



Pathways to Fossil Free Transportation

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Neste in brief

Founded in
1948
to secure oil supply
for the state of
Finland

World's
#1
producer of Renewable
Diesel & Jet Fuel from
waste and residue

One of the world's
most sustainable
companies by the
Corporate Knights
Global 100 Index

In 2020,
our renewable
products helped our
customers reduce
GHG emissions by

10 Mt

70%
of R&D budget
invested in
researching and
testing future raw
materials

Renewable
products production
capacity
3.2 →
5.5 Mt/a
in 2023

A strong global mindset with key markets in Europe and North America

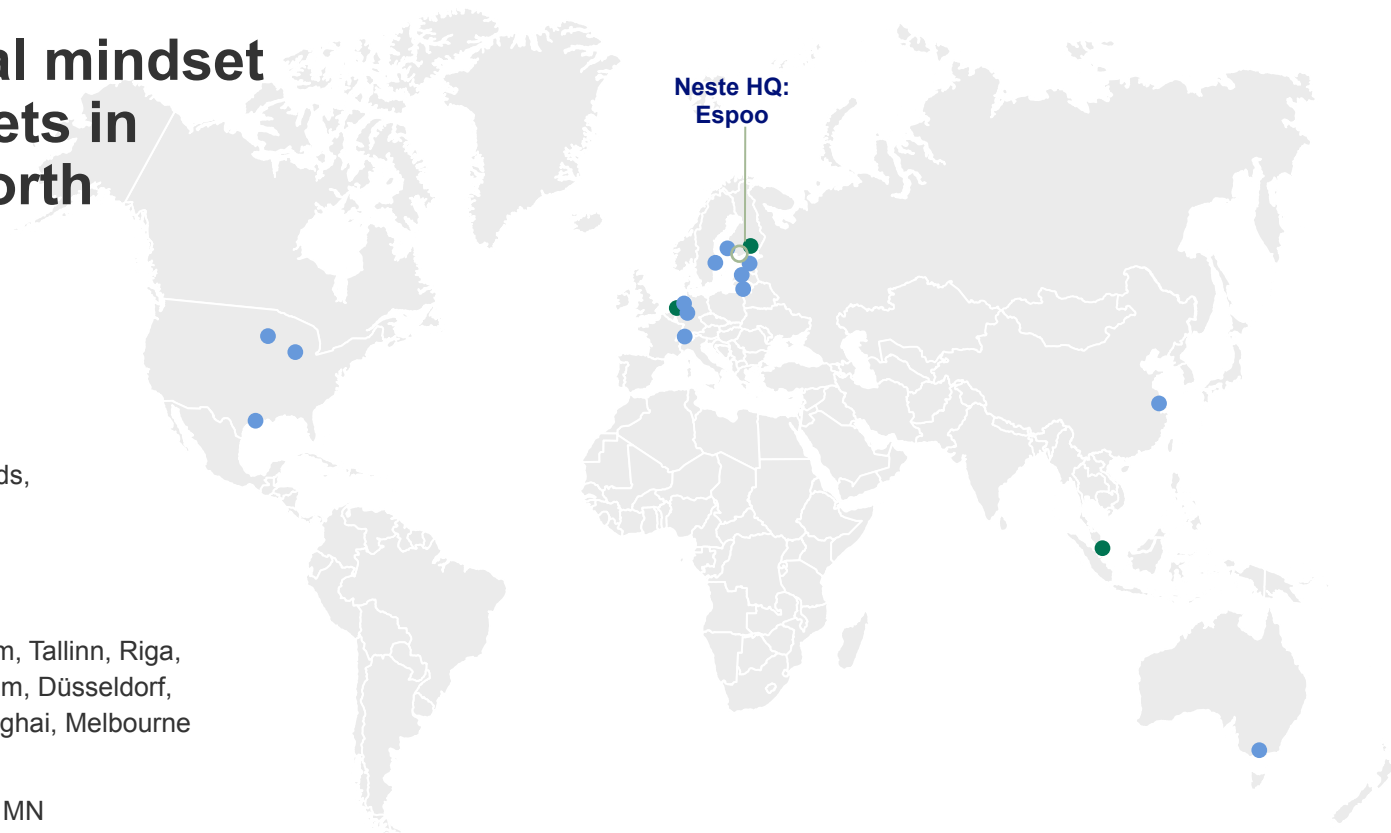
Production:

