



# Neste

## Green Finance Second Opinion

March 3, 2021

**Neste is a Finnish based company focusing on the production of renewable transport fuels like diesel and jet fuel, as well as drop in substitutes replacing fossil fuel-based materials for manufacturing of bioplastics.** Neste is already a big producer of biofuels and is working to increase their production. Biofuel used in e.g. the transport sector, has a significant greenhouse gas mitigation potential. 82% of the company's profits in 2019 came from renewable products.

**Financing under this framework will be used for investments in renewable product refineries for production of renewable diesel, sustainable aviation fuel and raw materials for various polymers and chemical materials to reduce GHG (greenhouse gas) emissions.** Majority of proceeds will be used for projects related to transportation biofuels. Projects will be carried out in Neste's refineries in Singapore, Rotterdam, and Porvoo in Finland. Neste has informed that the GHG savings when compared to fossil fuel products are 80-90% for waste and residue based renewable diesel and 70-80% for renewable jet fuels. Neste is targeting carbon neutral production by 2035, including 100% renewable electricity by 2023 but their refinery in Singapore is currently using electricity from a fossil fuel intensive grid.

**Neste is using palm oil as a raw material in its renewable diesel production and waste utilised includes animal fat and residue from palm oil production (PFAD; Palm Fatty Acid Distillate).** Waste and residues comprise ca. 80% of the raw material used. Neste works to avoid deforestation from palm oil production and 100% of the palm oil produced is certified and traceable by segregation or mass balancing. The company is aiming to phase out the use of crop-based vegetable oils by 2025 but will continue to use PFAD and animal waste. Even if the company has an active stand against deforestation, it is difficult to fully ensure that deforestation is not indirectly taking place. Neste is using fossil fuels for heating purposes in the hot oil furnaces in their renewable refineries but informs that they are working to replace this with renewable energy. Raw material might be transported from Asia to refineries in Europe.

**Neste displays a pioneering engagement with environmental- and climate-oriented strategies and has a strong governance structure with a high focus on sustainability.** Neste has been among the sustainability leaders in the Dow Jones Sustainability Indices 14<sup>th</sup> consecutive times. All of Neste's refineries are certified and all raw materials used are traceable. Neste is also focusing on R&D and innovation and is developing their pre-treatment technologies to utilise low-quality waste streams and is by this contributing to the circular economy.

Based on the overall assessment of the projects that will be financed under this framework, and governance and transparency considerations, Neste's green Finance Framework receives a **CICERO Medium Green** shading and a governance score of **Excellent**. To improve the framework, Neste could increase the GHG-emissions savings for the transportation biofuels. The shading factors in Neste's exposure to palm oil and palm oil residues.

### SHADES OF GREEN

Based on our review, we rate the Neste's green finance framework **CICERO Medium Green**.

Included in the overall shading is an assessment of the governance structure of the green finance framework. CICERO Shades of Green finds the governance procedures in Neste's framework to be **Excellent**.



### GREEN BOND and GREEN LOAN PRINCIPLES

Based on this review, this Framework is found in alignment with the principles.





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# 1 Terms and methodology

This note provides CICERO Shades of Green's (CICERO Green) second opinion of the client's framework dated February 2021. This second opinion remains relevant to all green bonds and/or loans issued under this framework for the duration of three years from publication of this second opinion, as long as the framework remains unchanged. Any amendments or updates to the framework require a revised second opinion. CICERO Green encourages the client to make this second opinion publicly available. If any part of the second opinion is quoted, the full report must be made available.

The second opinion is based on a review of the framework and documentation of the client's policies and processes, as well as information gathered during meetings, teleconferences and email correspondence.

## Expressing concerns with 'shades of green'

CICERO Green second opinions are graded dark green, medium green or light green, reflecting a broad, qualitative review of the climate and environmental risks and ambitions. The shading methodology aims to provide transparency to investors that seek to understand and act upon potential exposure to climate risks and impacts. Investments in all shades of green projects are necessary in order to successfully implement the ambition of the Paris agreement. The shades are intended to communicate the following:

### CICERO Shades of Green



**Dark green** is allocated to projects and solutions that correspond to the long-term vision of a low carbon and climate resilient future. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Ideally, exposure to transitional and physical climate risk is considered or mitigated.



**Medium green** is allocated to projects and solutions that represent steps towards the long-term vision, but are not quite there yet. Fossil-fueled technologies that lock in long-term emissions do not qualify for financing. Physical and transition climate risks might be considered.



