



TOMRA

Green Bond Second Opinion

October 17, 2022

Executive Summary

TOMRA is a circular economy services and equipment manufacturing company based in Norway and operating in over 80 markets globally. Its business areas include reverse vending machines (RVMs) for beverage containers, sorting systems for recycling and upgrading materials, and sensor-based food sorting and grading.

Under its green bond framework, TOMRA seeks to finance or refinance RVM and waste sorting machine manufacturing, post-consumer materials collection and recycling facilities, R&D, software improvements, advocacy to build support for deposit return systems, on-site renewable energy, lower emissions vehicles, and sustainable materials for machine components. Investments are expected to focus on reverse vending machines followed by other waste sorting systems, with a smaller share allocated to reducing impacts from TOMRA's own operations. While the issuer has classified all eligible projects under the category of pollution prevention and control, we note that some would fall under the International Capital Market Association (ICMA) Green Bond Principles categories of renewable energy and clean transportation.

We rate the framework **CICERO Dark Green** and give it a governance score of **Good**. TOMRA's RVMs and waste sorting machines are well-aligned with circular economy solutions and a low-carbon future, leading to a Dark Green shading. Its investments in addressing its own emissions are Dark to Medium Green due to the eligibility of vehicles running on biofuels with lifecycle emissions risks as well as investments in on-site solar and electric vehicles that are more fully aligned with the climate transition. TOMRA has committed to strong climate mitigation goals, selection processes with additional due diligence, and allocation and impact reporting plans, with opportunities for improvement on climate adaptation and resilience strategies and supplier engagement on climate issues.

Strengths

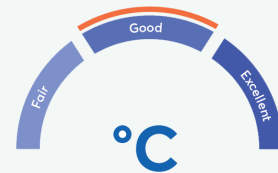
By improving material recovery for recycling and reuse, TOMRA's RVMs and waste sorting machines are an important contribution to the climate transition, a more circular economy, and improved waste management. TOMRA's plans to expand RVMs and sorting technologies to additional markets and materials has the potential to create positive impacts beyond the company itself. This includes both avoiding climate emissions from raw material extraction and end of life as well as preventing the harmful environmental, biodiversity, and human health impacts of plastic pollution and other waste.

SHADES OF GREEN



°CICERO
Dark Green

GOVERNANCE ASSESSMENT



GREEN BOND PRINCIPLES

Based on this review, this framework is found aligned with the principles.



TOMRA has significantly strengthened its sustainability strategies. While waste management and recycling are generally positive from a climate and environmental perspective, these processes and value chains can also create their own harmful emissions and impacts that are important to manage. We are encouraged to see TOMRA's robust climate mitigation, renewable energy, clean transportation, and sustainable materials targets and strategies, as well as its plans to report its climate emissions more comprehensively and strengthen its avoided emissions accounting methodology.

Pitfalls

TOMRA's business model, sustainability strategy, green bond framework, and policy advocacy is oriented towards improved waste management rather than waste prevention. While waste sorting that allows for improved recycling is positive, preventative measures should be prioritized first under a waste management hierarchy. Licensing effects are a risk, in that consumers may feel more comfortable initially generating waste knowing it will later be recycled rather than seeking waste-free alternatives. It is positive that TOMRA is exploring additional business opportunities related to the second waste hierarchy priority, reuse, such as reusable packaging collection systems. We encourage TOMRA to incorporate waste prevention into its outreach efforts, particularly related to public policy change, whenever possible.

Although TOMRA's products and services help avoid climate emissions beyond its value chain, its own Scope 3 emissions require additional mitigation measures. Fossil fuel-based energy is currently used during RVM and waste sorting machine operation, ground transportation of collected materials, and material recycling processes. Upstream emissions are also generated during the production of materials critical to RVM and waste sorting machine components, such as steel, aluminium, and electronics. We encourage TOMRA to continue to pursue its climate targets and strengthen its value chain engagement efforts on climate and other environmental issues.

While recycling and reusing plastics is positive compared to using new materials, incineration, or landfilling, plastics are derived from fossil fuel feedstocks. Even if plastics are collected by TOMRA and recycled by its partners, they typically require additions of new plastic materials during processing, maintaining links to fossil fuels. Where feasible, we encourage TOMRA to support alternatives to plastic.

