



Nestlé Low Carbon Ambitions: The Supply Chain Approach

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Committee
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NESTLE

Global 100:
Neste – the world's
2nd most
sustainable
company





Driven by our vision

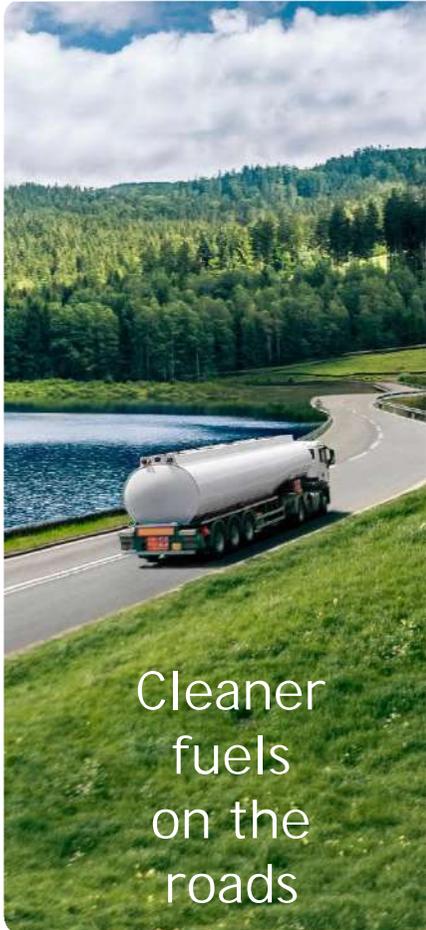
WE ARE 5,000
dedicated
professionals
committed to
our vision

OUR
CUSTOMERS
reduced their
GHG emissions
by 8.3 million tons
with our renewable
products

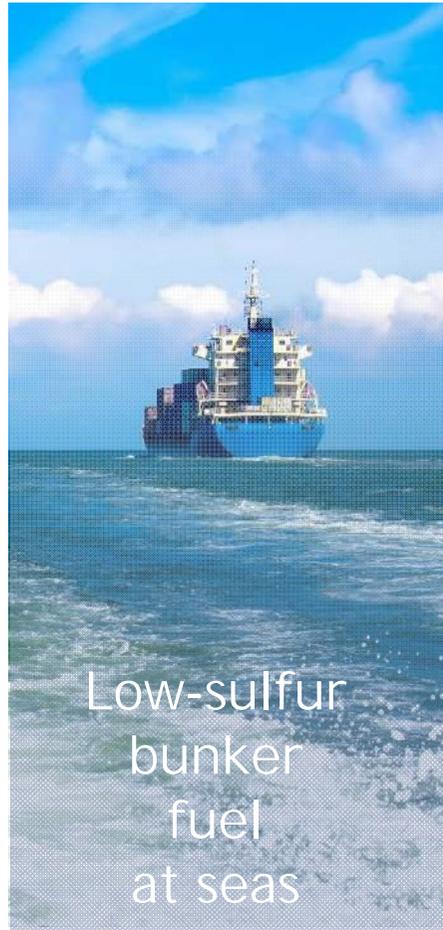
WE INVEST,
70% of our R&D
budget on finding
new raw materials

WE REACHED
1,101 M€
operating profit of
which
51% came from our
renewables

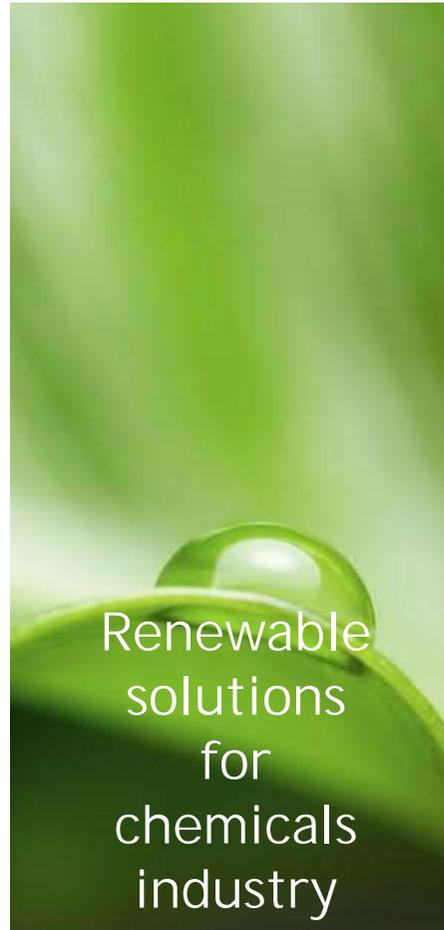
*Figures at year end of 2017.



