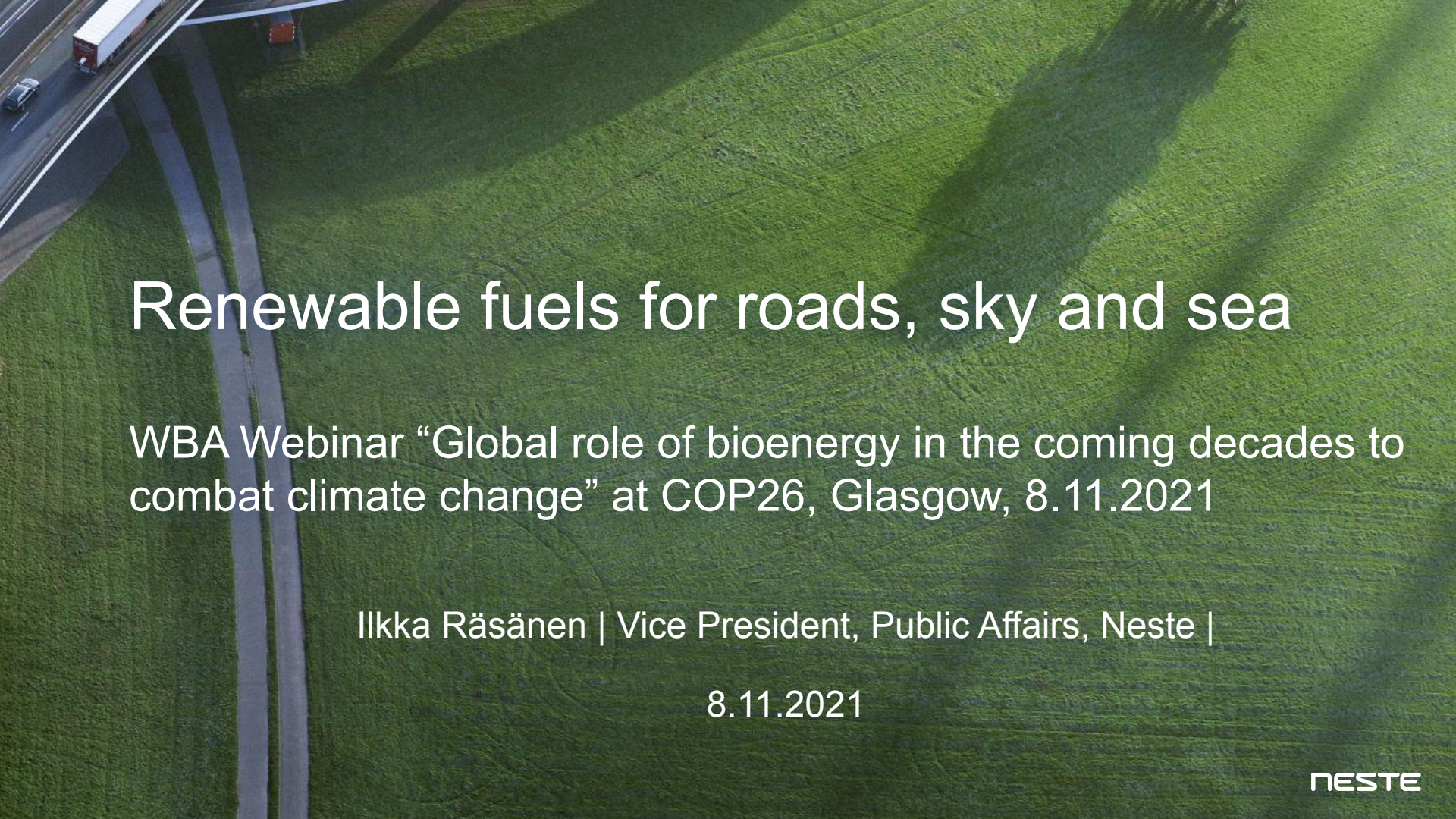


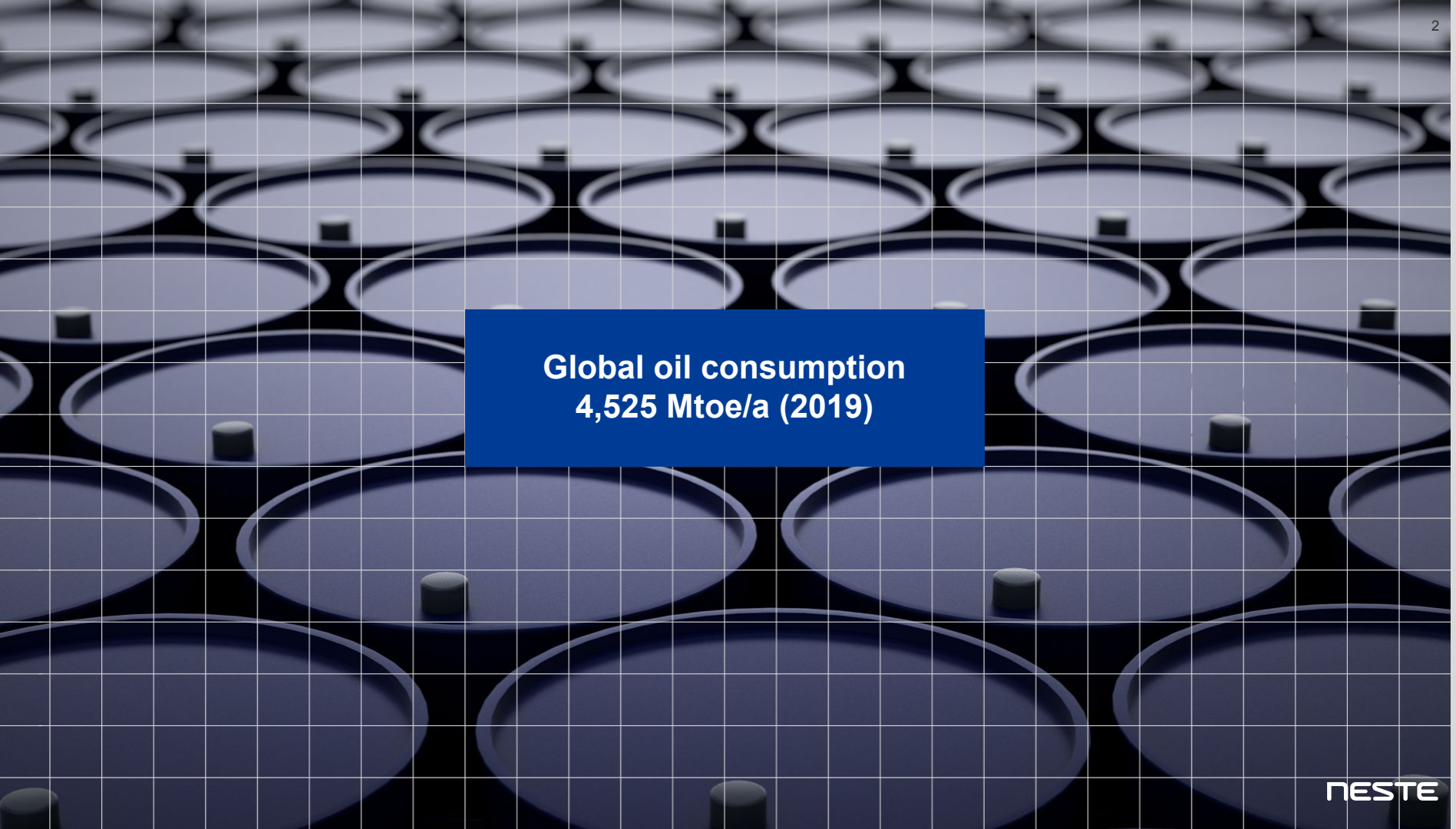
Renewable fuels for roads, sky and sea

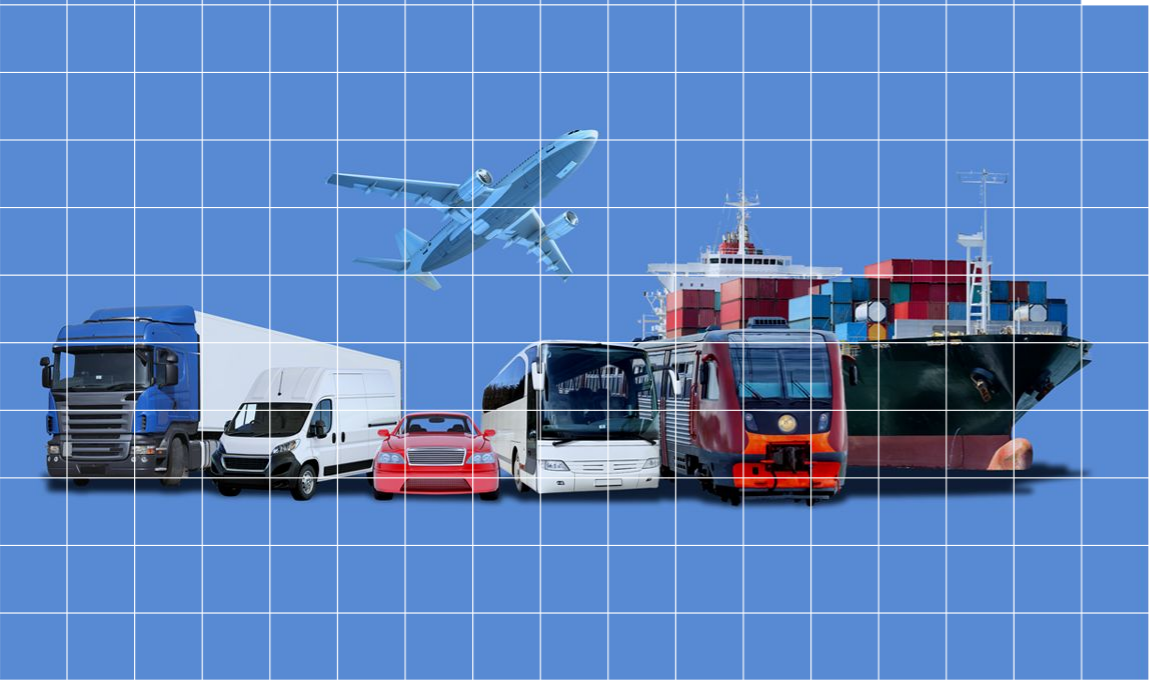
WBA Webinar “Global role of bioenergy in the coming decades to combat climate change” at COP26, Glasgow, 8.11.2021

Ilkka Räsänen | Vice President, Public Affairs, Neste |

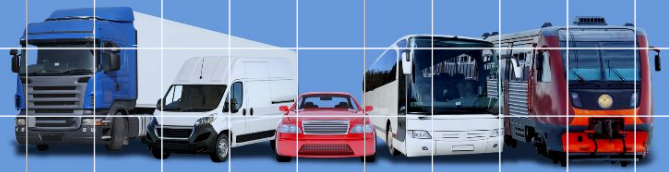
8.11.2021

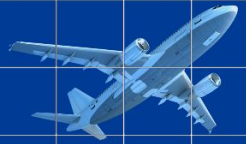
NESTE


Global oil consumption
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)

