Wind meets Gas …and SAF

A route to net zero for European aviation

Gabriël Koetsier - Key Account Sales Manager Europe, Renewable Aviation

Groningen Airport Eelde 07.10.2022

NESTE

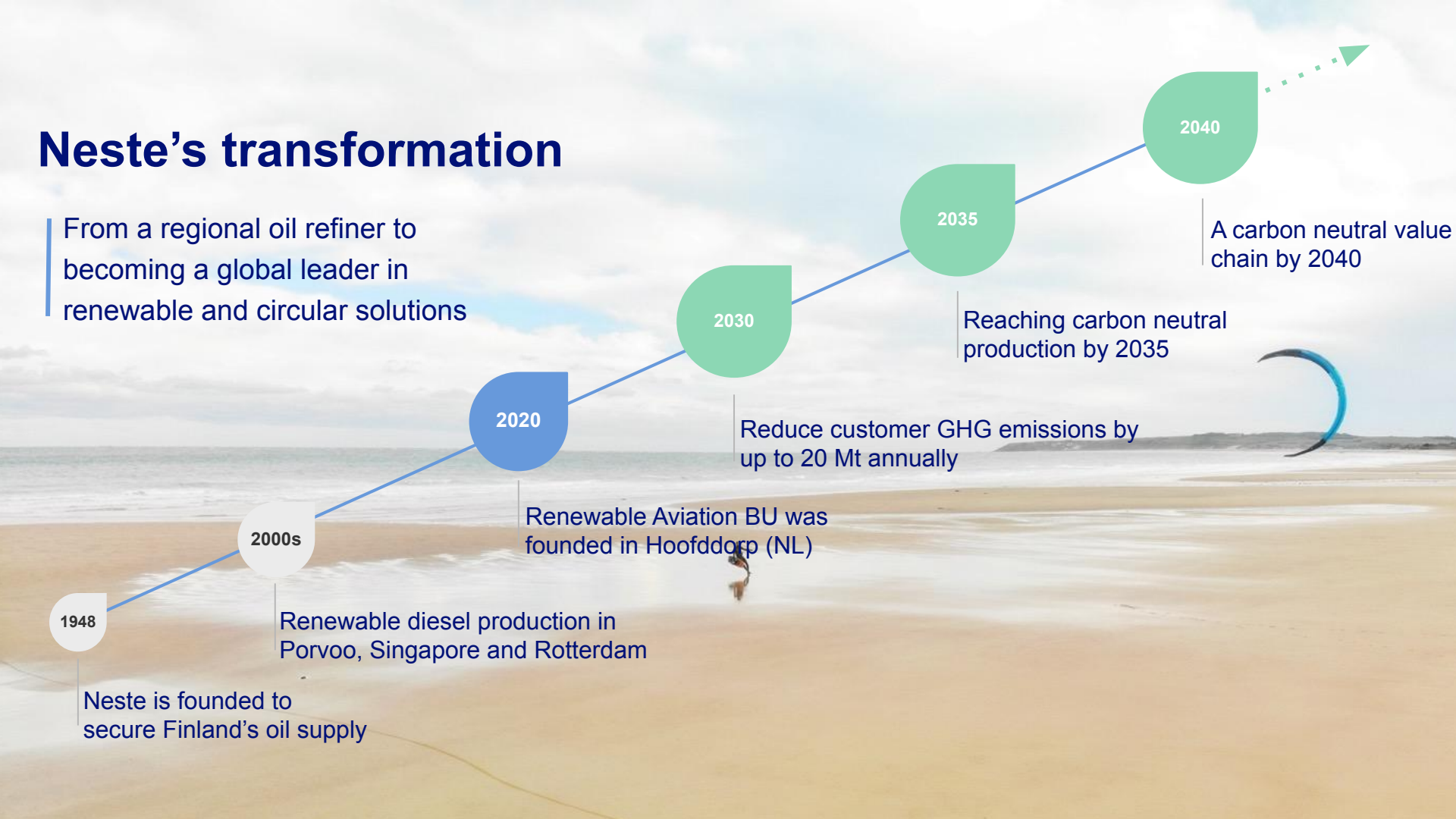
Question of the day

How many of you flew on SAF or compensated for your flights in 2022?


It´s a joint mission

Neste’s transformation

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



Aviation has committed to achieving net-zero emissions by 2050

- Aviation accounts for 2-3 % of global carbon emissions - growing to >20% by 2050 if action not taken
- In addition, non-CO2 effects, like contrails, have 2x higher climate impact
- Sustainable Aviation Fuel (SAF) has been identified as one of the key elements in helping achieve these goals
- Despite pandemic challenges, the outlook for SAF is increasingly clear