Porvoo, Finland,
Rotterdam, The Netherlands,
Singapore

Other locations:

Espoo, Naantali, Stockholm, Tallinn, Riga,
Vilnius, Geneva, Amsterdam, Düsseldorf,
Houston, Singapore, Shanghai, Melbourne

Mahoney - Joliet, IL
Agri Trading - Hutchinson, MN

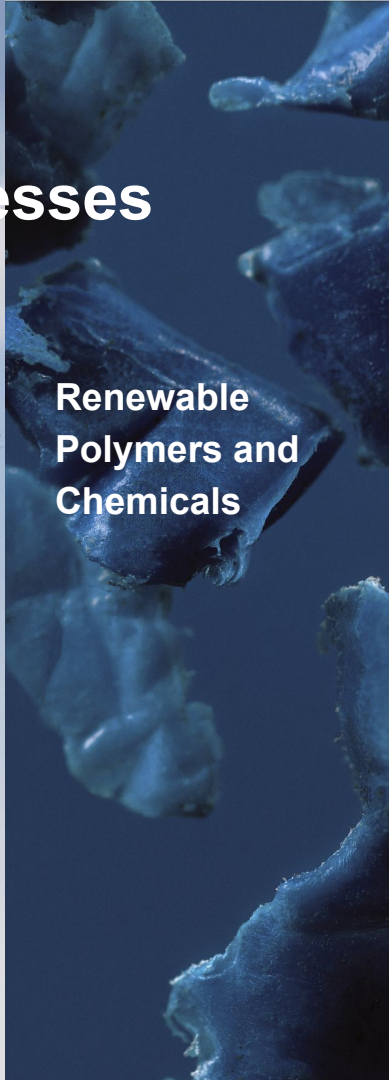


Our businesses

Renewable
Aviation



Renewable
Polymers and
Chemicals



Renewable
Road
Transportation



Oil
Products



Marketing &
Services



Our strategic themes

Grow renewable and circular solutions

Get ready for the future

Boost competitiveness and transformation

Renewable Aviation

Renewable
Polymers and
Chemicals

Renewable Road
Transportation

Our transformation

From a regional oil refiner to becoming a global leader in renewable and circular solutions.

Neste is founded to secure Finland's oil supply

1948

1996
Experimenting to develop 100% renewable diesel

2000s

2007-2011
Investing in renewable diesel production in Porvoo, Singapore and Rotterdam

2020
Renewable Products make up 94% of Neste's profits*

2020

2025

Committing to support carbon neutral growth in aviation

2030

Processing more than 1 M tons of waste plastics annually from 2030 onwards

2035

Helping our customers reduce their GHG emissions by up to 20 M tons annually

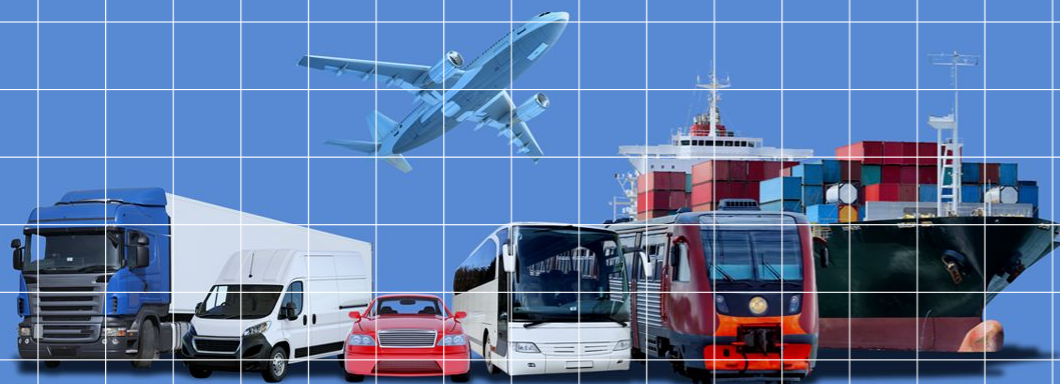
Reaching carbon neutral production by 2035