**Light green** is allocated to projects and solutions that are climate friendly but do not represent or contribute to the long-term vision. These represent necessary and potentially significant short-term GHG emission reductions, but need to be managed to avoid extension of equipment lifetime that can lock-in fossil fuel elements. Projects may be exposed to the physical and transitional climate risk without appropriate strategies in place to protect them.



**Brown** is allocated to projects and solutions that are in opposition to the long-term vision of a low carbon and climate resilient future.

### Examples



Wind energy projects with a strong governance structure that integrates environmental concerns



Bridging technologies such as plug-in hybrid buses



Efficiency investments for fossil fuel technologies where clean alternatives are not available



New infrastructure for coal

Sound governance and transparency processes facilitate delivery of the client's climate and environmental ambitions laid out in the framework. Hence, key governance aspects that can influence the implementation of the green bond are carefully considered and reflected in the overall shading. CICERO Green considers four factors in its review of the client's governance processes: 1) the policies and goals of relevance to the green Finance Framework; 2) the selection process used to identify and approve eligible projects under the framework, 3) the management of proceeds and 4) the reporting on the projects to investors. Based on these factors, we assign an overall governance grade: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.



## 2 Brief description of Neste's green finance framework and related policies

Neste is a Finnish based company and currently the world's largest producer of renewable diesel and jet fuel, produced from renewable raw material and renewable waste and residues from the food industry. Other business areas are oil products and related services for road transport, aviation, the marine sector as well as for the oil and petrochemical industries. The refineries producing renewable products are located in Singapore, Rotterdam and Porvoo in Finland, with the largest production shares in Singapore and Rotterdam. Neste has offices e.g. in Shanghai and Melbourne, focusing on sourcing waste and residue raw materials. In 2019 Neste's revenues were EUR 15.8 billion, with 82% of the company's comparable operating profit coming from renewable products. Neste aims to become a global leader in renewable and circular solutions, and is investing heavily in research, testing and new raw materials. Around 25% of the personnel are dedicated to R&D, and the company has a large R&D-network, among others with leading universities.

Neste's main products are:

Renewable diesel and jet fuel are produced from 100% renewable raw materials, resulting in GHG emission reductions of 80-90% for diesel fuel and 70-80% for the aviation fuel over the fuels' life cycle when compared to the fossil fuel products. The raw material consists of different waste<sup>1</sup> and residue oils and fats as well as virgin vegetable oils. Non-waste fractions comprise conventional vegetable oils<sup>2</sup> including 100% certified and traceable palm oil<sup>3</sup>. According to Neste, 80% are currently waste and residues.

Renewable and recycled plastics (Neste RE) are raw material for plastic production that is made of 100 % renewable and recycled raw materials, and results in up to 60% reduction in GHG-emission compared to fossil products. The renewable component of Neste RE is produced from 100% bio-based raw materials, primarily waste and residue oils and fats, such as used cooking oil. The recycled component of Neste RE consists of chemically-recycled plastic waste.

Renewable chemicals. Neste is producing a range of renewable chemicals, like isoalkane oil, naphtha, and propane. The products are used as alternatives to traditional mineral feedstock.

Neste is also producing a range of fossil products for road transport, aviation, and marine sectors as well as for oil and petrochemical industries.

### Environmental Strategies and Policies

Neste aims to become a global leader in renewable and circular solutions and updated their renewable strategy in 2019. As part of this strategy the company introduced targets related to climate change:

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<sup>1</sup> Waste and residues in Neste's raw material portfolio are used cooking oil, animal fat from food industry waste, vegetable oil processing waste and residues (e.g., palm fatty acid distillate, spent bleaching earth oil, palm effluent sludge), fish fat from fish processing waste and technical corn oil.

<sup>2</sup> Vegetable oils are not used in the production of jet fuel.

<sup>3</sup> Suppliers of vegetable oil must commit to Neste's Sustainability Policy, Supplier Code of Conduct, Responsible Sourcing Principle and Sustainability Principles for Biofuels. Palm oil suppliers have to be members of the Roundtable on Sustainable Palm Oil (RSPO) organisation. The organisation requires its members to commit themselves to respecting human rights and protecting rainforests.



- To reduce their customers' GHG-emissions by at least 20 million tons CO<sub>2</sub>eq annually by using renewable and circular solutions.
- To reach carbon neutral production (for scope 1 and 2 emission) by 2035.