Driven by our purpose

We are

#1

Producer of Sustainable Aviation Fuel & Renewable Diesel

In 2021, our **customers reduced**

10.9 Mt

greenhouse gas emissions (CO_2e) with our renewable products

Our innovation team, makes out

25%

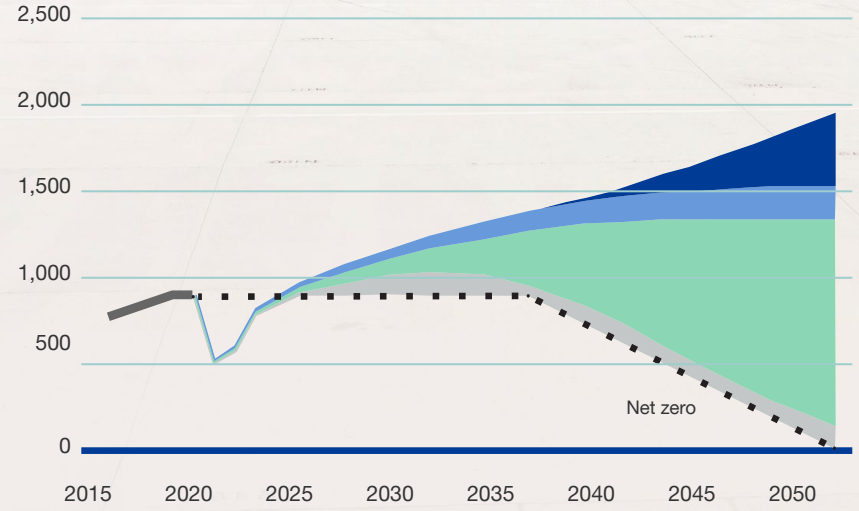
of Neste's total workforce

NESTE

https://youtu.be/pbE5oQQ15IQ

Aviation needs growing volumes of sustainable aviation fuels to cut emissions

Aviation CO_2 emissions trajectory and reductions by measure (Mt CO_2e)



- Technology (incl. Electric and hybrid aircraft)
- Operations and infrastructure
- **Sustainable aviation fuel**
- Offsets (or other carbon mitigation measures)

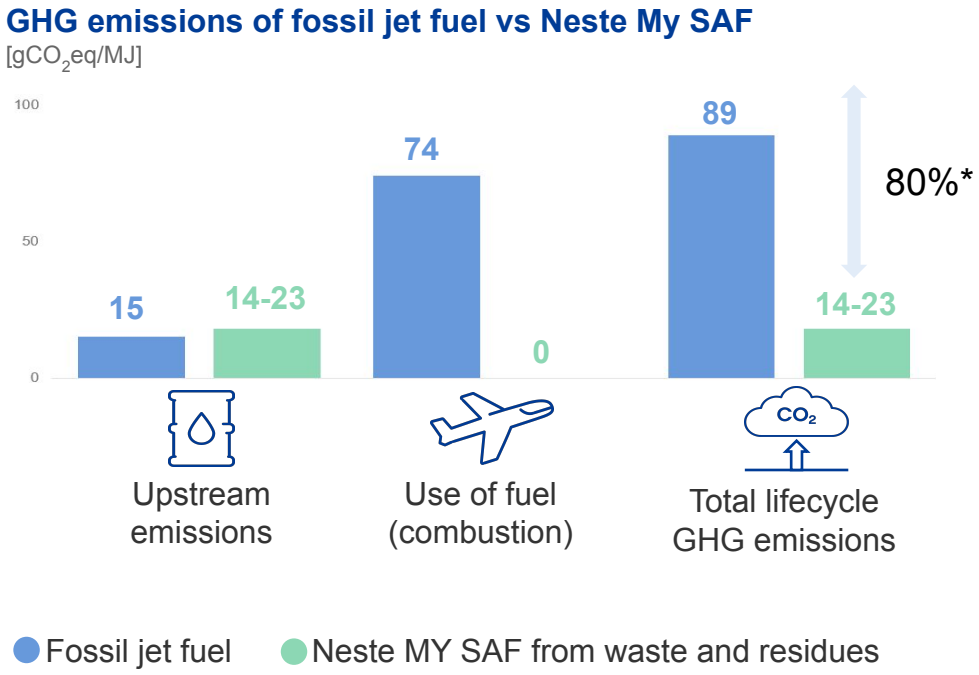
Aviation continues to rely heavily on liquid jet fuel, even with efficiency improvements and emergence of (short-haul) electric planes in the future.

Sustainable Aviation Fuels will be the most important tool in the aviation sector's transition towards net zero.

Source: ATAG Waypoint 2050

NESTE

SAF can reduce GHG lifecycle emissions up to 80% compared to fossil jet fuel



** According CORSIA LCA methodology*

NESTE MY
Sustainable Aviation Fuel

Made from

100%

waste and residues, such as used cooking oil

Drop-in solution requiring

zero

additional investment in infrastructure

NESTE

Neste's SAF production capacity is expected to reach 1.5 million tons by 2023

2022

100,000 tons of SAF capacity

→

2023

1.5 Mt of SAF capacity

→

Beyond

Continued growth & new technologies

NESTE

Neste is supplying SAF globally

The growth path of sustainable aviation fuels is based on continuously expanding raw material base

Current

Used cooking oil
Waste oil from food cooking

Animal fat
Food industry waste

Fish fat
Fish processing waste

Near future
5 - 10 years

Lignocellulosic

Municipal solid waste

Future
> 10 years

Algae

Power-to-X

Strong growth in sustainable aviation fuel market with opt-in schemes, incentives and SAF mandates

EUROPE

ReFuelEU ensures SAF account at least **2% by 2025** and **6% by 2030** of aviation fuels at EU airports

AMERICAS

Opt-ins schemes continue to drive market growth and additional **long-term policy frameworks** for SAF expected (e.g. SAF BTC)

ASIA

Regulation in **early phase,** but Neste well-positioned with regional production in APAC

Opt-in refers to scheme where a renewable fuel mandate can be fulfilled with using renewable fuels either in road transportation or aviation.

Passengers are looking for tangible solutions to make flying more sustainable

50+% of leisure travelers are concerned about CO_2

45% are trying to travel as environmentally friendly as possible

42% are willing to pay more for environmentally friendly travel

Sources: Leisure passenger research conducted by Kantar research for Neste Renewable Aviation. November 2021.

The time for action is now!


NESTE
Change runs on renewables