2040

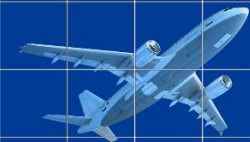
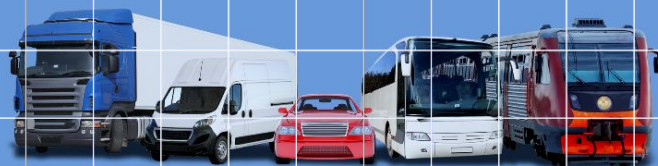
Reducing the use phase emission intensity of sold products by 50% compared to 2020 levels, and reducing emissions across our value chain

* Comparable operating profit

**Global oil consumption today
4,525 Mtoe/a (2019)**



**Global oil demand
for transport
2,668 Mtoe/a (2019)**



**Global marine fuel demand
267 Mtoe/a (2019)**

**Global jet fuel demand
320 Mtoe/a (2019)**

**Global fuel demand for
road transport
2081 Mtoe/a (2019)**



2020

10 million electric vehicles
6 Mtoe/a oil displacement



2040

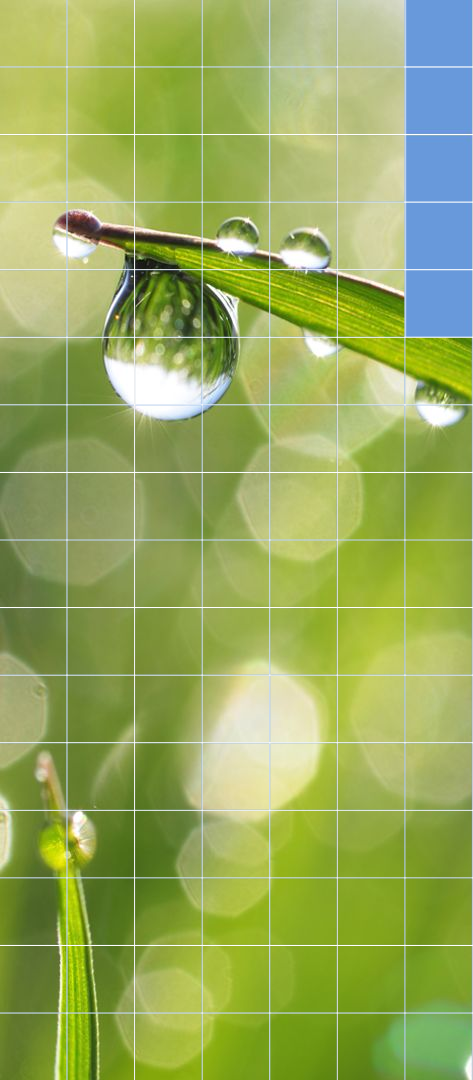
600 million electric vehicles
360 Mtoe/a oil displacement

Source: Neste based on IEA World Energy Outlook 2019

NESTE

2020

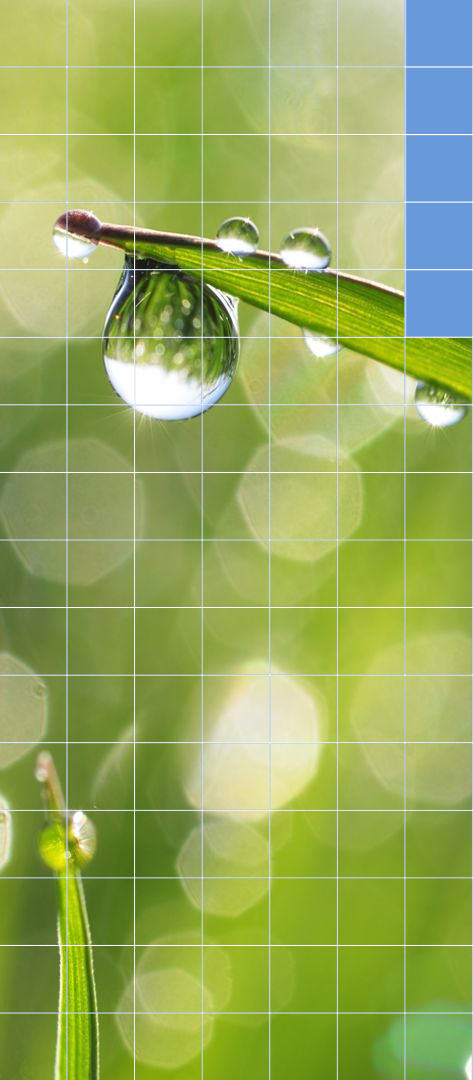
**Global renewable fuel
consumption
98 Mtoe/a oil displacement**