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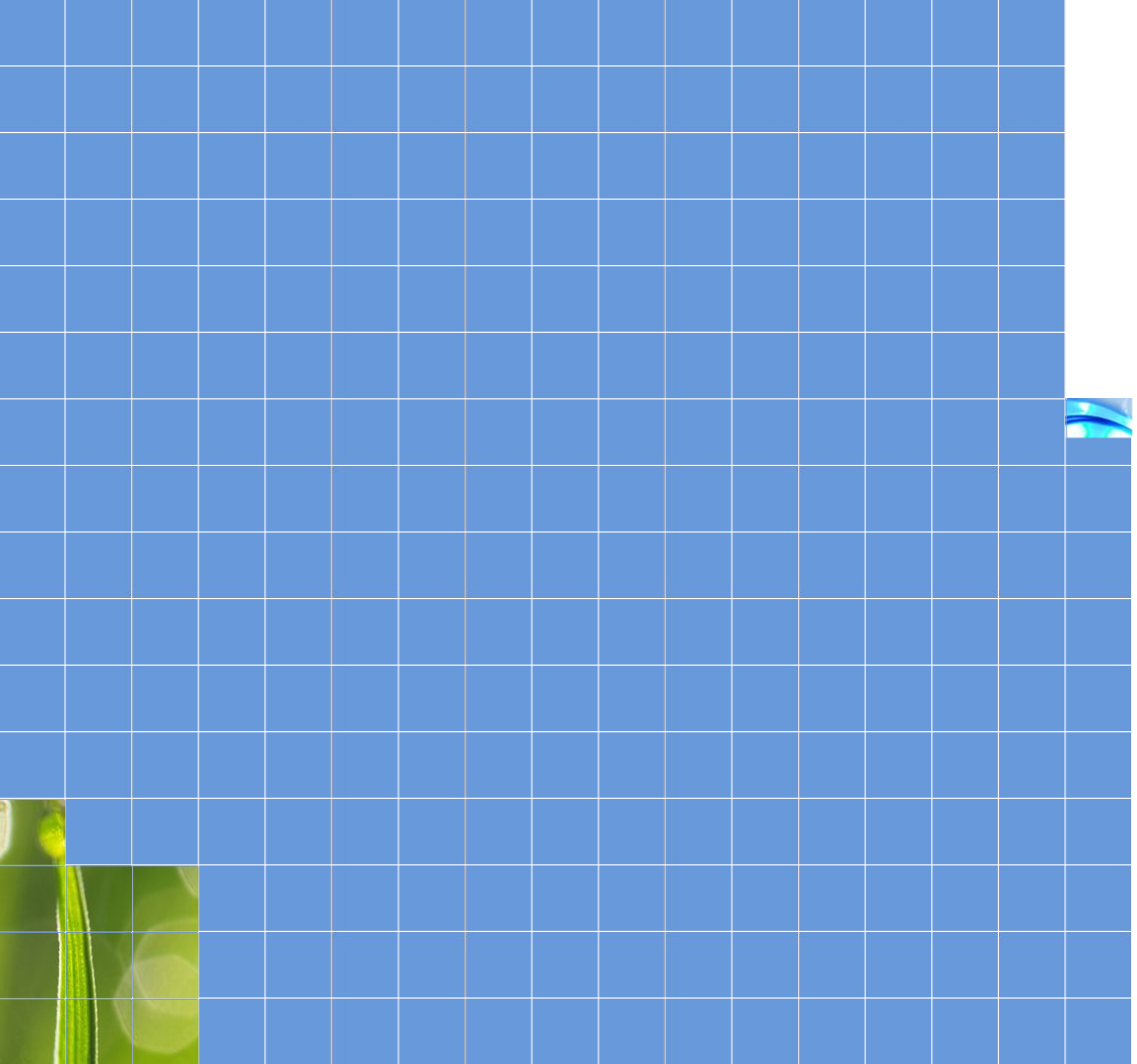

2020

10 million electric vehicles
6 Mtoe/a oil displacement

Global renewable fuel consumption
98 Mtoe/a oil displacement

2040

600 million electric vehicles
360 Mtoe/a oil displacement

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

EVs and renewable fuels can substitute more than 50% of crude oil in transportation

Enabling policy frameworks are needed to make it happen!

