our fossil fuel business to decarbonise the world

**Remove waste from the world**
We are driving circular economy by turning waste and residues into renewable fuels and materials

**Create responsible choices**
We offer sustainable solutions that make sense to people and society
This is an opportunity for all of us.

Sustainability-minded companies and stakeholders will lead change across the industry by joining forces.
Despite numerous test programs and commercial launch, widespread continuous use of RJF has not been achieved.

- Single test flights
- Several initiatives on commercial passenger flights (1000+)
- Low % available at hydrant
- Widespread continuous use
Neste cooperation with leading aviation brands

2011
Lufthansa
HEFA used in 1,187 scheduled flights

2014
Boeing
Testing begins on the HFP HEFA for a new RJF specification

2016
KLM, SAS
Oslo Airport Gardermoen is the world's first airport to offer HEFA to all flights (ITAKA)

2017
Geneve Aeroport
1 % blend of renewable jet fuel starting late 2018

2017
American Airlines
Memorandum of Understanding on Renewable Jet Fuel
Waste and residue usage continues to increase

Focus on non-cultivated materials:
- Share close to 80%
- R&D more than 40 MEUR/a
- Capability to use entirely waste and residues reached in 2015
- Development work on lower quality materials ongoing
Clear roadmap in place to tap into wastes and residues

We aim to have access to up to 20% of the available waste and residue streams by 2021

- Developing traceability and certification for residues by 2020
- Opening up new feedstock markets in South America and China
- Developing platforms for feedstock trading operations
- Investing in new pre-treatment technology
Enabler: Creating our path with Research and Development

- 40 M EUR annual R&D investment.
- 70% into renewable raw material research

- We have 1,000 dedicated experts working every day to find responsible choices
All renewable raw materials sustainably produced

- All of the renewable raw materials used by Neste are traced back to the plantations or production plants.
- Our contracts include strict sustainability requirements, e.g. human rights, forests, carbon-rich areas covered.
- Taking leadership in sustainability practices is essential to growing acceptability of renewable feedstocks.
Global, regional, national and airline certification requirements coexisting and contradicting

**SUSTAINABILITY REQUIREMENTS**

- ICAO
- Regional, national, state level
- Airline

**PENETRATING PATHWAYS**

**COMMENTS**

- De-facto standard but no or low price contribution
- Needed for price contribution through on-road mandate fulfilment
- Needed for branding?

Will anything pass multiple filters? Harmonization ??
“The best way to predict the future, is to create it”