2040

**Feedstock* availability
for renewable fuel production
1071 Mtoe/a oil displacement**

**Smart regulation is needed
to make it happen!**



?



2040

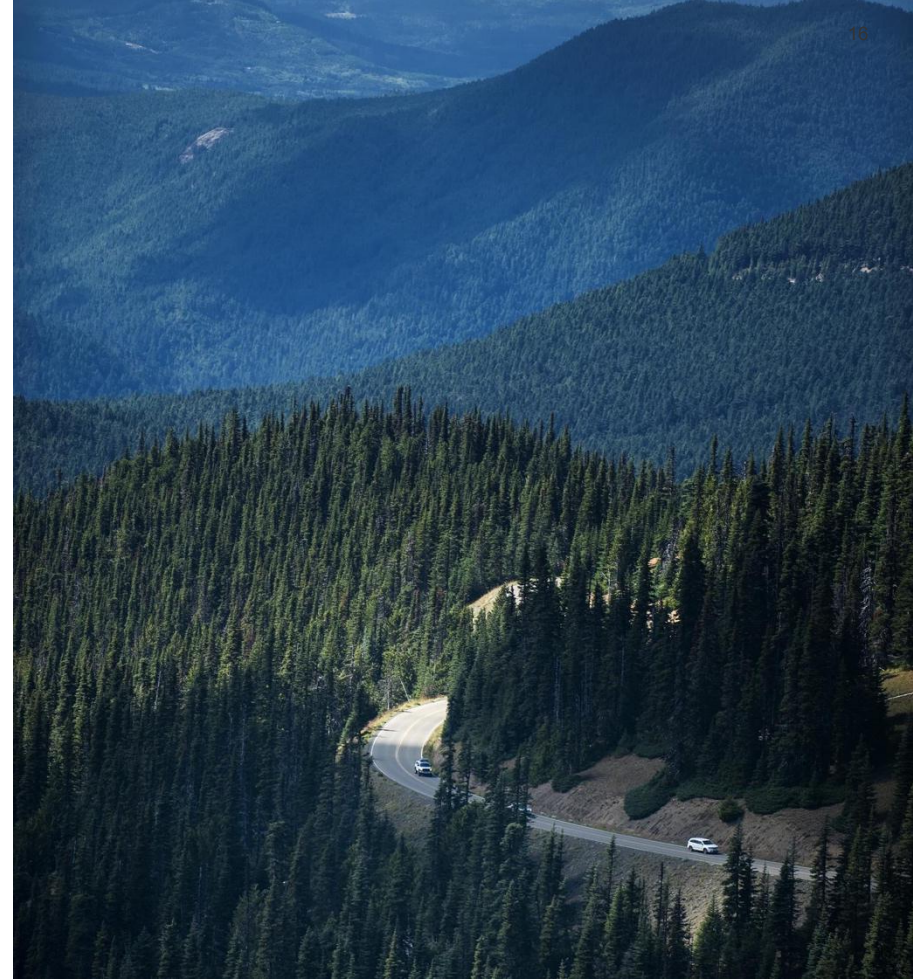
**We need both electrification and
renewable fuels -
and all other measures.**

**Smart regulation is needed
to make it happen!**



**Electrification and renewable fuels
are both needed**

**The society
aims to stop the
climate change
through
regulation**



Fuel regulation

- **RED II** defines rules for the biofuels and sets minimum mandates
- **NON-ETS** gives targets for member states' biomandates and electrification and thus can support significantly biofuel markets
- **Fuel quality directive (FQD)** aims to ensure that vehicles can operate everywhere in the EU on the basis of compatible fuels e.g. maximum ethanol content of gasoline. It also sets minimum GHG intensity reduction goal.