To support these targets, Neste has introduced an internal price for GHG emissions to increase the weight of GHG emissions in investment calculations and business case evaluation. Neste has identified more than 70 initiatives on how to reach the carbon neutrality target, including increasing the use of renewable electricity, energy efficiency measures, and less emitting methods to produce hydrogen. In their biorefineries in Singapore and Rotterdam, excess biogases are utilised for energy production either directly or by supplying biogas to an external energy supplier. Remaining electricity is purchased from the local grid. Furthermore, Neste has signed agreements with Fortum and Ilmatar for energy produced from wind power, and it is estimated that nearly 30% of the energy used at Neste's production sites in Finland will be renewable wind in 2022. This will reduce scope 2 emissions with 55 tons CO<sub>2</sub>eq annually. Neste informs that they have not experienced any conflicts related to their work on wind power.

To reduce their scope 3 emissions, Neste has added requirements for suppliers to consider the climate impact of its operations and undertake GHG-reduction measures in their supplier code of conduct.

Neste's target related to circular economy solutions is to use entirely waste and residue materials for renewable products by 2025, from the current 80%. This includes a gradual reduction in the use of palm oil in the production of renewable diesel from ca 20% in 2020, and to replace virgin vegetable oils with waste and residues. Neste is also focusing on chemical recycling, aiming to utilise waste with no or low value in mechanical recycling. For their chemical recycling, Neste is targeting consumer waste that is not suitable for mechanical recycling. The sorting of waste takes place at the latest at the liquefaction facilities.

Neste has committed to the TCFD-reporting principles to disclose climate-related financial risks in future reporting. Neste assesses the climate risks, opportunities and impacts as a part of their strategy development, and when developing new projects. The company's waste policy is focusing on avoiding the formation of waste to the extent possible, and where different types of wastes are formed, apply the waste hierarchy in reducing impacts. Neste carries out environmental impact assessments (EIAs) for new projects and conducts life cycle analysis (LCAs) for their raw materials and products.

Neste is complying with the UN Global Compact Principles, and the Company's annual reports include the information corresponding to the reporting requirements of the Global Compact Initiative. Neste is reporting in accordance with the GRI (Global Reporting Initiative) Sustainability Standards, and scope 1, 2 and 3 emissions are reported in the annual report. The selected economic, social, and environmental indicators of the annual report have been assured by an independent third party.

To ensure sustainability in the supply chain, Neste is working with their suppliers to receive information about the origin of the waste they use as raw material. According to Neste, they only accept sustainably produced renewable raw materials from carefully selected responsible partners. All renewable crop based raw materials are traceable to their cultivation sites and waste based raw materials to their production sites. According to Neste, traceability allows them to monitor the supply chain and ensures that human rights are not violated, or primary forests or other carbon-rich areas used. Independent experts verify that sustainability criteria are being followed.

All of Neste's refineries have been certified in accordance with the requirements of the ISO 9001, ISO 14001 and ISO 45001 standards, and their renewable products refineries have EU compliant International Sustainability and Carbon Certification (ISCC), as well as Roundtable on Sustainable Palm Oil (RSPO) certificates.



### Use of proceeds

The net proceeds of the green finance issued by Neste will be used to finance or refinance eligible assets and projects that have been evaluated and selected by Neste in accordance with the green finance framework, with the majority of proceeds being used for new finance. Both existing and new projects can be financed. Refinancing of eligible assets and projects will, if relevant, have a look-back period of no longer than three years from the time of issuance.

The proceeds will be used to finance projects within the category "Eco-efficient and circular economy adapted products, production technologies and processes" with the vast majority being the construction of production facilities to produce renewable products. Proceeds will be used to finance the development, operations, maintenance and expansion of renewable and circular solutions to reduce greenhouse gas emissions. The environmental objectives targeted with proceeds allocated relate to the reduction of embedded CO<sub>2</sub> emissions and fossil-based raw materials of existing products using Neste's renewable and circular solutions.

Green finance will not be used to finance or refinance investments that utilise fossil-based raw materials or that are associated with environmentally negative resource extraction.

### Selection

The selection process is a key governance factor to consider in CICERO Green's assessment. CICERO Green typically looks at how climate and environmental considerations are considered when evaluating whether projects can qualify for green finance funding. The broader the project categories, the more importance CICERO Green places on the governance process.