TOMRA has not yet fully integrated physical climate risk, adaptation, and resilience into its processes and strategies. While TOMRA informs us that it believes these risks are likely to be low in the nearer term and notes forthcoming regulations may require additional disclosures, it has not yet undertaken a robust physical climate risk assessment. Physical climate risk assessment processes, risk management measures, targets, and reporting could be strengthened.



Contents

Executive Summary.....	1
<i>Strengths</i>	1
<i>Pitfalls</i>	2
1 TOMRA's environmental management and green bond framework	4
Company description	4
Governance assessment	4
Sector risk exposure	5
Environmental strategies and policies.....	5
Green bond framework	7
2 Assessment of TOMRA's green bond framework	9
Shading of eligible projects under TOMRA's green bond framework	9
3 Terms and methodology	13
'Shades of Green' methodology.....	13
Appendix 1: Referenced Documents List	15
Appendix 2: About CICERO Shades of Green	16



1 TOMRA's environmental management and green bond framework

Company description

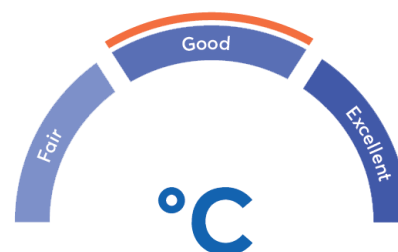
TOMRA is a Norwegian circular economy services and equipment manufacturing company. Founded in 1972, TOMRA has three main business areas:

- **TOMRA Collection** designs, manufactures, and supports the operation of reverse vending machines (RVMs) that enable automated used beverage container collection for 40 billion plastic, metal, and glass cans and bottles annually. In North America, it also provides pickup, transportation, and processing services as well as brokerage of sorted materials to recyclers.
- **TOMRA Recycling** develops, manufactures, and supports the operation of sensor-based sorting systems to allow for recycling, material upgrading, and sorting of ores, gemstones, and minerals.
- **TOMRA Food** designs, manufactures, and supports the operation of sensor-based food sorting and grading, including for fresh produce and processed foods.

Operating in over 80 markets and with over 100,000 installations, TOMRA had total revenues of NOK 10.9 billion and around 4,600 employees as of 2021. It is publicly listed on the Oslo Stock Exchange. Under its current strategy, TOMRA is seeking to double its revenues over the next five years, including through adjacent business opportunities such as reusable packaging collection systems and material sorting system applications for additional types of materials.

Governance assessment

TOMRA has committed to a net zero by 2050 target supported by nearer-term transportation emissions, renewable energy procurement, and avoided emissions goals. Its Scope 3 and nearer-term overall emissions targets are expected by 2024. TOMRA provides annual public reporting on progress and strategies but does not disclose in alignment with guidance from the Taskforce on Climate-Related Financial Disclosures (TCFD). TOMRA does not currently have clear physical climate risk assessment processes or climate adaptation and resilience strategies. Supplier screening and engagement on climate issues could also be strengthened, which TOMRA notes it plans to undertake in the coming years.



In terms of a selection process for projects eligible under the framework, TOMRA has developed a Green Bond Committee that will include members with environmental competence and veto power in final decision making. It is positive that in addition to framework criteria, TOMRA considers country-specific and social risks and undertakes integrity due diligence. Specific committee membership could be clarified to strengthen transparency.

TOMRA has committed to reporting publicly on allocation and impact on an annual basis. It has identified relevant impact indicators and plans to provide details on methodologies, including for avoided emissions. It is positive that TOMRA will follow external standards such as International Capital Markets Association (ICMA) guidance as well as the Nordic Public Sector Issuer's Position Paper on Green Bond Impact Reporting. We encourage TOMRA to undertake third-party review of both allocation and impact reporting and consider including impact reporting on more difficult to measure uses of proceeds, such as R&D, software improvements, and outreach and advocacy.



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

Sector risk exposure

Physical climate risks. Increasingly frequent extreme weather events, such as storms, flooding, or droughts, may impact TOMRA's facilities and operations. Transportation associated with material collection and distribution may also be disrupted. TOMRA Food's customers may be affected by droughts, heatwaves, and storms that can impact agricultural production.