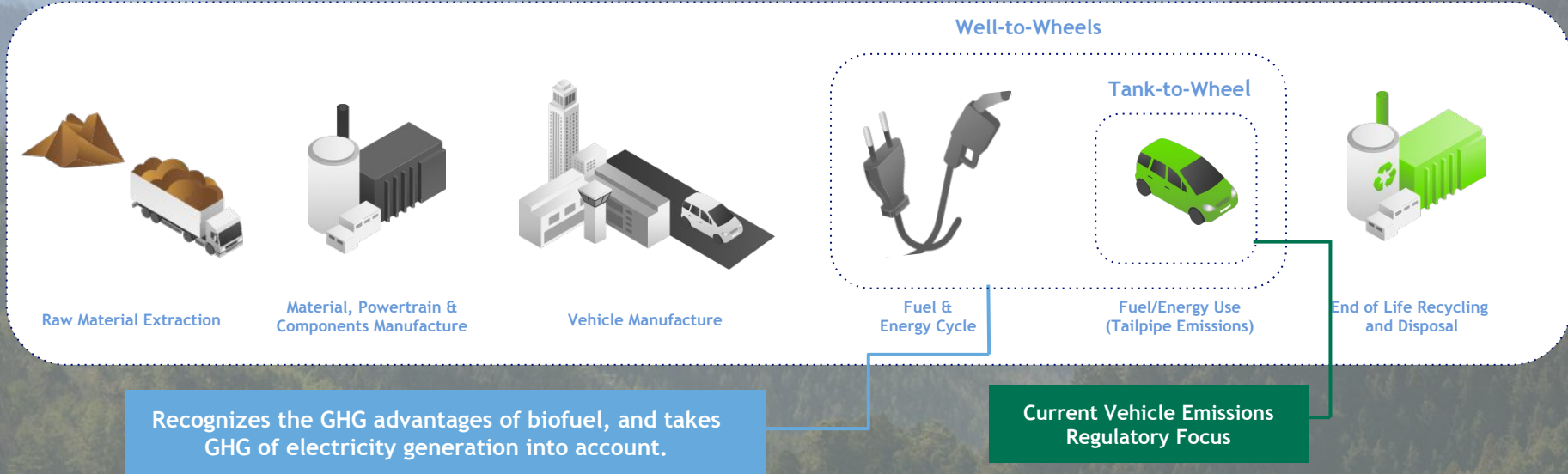


Vehicle regulation

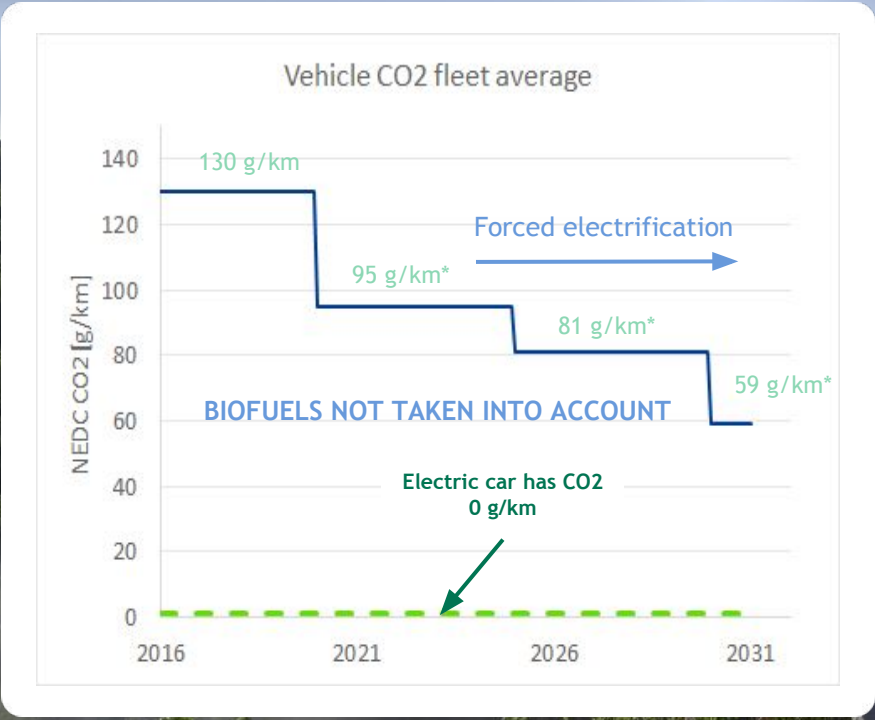
- **Vehicle CO2 regulation** defines what vehicles will be available. Especially challenging for light duty vehicles and drives aggressively towards electrification.
- **Clean vehicles directive** set guidelines for public transportation procurement. Forces governments and cities to move towards electrification. For light duty vehicles the electricity is the only measure to reach the target. For heavy duty regulation recognizes also 100% alternative fuels, but still requires electrification.
- **EURO 7/VII** future local emission limits. There is a risk that regulation will be so tight that it would in practice “terminate” the combustion engines