Source: Neste based on IEA World Energy Outlook 2019

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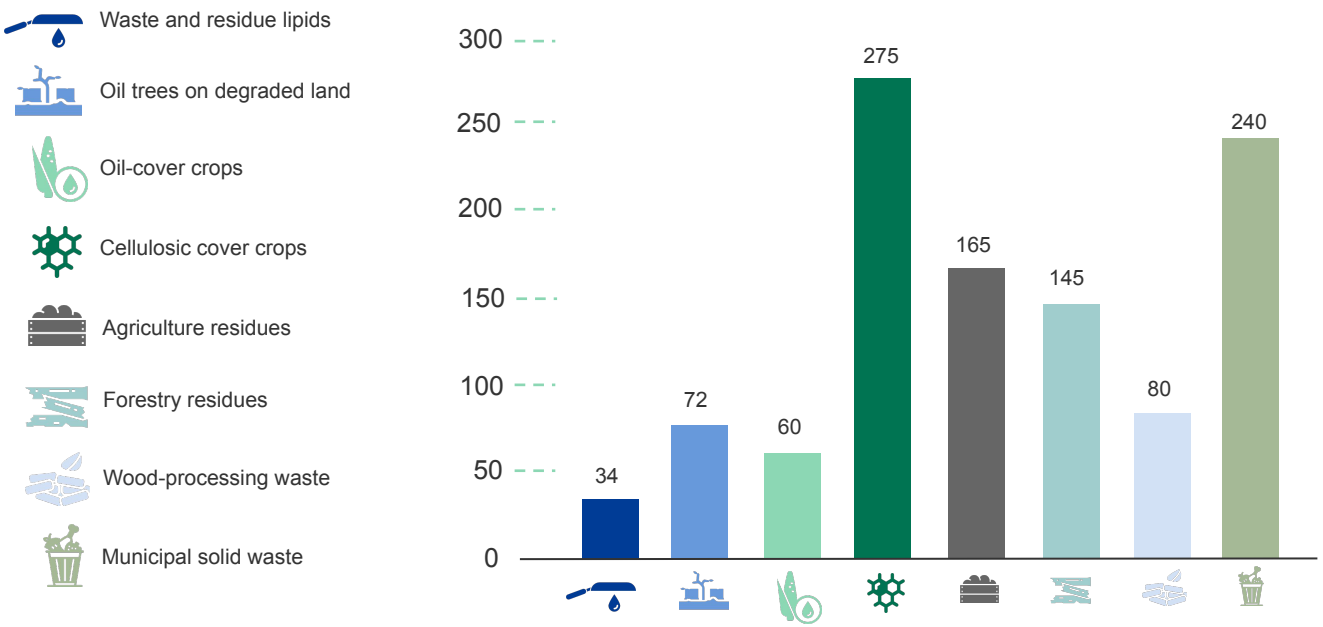
Global potential of biomass based biofuels Mtoe/a