Cleaner
fuels
on the
roads



Low-sulfur
bunker
fuel
at seas



Renewable
solutions
for
chemicals
industry



Renewable
jet fuel in
the air

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.



Passenger cars

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



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



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.



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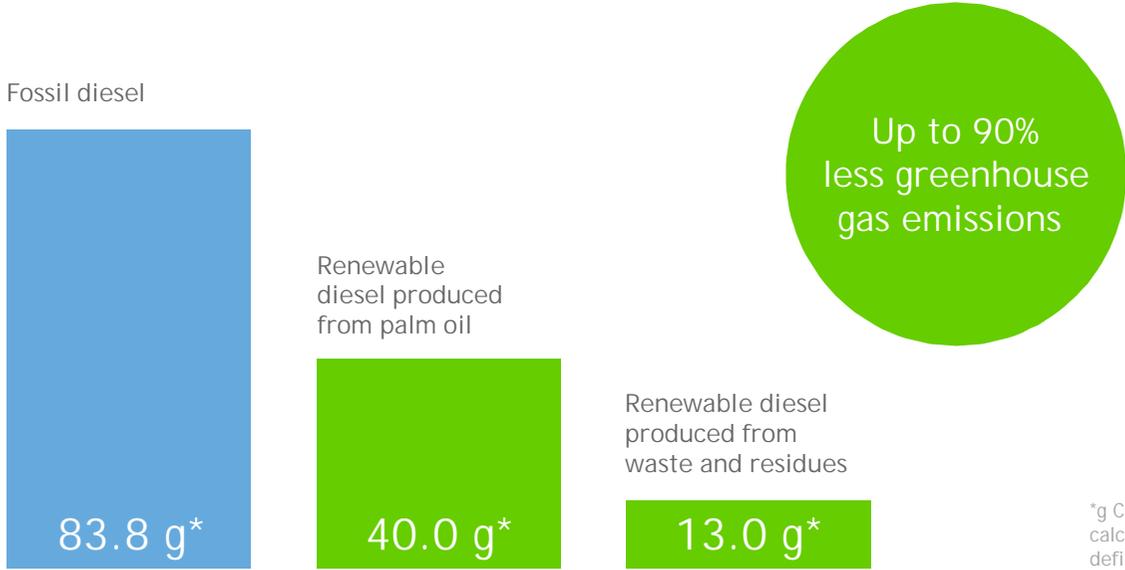
EU has a tight Climate and Energy Policy in 2020-2050

- By 2050, the EU should cut greenhouse gas emissions to 80% below 1990 levels.
- Milestones to achieve this are 40% emissions cuts by 2030 and 60% by 2040
- Emissions from transport could be reduced to more than 60% below 1990 levels by 2050.
- EU will have even more stringent climate regulation in the future
- Possible non-intended consequences of the policy, e.g. biodiversity; forestry; agricultural land use; food security in strong focus



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Neste Renewable Diesel offers a smaller carbon footprint



*g CO2eq/MJ. Greenhouse gas balances calculated in accordance with the method defined in the EU RED Directive.

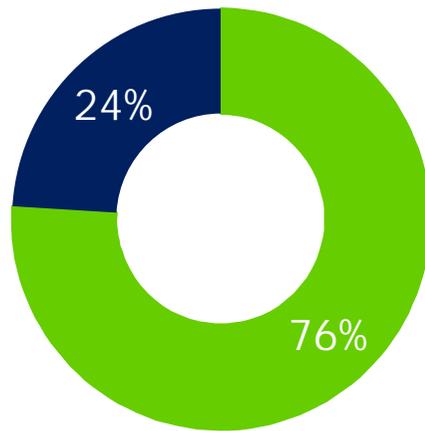
Broad range of renewable raw materials procured globally