The current vehicle CO2 regulation is not telling the whole truth

Life-cycle analysis

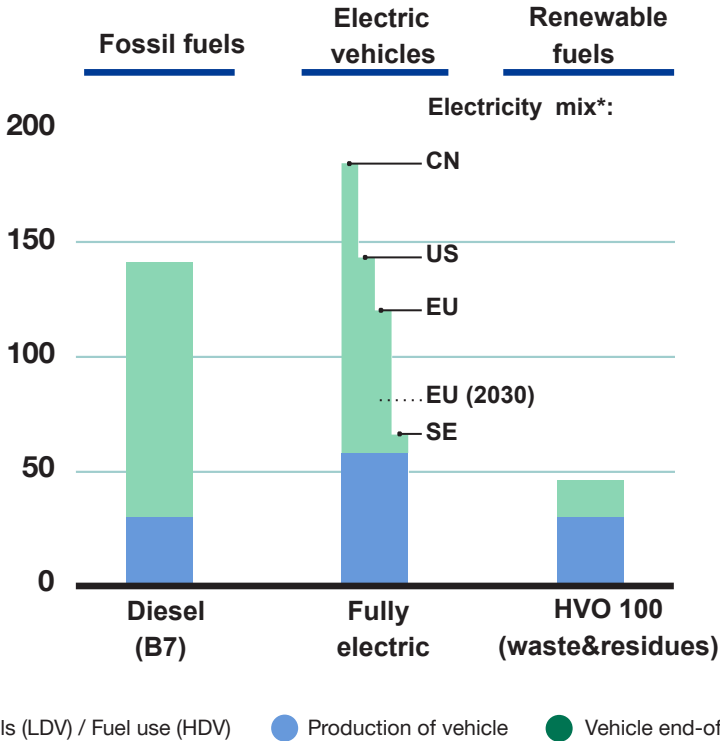


EU car CO2 regulation



Regulation defines what new vehicles there will be available in the future

Passenger cars: life cycle CO2 emissions (g CO2/km)



Renewable diesel made from w&r feedstocks can deliver substantial emission reductions in both passenger cars and trucks.

Electric vehicles have a great emission reduction potential, if running on renewable or low-carbon electricity.

*Power sector CO₂ intensity varies across countries depending on their fuel mix. In 2018, Sweden's intensity was 43 t CO₂/GWh, followed by EU's 320, US's 416, and China's 682, according to the IEA. With a greener power mix, the intensity is expected to decline to 132 t CO₂/GWh for the EU, 257 for the US and 531 for China by 2030, according to IEA's stated policy scenario.

An aerial photograph of a complex, multi-level highway interchange. The roads are filled with cars, and the interchange is surrounded by urban buildings and green spaces. The text is overlaid on the central part of the image.