Neste has established a Green finance committee (GFC) to ensure that selected projects are aligned with the criteria for eligible assets. Neste informs that factors such as lock-in and rebound effects, life cycle assessments, supply chain and transportation considerations are included in the selection process. The GFC has members from management, business finance, treasury, and sustainability. According to the issuer, the finance representative is the chair of the committee and the sustainability representative holds a veto. Neste is outlining the following process for selection of eligible assets:

1. Neste Investment Committee, chaired by the CEO, will inform the GFC of potential projects to be included in the green debt register.
2. Neste Green Finance Committee evaluates eligibility of the potential assets and projects according to eligibility criteria in above table and removes assets and projects that do not meet the criteria.
3. Neste Green Finance Committee verifies the eligibility of the potential Green assets and projects, and makes the final approval after the potential assets and projects have been approved by the Neste Investment Committee and/or Neste Board of Directors.

### Management of proceeds

CICERO Green finds the management of proceeds of Neste to be in accordance with the Green Bond Principles and the Green Loan Principles.

Neste will establish a green finance register in relation to the green finance issued, for the purpose of monitoring the eligible assets and projects and the allocation of the net proceeds from the green finance to eligible assets and projects. Proceeds will be allocated to a portfolio of disbursements.

Neste will over the duration of the outstanding green finance build up and maintain an aggregate amount of assets and projects in the green finance register that is at least equal to the aggregate net proceeds of all outstanding Neste



green finance. There may be periods when the total outstanding net proceeds of the green finance exceed the value of the eligible assets and projects in the green finance register. Any such portion will be held in accordance with Neste's normal liquidity management policy. The green finance register will form the basis for the impact and allocation reporting.

Neste informs that they will report on unallocated proceeds to the extent possible and confirms that unallocated proceeds will not be invested in fossil fuel related projects.

## Reporting

Transparency, reporting, and verification of impacts are key to enable investors to follow the implementation of green finance programs. Procedures for reporting and disclosure of green finance investments are also vital to build confidence that green finance is contributing towards a sustainable and climate-friendly future, both among investors and in society.

Neste will annually publish a report on the allocation and impact of green finance issued under the green finance framework. Where relevant, Neste will seek to align the reporting with the latest standards and practices as identified by ICMA and the guidelines in the Nordic Public Sector Issuer's Position Paper on Green Bond Impact Reporting. The GFC will be responsible for the reporting. Neste will receive a third-party audit of their reporting, and the results will be made available on the company's website.

### Allocation Report

The allocation report will, to the extent feasible, include the following components:

- A list of all eligible assets and projects funded, including amounts allocated.
- Descriptions and case studies of selected eligible assets and projects financed.
- Amounts invested in each category as defined in the use of proceeds and the relative share of new financing versus refinancing.

### Impact Report

The impact report will, to the extent feasible, include a section on methodology, baselines and assumptions used in impact calculations – including the grid emission factors used. Neste will strive to report on the actual environmental impact of the investments financed by the green finance. If/when actual impact for some reason is not observable, or unreasonably difficult to source, estimated impacts will be reported. The impact indicators may vary with investment categories, as defined in the green finance framework. The impact metrics selected may include the following:

Eco-efficient and circular economy adapted products, production technologies and processes:

- Annual CO<sub>2</sub> emissions avoided using Neste's products.
- Amount of fossil-based raw materials avoided/replaced.

Neste may choose to report the impact and allocation of other green debt instruments directly, and non-publicly, to the lenders or counterparts. For the avoidance of doubt Neste will clarify, and specifically outline, if an eligible asset or project has been financed by several green debt instruments.



### 3 Assessment of Neste’s green finance framework and policies

The framework and procedures for Neste’s green finance investments are assessed and their strengths and weaknesses are discussed in this section. The strengths of an investment framework with respect to environmental impact are areas where it clearly supports low-carbon projects; weaknesses are typically areas that are unclear or too general. Pitfalls are also raised in this section to note areas where Neste should be aware of potential macro-level impacts of investment projects.

#### Overall shading

Based on the project category shadings detailed below, and consideration of environmental ambitions and governance structure reflected in Neste’s green finance framework, we rate the framework **CICERO Medium Green**.

#### Eligible projects under the Neste’s green finance framework

At the basic level, the selection of eligible project categories is the primary mechanism to ensure that projects deliver environmental benefits. Through selection of project categories with clear environmental benefits, green bonds aim to provide investors with certainty that their investments deliver environmental returns as well as financial returns. The Green Bonds Principles (GBP) state that the “overall environmental profile” of a project should be assessed and that the selection process should be “well defined”.