75-80%
waste and residues

20-25%
vegetable oils



Our raw materials can be divided into two categories



Renewable raw material mix in 2017

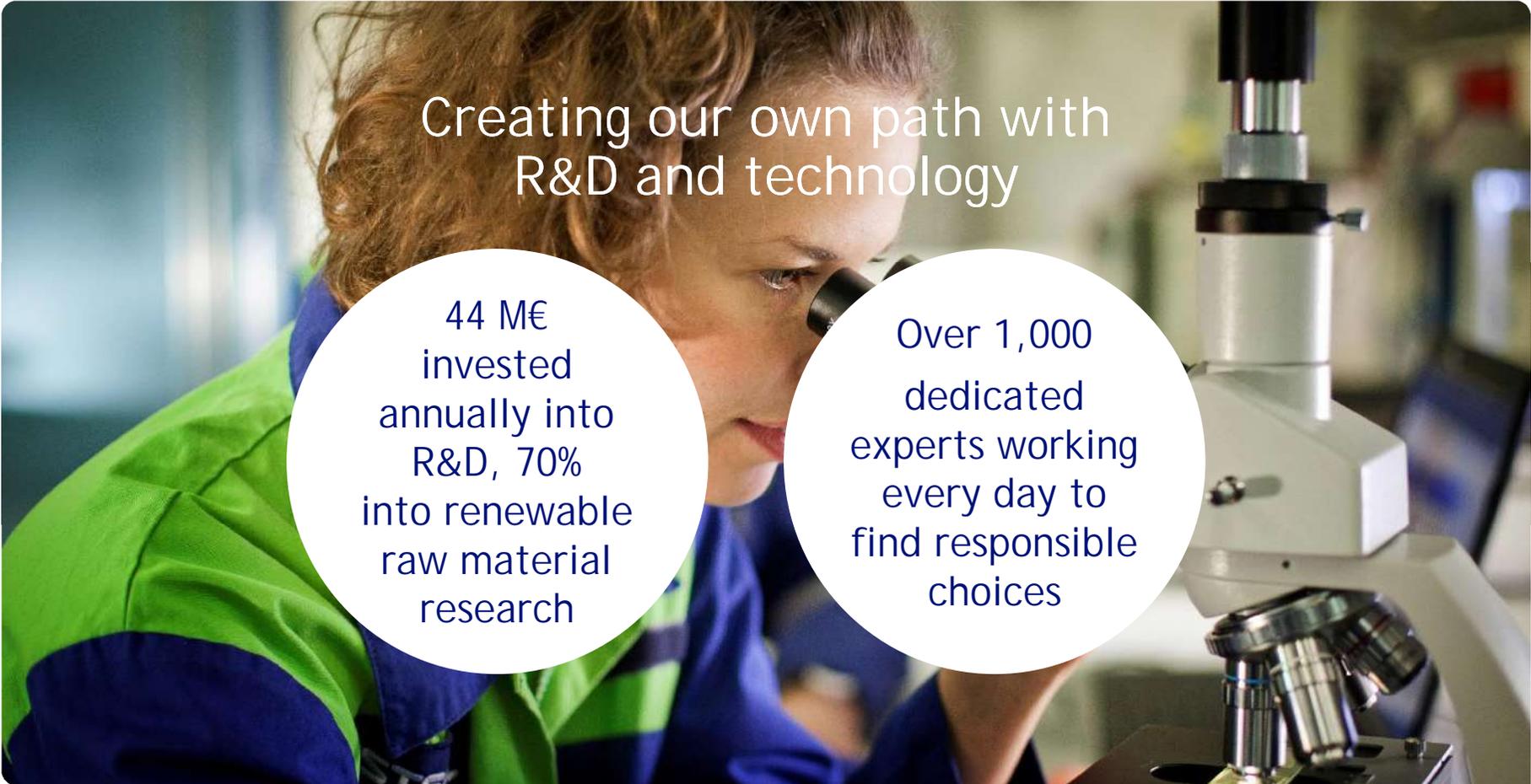
■ Waste and residues

- Waste and residue fats and oils mainly from food processing industry
- Waste can be understood as any substance or object which the holder discards or is required to discard*
- Residue is a substance that is not the end product(s) that a production process directly seeks to produce*
- Examples of waste and residue are used cooking oil, technical corn oil and waste animal fat

■ Vegetable oils

- Cultivated oils such as palm oil
- Strict sustainability requirements covering for instance traceability and land use
- All palm oil used by Neste is certified and traceable to plantation

*Definitions according to EU RED
Member states might apply different categorization