Transition risks. Due to the profound changes needed to limit global warming to well-below 2°C, transition risk affects all sectors. TOMRA is exposed to transition risks from stricter climate policies that may increase the costs of waste management processes and collection and distribution transportation that rely on fossil fuels. Whether through policy or consumer behaviour changes, a greater emphasis on waste prevention, rather than recycling and recovery, to avoid emissions could also impact demand for TOMRA's products.

Environmental risks. While recycling and material recovery has many benefits, these processes can also create local pollution and community health risks. Sorting of ores, gemstones, and minerals as well as food products may be linked to unsustainable mining or agricultural impacts upstream, including local pollution as well as landscape degradation and biodiversity impacts.

Environmental strategies and policies

As of 2021, TOMRA reported 30,000 tonnes of carbon dioxide equivalent (tonnes CO₂e) in direct emissions and 109,000 tonnes CO₂e in total emissions. This was a 7% reduction in direct emissions compared to 2020 (32,400 tonnes CO₂e) and a less than 1% increase in total emissions (108,000 tonnes CO₂e in 2020).

- Major Scope 1 emissions sources in 2021 included petrol, diesel, and compressed natural gas (CNG) vehicles (16,600 tonnes CO₂e) and stationary sources such as heating oil, natural gas, and propane (700 tonnes CO₂e).
- Scope 2 emissions from purchased electricity calculated using a market-based approach were 6,100 tonnes CO₂e in 2021.
- Scope 3 emissions reported included smaller categories such as employee vehicles (2,900 tonnes CO₂e) and air travel (3,700 tonnes CO₂e) but were primarily from the use phase of RVMs and sorters owned by TOMRA and its customers that were 79,100 tonnes CO₂e in 2021. TOMRA does not currently report on Scope 3 emissions related to upstream raw material extraction, processing, and production, but plans to report on these and all other value chain emissions sources by 2024 as part of its Science-Based Targets commitments described below.

TOMRA notes that Scope 1 emissions remained relatively steady between 2020-2021, while Scope 2 emissions declined primarily due to a reduction in TOMRA Collection North America emissions, where several redemption centres closed. TOMRA's operational eco-intensity, which it measures as tonnes CO₂e direct emissions (Scopes 1 and 2 as well as Scope 3 business travel) divided by million NOK value added to society¹, also declined 16%

¹ TOMRA defines value added to society as the sum of salaries, dividends, taxes, financial expenses, minority interest, and retained profits.



between 2020 and 2021, continuing an overall decreasing trend since 2018. According to the company, this reflected a 7% decrease in direct emissions and a 10% increase in value added between 2020-2021.

TOMRA estimates that use of its products in 2021 led to 19,440,000 avoided tonnes CO₂e but notes this is not based on full lifecycle analysis. It calculates its avoided emissions based on number of installed machines, processing volumes, and emissions factors that consider both upstream and downstream impacts, including alternatives of using new materials or end-of-life disposal. TOMRA informs us that it is planning to review and potentially update its avoided emissions methodology in the next one to two years to further improve the accuracy of its estimates.

TOMRA has four main climate and energy targets:

- Achieving net zero emissions by 2050. In 2022, TOMRA committed to setting near- and long-term targets through the Science-Based Targets Initiative (SBTi) and will seek validation of its targets and reduction pathway by 2024. Its net zero roadmap and action plan are currently under development and will be incorporated into future sustainability reporting.
- Reducing operational transport emissions by more than 80% by 2030. As of 2021, these emissions were 16,600 tonnes CO₂e. Implementation plans include fleet decarbonization, investing in digital solutions for remote assistance and monitoring, and optimizing logistics and routes.
- Procuring 100% renewable electricity by 2030. In 2021, TOMRA reported emissions from purchased electricity of 6,100 tonnes CO₂e globally. Strategies to achieve its renewable energy target will include on-site renewable energy generation, long-term renewable energy power purchase agreements (PPAs), and green tariffs.
- Doubling avoided emissions enabled by TOMRA products by 2030 compared to a 2019 baseline of 17 million tonnes CO₂e. TOMRA reported 19.5 million tonnes CO₂e in avoided emissions in 2021, with strategies focused on expanding collection and sorting solutions that can reduce emissions compared to new production with raw materials, diversion to landfill, or incineration.