Category	Eligible project types	Green Shading and some concerns
<b>Eco-efficient and circular economy adapted products, production technologies and processes</b>	<b>Renewable and circular solutions</b> <u>Investments in Renewable and Circular solutions</u> Investments in renewable product refineries for production of renewable diesel, sustainable aviation fuel and raw materials for various polymers and chemical materials. All of Neste’s renewable production refineries are International Sustainability & Carbon Certification (ISCC) certified or approved by the U.S. Environmental Protection Agency (EPA). <i>Examples of projects in this category:</i> Expansion of renewable products refinery in Singapore, ramp-up of sustainable aviation fuel, expansion of Neste My Renewable Diesel, Rotterdam sustainable aviation fuel feasibility study, acquisition and/or expansion	<b>Medium to Dark Green</b> <ul style="list-style-type: none"> <li>✓ The vast majority of proceeds will be used for construction of production facilities to produce renewable products. Neste is working to increase the share of electricity from renewable energy, but Neste’s refinery in Singapore is currently using electricity from a potentially fossil fuel intensive grid.</li> <li>✓ Proceeds will not be used to (re-)finance investments that utilise fossil-based raw materials or palm oil.</li> <li>✓ The ISCC Plus certification is a sustainability certification system for bio-based materials and also includes whole lifecycle GHG emission calculations for all refinery streams in the same way as ISCC EU certification.</li> <li>✓ Neste’s renewable diesel is resulting in 80-90% on the average and jet fuel in 70-80% reduction respectively over the fuels’ life cycle, when compared to the fossil fuel products. This complies with the draft EU-</li> </ul>



in renewable pre-treatment capacity, facilities and terminal infrastructure.

R&D investments related to Renewable and Circular solutions

R&D and investments to further develop our solutions portfolio for more sustainable transport, aviation, and chemical sectors. Focus is on scalable and sustainable waste carbon and required technologies.

*Examples of projects in this category:*

- Renewable fuels project in La Tuque, Quebec
- Pilot projects for scalable feedstocks for aviation fuels

taxonomy threshold of 65 % and the target in the RED II for installations starting operation from 1 January 2021.

- ✓ The EU taxonomy is referring to the manufacturing of biofuel for use in transport as a transitional activity.
- ✓ Biofuels are important to help the EU meet its GHG-reduction targets.
- ✓ Neste informs that lock-in and rebound effects, life cycle assessments, supply chain and transportation considerations are included in selecting eligible projects.
- ✓ Neste's refineries of renewable products are technically capable of running on 100% waste and residues.
- ✓ Products are isoalkane oil, naphtha, and propane.
- ✓ The aviation industry has committed to reducing carbon emissions by 50% from their 2005 level by 2050. In IEA's Sustainable Development Scenario biofuels are anticipated to reach around 10% of the aviation fuel demand by 2030, and close to 20% by 2040.
- ✓ Neste has a high focus on R&D and innovation and is developing their pretreatment technologies to utilise lower quality waste.
- ✓ Neste is widening the sources of renewable waste and residues, e.g. to utilise forest harvesting residues in biofuel in cooperation with e.g. Bioénergie La Tuque (a Canadian bio energy cluster).

Table 1. Eligible project categories

## Background

Bioenergy has a significant greenhouse gas (GHG) mitigation potential, provided that the resources are developed sustainably. Current systems can deliver 80 to 90% emission reductions compared to the fossil energy baseline<sup>4</sup>. According to the revised Renewable Energy Directive (RED II), biofuels must achieve greenhouse gas savings of at least 50% for plants starting operation before 2015 and 65% for plants starting after 2021, in comparison to fossil fuels to be considered sustainable for new production plants. The RED II also lays out targets for biofuel inclusions in the transport sector, like a 14 % inclusion of biofuel in the transport sector by 2030. Biofuels are important to help the EU meet its GHG-reduction targets<sup>5</sup>.

<sup>4</sup> <https://www.ipcc.ch/site/assets/uploads/2018/03/Chapter-2-Bioenergy-1.pdf>

<sup>5</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L2001&from=EN>



In March 2020, a technical expert group (TEG) proposed an EU taxonomy for sustainable finance that included a number of principles including “do-no-significant-harm (DNSH)-criteria” and safety thresholds for various types of activities<sup>6</sup>. In November 2020, EU published its draft delegated act to outline its proposed technical screening criteria for climate adaptation and mitigation objectives, respectively, which it was tasked to develop after the Taxonomy entered into law in July<sup>7</sup>. The EU Taxonomy establishes criteria for the activity “Manufacture of biogas and biofuels for use in transport mitigation”. The threshold for greenhouse gas emission savings from the manufacture of biofuels and biogas for use in transport are at least 65 % for new plants in relation to the GHG saving methodology and the relative fossil fuel comparator. The EU taxonomy is referring to the manufacturing of biofuel for use in transport as a transitional activity. Neste’s alignment with the EU Taxonomy including DNSH assessment has not been fully considered in this report.