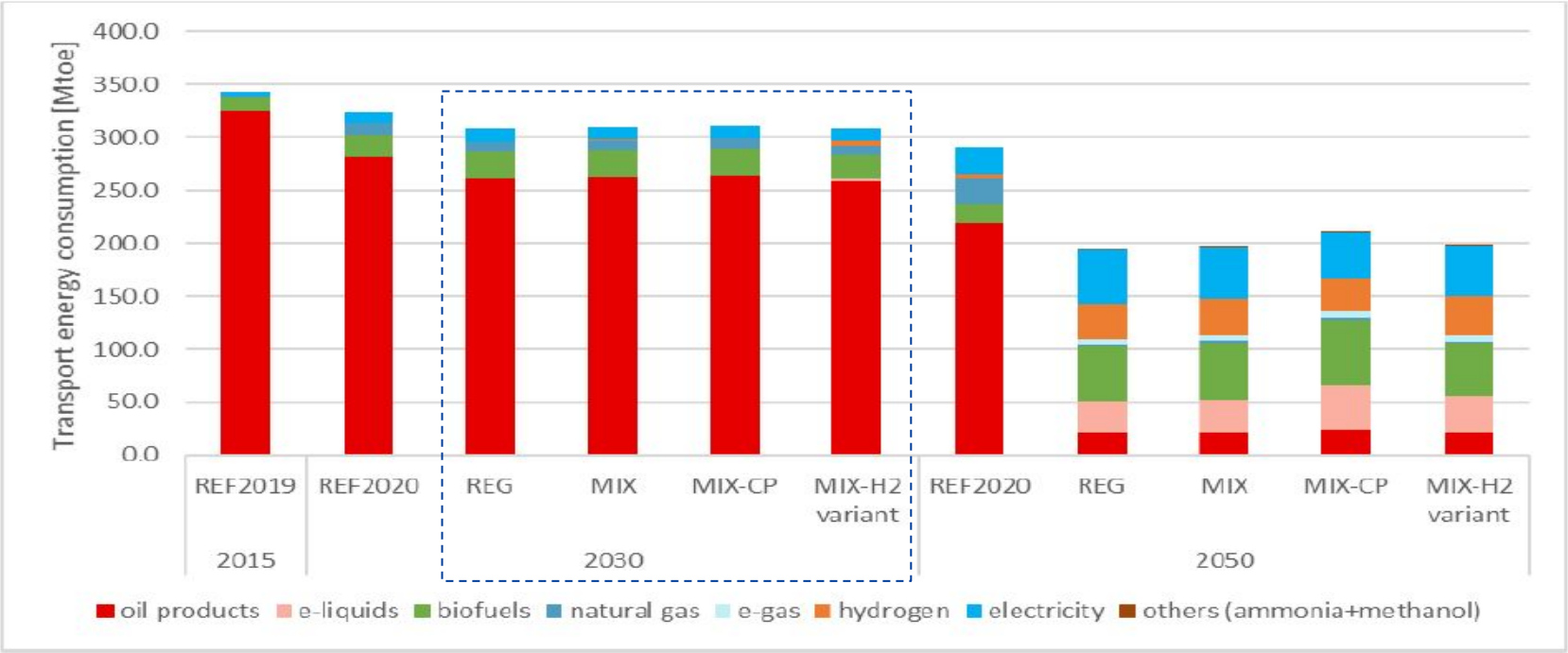


Source: Neste based on WEF, McKinsey

*Converted from Mt to Mt fuel equivalent based on 85% conversion efficiency from biomass to fuel
**Converted from Mt to Mt fuel equivalent based on 25% conversion efficiency from biomass to fuel (Source: Neste internal)

European Commission impact assessment: liquid fuels will dominate in 2030

Figure 22 - Energy consumption in transport (incl. international aviation and maritime) in the EU; Source PRIMES



https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020SC0176

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Internal combustion engines will dominate according to the EC Impact Assessment Study underpinning the Green Deal

More than 75% of passenger cars will be diesel or gasoline-powered in 2030

80% or more of all light goods vehicles will be diesel-powered in 2030

90% of all heavy goods vehicles will be diesel-powered or diesel hybrids in 2030, and 35-40% of all heavy goods vehicles will be diesel-powered or diesel hybrids in 2050

https://ec.europa.eu/clima/sites/clima/files/eu-climate-action/docs/impact_part2_en.pdf

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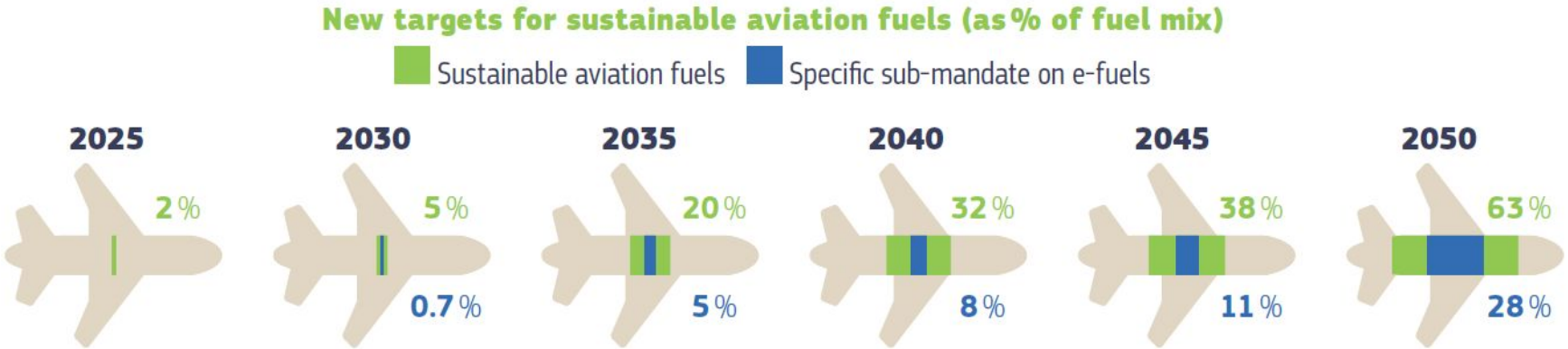
The EU moves ahead with a Sustainable Aviation Fuel mandate

ReFuelEU: Accelerating aviation's decarbonisation through sustainable aviation fuels (SAF)

- Obligation on fuel suppliers to distribute increasing levels of SAF at all EU airports;
- Obligation on airlines to uplift SAF-blended fuel before each flight from an EU airport;
- Focus on the most innovative and sustainable fuels, e.g. advanced biofuels and synthetic fuels (also known as electro-fuels);
- Ensure electricity supply for stationary commercial aircraft at all gates by 2025 and additionally at all outfield positions by 2030.




Thank you