Creating our own path with
R&D and technology

44 M€
invested
annually into
R&D, 70%
into renewable
raw material
research

Over 1,000
dedicated
experts working
every day to
find responsible
choices

NESTE

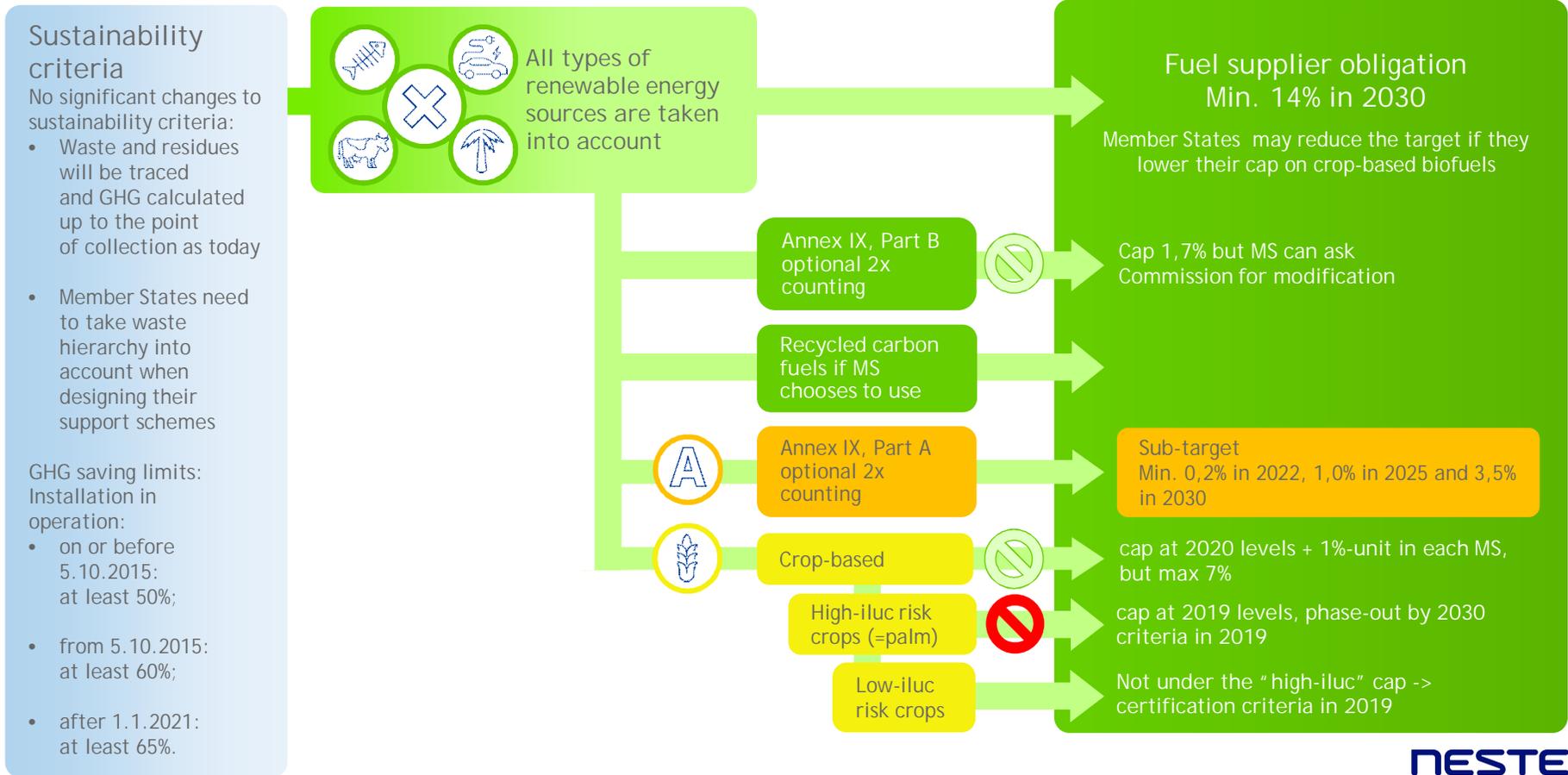
Low Carbon Initiatives in the palm industry sector

Composting

Methane Capture



Feedstocks in RED II



High iluc - low iluc risk crops

cap = 2019 level

as of 2023
decrease to 0% by
2030 at the latest

criteria for
certification of low
iluc-risk biofuels
by 1.2.2019

review and
amendment
by 1.9.2023

“high indirect land-use change risk food or feed crop-based biofuels, bioliquids and biomass fuels produced from food or feed crops for which a significant expansion of the production area into land with high carbon stock is observed”

Art 25(1): “shall not exceed the level of consumption in 2019 in the Member State, unless they are certified as low indirect land-use change-risk biofuels, bioliquids and biomass fuels”

Art 2 (v): ‘low indirect land-use change-risk biofuels and bioliquids’ means biofuels and bioliquids, the feedstocks of which were produced within schemes

- which avoid displacement effects of food and feed crop based biofuels, bioliquids and biomass fuels through improved agricultural practices,
- as well as the cultivation of crops on areas which were previously not used for cultivation of crops

and which were produced in accordance with the sustainability criteria for biofuels and bioliquids set out in Article 26;

*note that the directive does not have any references to the ILUC values presented in Annex VIII

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How can Neste meet feedstock requirements of RED II?

Low ILUC risk Palm Oil (region-specific?)

More waste and residue sourced materials (new materials, regions?)

New type of crop feedstock that is low ILUC risk

Develop new type of feedstock (Research and Development)

Annex IX feedstock and Recycled carbon feedstock

What are the Opportunities for Palm?

The need for facts
and data, less
emotional campaigns

Effective joint
campaign along all
producing countries

Stories about
successes,
improvements
(historically and
future plans)

Dialog with EU
regulators and
influencers

Effective policies and
regulations:
Eg. Moratorium,
Stronger ISPO and
MSPO