Aviation accounts for around 15% of global oil demand growth up to 2030 in the IEA’s New Policies Scenario, representing 3,5% of global energy related CO<sub>2</sub> emissions by 2030. The aviation industry has committed to reducing carbon emissions by 50% from their 2005 level by 2050. In IEA’s Sustainable Development Scenario, biofuels are anticipated to reach around 10% of the aviation fuel demand by 2030, and close to 20% by 2040<sup>8</sup>.

There are several ways of producing plastics, e.g. using virgin fossil fuels, bio-based materials and mechanical or chemical recycling of plastic waste. Global production of plastic reached 322 million tons in 2015 and is expected to double over the next 20 years<sup>9</sup>. It is estimated that around 6% of global oil consumption is used for plastics production<sup>10</sup>. Plastics are increasingly problematic from an environmental and sustainability perspective. It is estimated that by 2050, the world’s oceans could contain more plastics than fish (by weight) and that plastics production will account for a greatly increased share of global oil use and GHG emissions<sup>11</sup>.

Plastics that are bio-based are partially or completely made from material that has been produced from biomass instead of fossil-based raw materials, including renewable resources such as crops and wood and waste streams such as the residues of food processing. In 2018, 2,61 million tons of bio-based plastics were produced worldwide, but that is still just less than 1% of the global plastic market. As demand for plastic continues to grow, so is the demand for more sustainable plastic solutions<sup>12</sup>. Bioplastics is a component of the circular bioeconomy. In 2018 the European Commission adopted a European wide strategy on plastics and bioplastics has an important role in this transition. With the emergence of more sophisticated materials, applications, and products, the global bioplastics market is already growing by about 20 to 100 % per year.

The EU has included also chemical recycling of plastic waste in their Circular Economy Action Plan<sup>13</sup>. Replacing plastic made from virgin fossil fuel with bio plastics or chemically recycled plastics can help reduce the carbon footprint of the end product while the other characteristics of the product remain the same.

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<sup>6</sup> Taxonomy: Final report of the Technical Expert Group on Sustainable Finance, March 2020.

[https://ec.europa.eu/knowledge4policy/publication/sustainable-finance-teg-final-report-eu-taxonomy\\_en](https://ec.europa.eu/knowledge4policy/publication/sustainable-finance-teg-final-report-eu-taxonomy_en)

<sup>7</sup> [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12302-Climate-change-mitigation-and-adaptation-taxonomy#ISC\\_WORKFLOW](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12302-Climate-change-mitigation-and-adaptation-taxonomy#ISC_WORKFLOW)

<sup>8</sup> <https://www.iea.org/commentaries/are-aviation-biofuels-ready-for-take-off>

<sup>9</sup> [https://eur-lex.europa.eu/resource.html?uri=cellar:2df5d1d2-fac7-11e7-b8f5-01aa75ed71a1.0001.02/DOC\\_1&format=PDF](https://eur-lex.europa.eu/resource.html?uri=cellar:2df5d1d2-fac7-11e7-b8f5-01aa75ed71a1.0001.02/DOC_1&format=PDF)

<sup>10</sup> <https://ourworldindata.org/faq-on-plastics#how-much-oil-do-we-use-to-make-plastic>

<sup>11</sup> Bioplastics: Sustainable materials for building a strong and circular European bio-economy (europa.eu)

<sup>12</sup> Bio-based? Recyclable? Biodegradable? Your guide to sustainable plastics | Neste

<sup>13</sup> [https://ec.europa.eu/environment/circular-economy/pdf/new\\_circular\\_economy\\_action\\_plan.pdf](https://ec.europa.eu/environment/circular-economy/pdf/new_circular_economy_action_plan.pdf)



### Governance Assessment

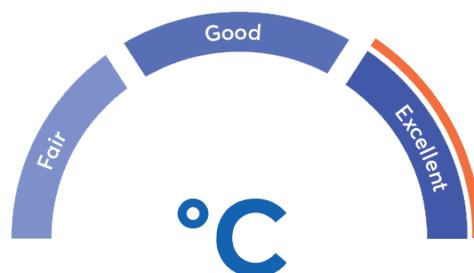
Four aspects are studied when assessing the NESTE's governance procedures: 1) the policies and goals of relevance to the green bond framework; 2) the selection process used to identify eligible projects under the framework; 3) the management of proceeds; and 4) the reporting on the projects to investors. Based on these aspects, an overall grading is given on governance strength falling into one of three classes: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.