Regulation is on a driver's seat
- But the route is not optimized

Neste's way forward



Our approach

Low
quality
feedstock

World-class
technologies
and know-how

High quality
drop-in
solutions



Availability is increasing rapidly



Neste MY, HVO100 available at 500 stations in Europe

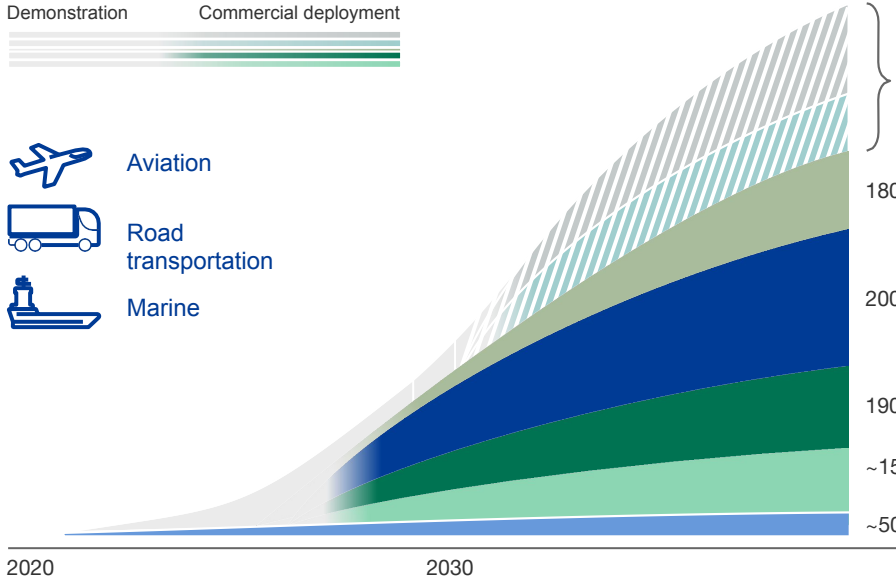


Unlocking new raw material pools with innovation to accelerate emission reductions in transportation

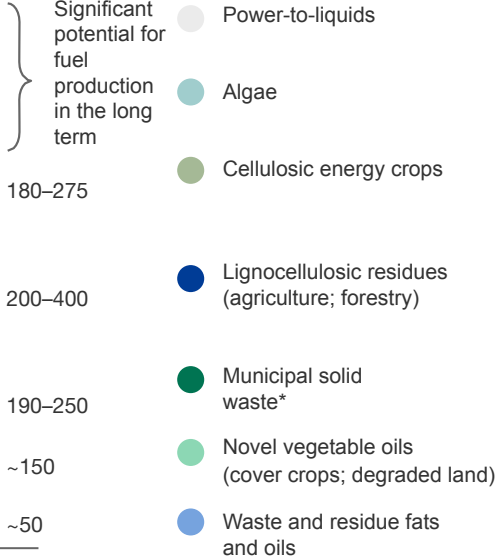
Global raw material potential for renewable fuels (Mtoe)



-  Aviation
-  Road transportation
-  Marine



Long-term fuel potential (Mtoe)



Renewable raw materials hold significant potential to accelerate the reduction of CO₂ emissions, in particular in the transportation sector.

Regulators hold the key to enable a broad renewable raw material pool to unlock the full emission reduction potential in transport and beyond.

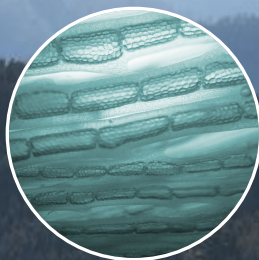
Source: Neste analysis based on WEF Clean Skies for Tomorrow and other sources. Biomass potential converted to fuel potential, using around 85% conversion efficiency (weight-based) for fats and oils and novel vegetable oils; around 25% efficiency for lignocellulosic biomass and municipal solid waste.

*80% organic waste, with 20% non-reusable, non-separable plastic waste

Scalable raw materials for the future



Renewable oils
and fats



Algae



Lignocellulose



Waste
plastics



Municipal
waste



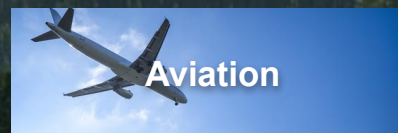
CO₂
(PtX)

Now

Mid- to longer term options



Road transportation



Aviation



Polymers and
chemicals



**Neste's focus is on scalable
drop-in solutions**

Conclusions



**Both electrification
and renewable fuels
are needed**

**Renewable fuels
have significant
scalability**

**The climate needs
smart regulation**



NESTE

Change runs on renewables

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