Neste is targeting to be a global leader within renewable and circular solutions and has set out a target to use entirely waste and residue materials for renewable products by 2025. The company also has ambitious targets for reduction of their scope 1, and 2 emissions, and has implemented strong incentives to reach their targets. Progress towards the goals are given in the annual reports.

Neste has established a strong governance structure. They committed to the TCFD-reporting principles in 2019 and assess climate risks when developing new projects. Lock-in and rebound effects, life cycle assessments, supply chain and transportation considerations are included in the selection process. Unallocated proceeds cannot be invested in fossil fuel related assets.

Neste is reporting on scope 1, 2 and 3 emissions, and results are presented in the company's annual report. Impact reporting includes relevant climate metrics and allocation and impact reports will be reviewed by a third-party and be available on the company's website. Reporting will include transparency on methodology and the assumptions made.

The overall assessment of Neste's governance structure and processes gives it a rating of **Excellent**.



### Strengths

It is a clear strength that Neste is focusing their business on the production of renewable products and by this is contributing to the circular economy. Neste has a high focus on R&D and innovation and is developing their pretreatment technologies to utilise low quality waste. They are also widening the sources of renewable waste and residues to include forest harvesting residues.

It is considered a strength that Neste is aiming to be carbon neutral by 2035 and works on increasing the share of renewables in their production facilities.

There is an increasing need for biofuel for use in e.g. the transport sector, as it has a significant greenhouse gas mitigation potential. It is considered a strength that Neste is a big producer of biofuels and that they are working to increase their production.

Neste has a high focus on sustainability and was among the sustainability leaders in the Dow Jones Sustainability Indices for the 14<sup>th</sup> consecutive time in 2020. The completion of LCAs is contributing to identifying the most sustainable solutions.



## Weaknesses

CICERO Green finds no material weaknesses in Neste's Green Finance Framework.

## Pitfalls

Refining is an emission intensive activity, and Neste is purchasing electricity from the local grid on their production sites. Grid emission factor in Singapore are high compared to Nordic standards (408,5 g CO<sub>2</sub>/kWh in Singapore vs 81 g CO<sub>2</sub>/kWh in Finland in 2019). To reduce emissions from electricity use, Neste is targeting 100% renewable electricity by 2023.

Neste informs that they are using fossil fuels for heating purposes in the hot oil furnaces in their renewable refineries, but that they are working to replace this by renewable energy.

Neste is using vessels instead of trucks for transportation of raw materials if possible, which is associated with GHG-emissions. The company has refineries located in several regions that will reduce transportation needs, however raw material might be transported from Asia to Europe for refining. Neste is working to optimize its logistics, by e.g. using bigger vessels and renewal of the fleet. CICERO Green encourages Neste to continue the work on reduction of emissions from transportation, and to ask their suppliers for the most effective solutions.

In addition to the production of renewable products, Neste is also producing fossil fuel-based oil products in other production units at their Porvoo, Finland refinery.

## Palm oil

Neste is using virgin palm oil and palm oil refining residue (PFAD; palm fatty acid distillate) in the production of some of their products, among others renewable diesel. The palm oil volume in 2019 was 674 000 tons and represented 20% of the raw material sourced. Palm oil is not used in jet fuel. Neste informs that palm oil sourced provides a significant GHG-reduction when refined into renewable diesel and when the fuel's emissions over its entire life cycle are compared to similar emissions from fossil diesel use.

According to the issuer, Neste has a stand against actions that can cause deforestation, and they claim to be the only energy sector company that transparently discloses its forest footprint as part of the CDP forest program<sup>14</sup>. In January 2019, Neste's deforestation risk management performance was evaluated within the CDP Forests program as belonging to the Leadership class, reaching 'A-' (Forests, palm oil) and 'B' (Forests, cattle products). Neste has established a traceability dashboard on their web page that provides detailed information on the traceability aspects of their palm oil products. They do not own palm oil plantations or operate palm oil mills or refineries, but source directly from producer companies in Malaysia and Indonesia. According to the company, all palm oil has been traceable to the plantation level since 2007 and 100% certified since 2013. Names and location of all palm oil mills and plantations are given on the company's web page. 99.99% of the PFAD supply chain has been independently mapped and validated to the supplying palm oil mills and 76% all the way to plantations<sup>15</sup>.

Certification schemes used related to palm oil include a 100% ISCC certification and additionally 34% RSPO Identity preserved and 59% RSPO Mass balance<sup>16</sup>. To identify potential deforestation and peat development they are monitoring the supply chain with satellite monitoring systems, as well as supporting the development of a public radar monitoring system, Radar Alerts for Detecting Deforestation (RADD). Neste further informs that they

<sup>14</sup> CDP is a not-for-profit charity that runs a global disclosure system to manage environmental impacts.

<https://www.cdp.net/en/forest>

<sup>15</sup> [Palm oil dashboard | Neste](#)

<sup>16</sup> The mass balance version allows physical mixing of inputs from certified and non-certified sources at the mill, and allows certification of the final product in proportion to the share of certified input. The Identity preserved version is stricter and ensures there has been no mixing with non-certified sources in the supply chain.



support forest conservation and restoration, and replanting initiatives and are working actively with their local suppliers. Palm oil suppliers have to be members of the Roundtable on Sustainable Palm Oil (RSPO) organisation. The organisation requires its members to commit themselves to respecting human rights and protecting rainforests.

The investor should be aware that there are different approaches to how PFAD is classified. Several countries (including United Kingdom, Norway, Germany and Sweden) and organisations like the Rainforest foundation, classify PFAD as a byproduct of palm oil production rather than a waste or residue<sup>17</sup>, while other countries (like Finland) classify PFAD as a residue. When classifying PFAD as a residue of palm oil and not a by-product it allows for calculation of GHG-emissions only from the point of collection and onwards. Furthermore, if PFAD is classified as a waste or residue rather than a byproduct, it can be treated as advanced biofuel, which can be eligible for double counting in the EU requirement on share of renewable energy in transport fuel<sup>18</sup>.

Neste works on sustainability and to identify actions that can lead to deforestation. Neste is aiming to phase out the use of palm oil by 2025, but they will continue to use PFAD also after 2025. It is difficult to fully ensure that deforestation is not taking place. Even if the palm oil used in the biofuel is not linked to deforestation, there could be leakages in the sense that the deforestation-linked palm oil is shifted to other sectors.

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<sup>17</sup>2020\_05\_REDII\_and\_advanced\_biofuels\_briefing.pdf (transportenvironment.org)

<sup>18</sup> Ny klassifisering av PFAD fra 1. januar 2017 - Miljødirektoratet (miljodirektoratet.no)



# Appendix 1: Referenced Documents List

Document Number	Document Name	Description
1	NESTE's Green Finance Framework, dated February 2021.	Neste Green Finance Framework, dated February 2021.
2	Neste Annual report, 2019.	Annual report for the year 2019, including the sustainability report.
3	TCFD Reporting and Sustainability Risk Management	Neste's TCFD reporting on financial climate risk.
4	Neste Climate Strategy Document	Sets out Neste's targets related to climate change.
5	Neste Capital Markets Day material 3/2020	Information for investors, 03/2020.
6	Neste Sustainability Policy	Giving input on Neste's principles on sustainability.
7	Neste Code of Conduct	The CoC for employees describes what is expected of an individual connected to Neste.
8	Neste Supplier Code of Conduct.	Expectations related to sustainable business, ethics, and professional behaviour for the suppliers.
9	Neste Responsible Sourcing Principles	Neste's principles to ensure a transparent, sustainable and resilient food supply chain.



## Appendix 2: About CICERO Shades of Green

CICERO Green is a subsidiary of the climate research institute CICERO. CICERO is Norway's foremost institute for interdisciplinary climate research. We deliver new insight that helps solve the climate challenge and strengthen international cooperation. CICERO has garnered attention for its work on the effects of manmade emissions on the climate and has played an active role in the UN's IPCC since 1995. CICERO staff provide quality control and methodological development for CICERO Green.

CICERO Green provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green bond investments. CICERO Green is internationally recognised as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Green is independent of the entity issuing the bond, its directors, senior management and advisers, and is remunerated in a way that prevents any conflicts of interests arising as a result of the fee structure. CICERO Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.

We work with both international and domestic issuers, drawing on the global expertise of the Expert Network on Second Opinions (ENSO). Led by CICERO Green, ENSO contributes expertise to the second opinions, and is comprised of a network of trusted, independent research institutions and reputable experts on climate change and other environmental issues, including the Basque Center for Climate Change (BC3), the Stockholm Environment Institute, the Institute of Energy, Environment and Economy at Tsinghua University and the International Institute for Sustainable Development (IISD).