In its products, TOMRA aims to:

- Use at least 90% sustainable (e.g., recycled, certified fossil-free, bio-based, or reused) materials and components on average by weight in all new products by 2030.
- Ensure at least 50% of products are circular at end-of-life by 2030, allowing for refurbishment, remanufacture, reuse, or recycling.

TOMRA completed lifecycle assessments for three types of its machines in September 2022, which identified reducing energy consumption during the use phase as the most promising opportunity to decrease climate emissions. Components made of steel and aluminium as well as electronics contributed the most to emissions impacts during machine production. These findings will inform future research and design processes to help TOMRA achieve its emissions targets.

TOMRA has also committed to contributing to two circular economy aspirations for the broader waste management and recycling landscape. While TOMRA will not achieve these goals on its own, it plans to take steps in collaboration with policymakers and other stakeholders to work towards them. These include:

- Enabling the global rate of plastic packaging collected for recycling to reach 40%, with 30% closed loop recycling (i.e., into a similar product, such as a used plastic bottle into a recycled plastic bottle, without significant degradation or waste) from current baselines of 14% and 2%, respectively.
- Collecting 500 billion used beverage containers annually for clean loop recycling (i.e., closed loop recycling without contamination by other types of waste, such as bottle deposit return systems) compared to 42 billion as of 2021.



According to TOMRA, it believes its physical and transition climate risks are relatively low through the medium term. It does not currently have any targets related to climate adaptation or resilience, report according to the guidance of the Taskforce on Climate-Related Financial Disclosures (TCFD), or undertake formal climate risk assessments or climate scenario analyses. TOMRA anticipates strengthening its risk assessment, management, and reporting, including for climate risks, over the next two to three years in response to increasing regulatory requirements.

TOMRA's sustainability work is led by its Group Sustainability function in partnership with the Group Strategy and Business Development teams and with oversight from a Corporate Sustainability Board Committee. It has a Code of Conduct for employees and a Code of Conduct and Business Principles for Suppliers & Partners, which include human rights, workers' rights, safety, ethics, and environmental protection. TOMRA's three divisions have additional sustainability considerations for supplier evaluation, but these are not yet weighted in final selection decisions. Efforts are underway to standardize supplier sustainability criteria, set targets for supplier screening, engagement, and audits across the organization, and increase value chain collaboration.

TOMRA is a member of the UN Global Compact (UNGC) and reports annually according to UNGC guidelines and informed by Global Reporting Initiative (GRI) standards. It is also a member of the World Business Council on Sustainable Development (WBCSD), Global Agribusiness Action for Equitable Livelihoods project focusing on addressing post-harvest food loss, and the Alliance to End Plastic Waste (APEW), where it serves on the executive committee.

Green bond framework

Based on this review, this framework is found to be aligned with the Green Bond Principles. For details on the issuer's framework, please refer to the green bond framework dated October 2022.

Use of proceeds

For a description of the framework's use of proceeds criteria, and an assessment of the categories' environmental impacts and risks, please refer to section 2.

Selection

TOMRA's Green Bond Committee will meet at least annually to review projects and assets proposed by relevant business units for eligibility against the framework criteria. Green Bond Committee membership has not yet been finalised, but will include sustainability and financial team representatives, some of whom will have environmental expertise. Decisions will be made on a consensus basis. In addition to framework criteria, TOMRA will conduct screenings to assess country-specific and social risks and undertake integrity due diligence.

Management of proceeds

Green bond proceeds are tracked by the issuer through a green bond register. Proceeds will be managed on a portfolio basis, and TOMRA will maintain assets and projects in the green bond register at least equal to aggregate net proceeds of outstanding green bonds. In instances where net proceeds exceed eligible assets and projects in the green bond register, the excess will be placed in an ordinary bank account or short-term money market, avoiding on a best-effort basis any investments excluded under the framework (see section 2 below). The issuer informs us that the Green Bond Committee will review projects on an annual basis to ensure continued alignment with framework criteria.

Reporting

TOMRA will provide annual allocation and impact reporting on its website for green bonds issued under the framework. This process will be led by its treasury department in collaboration with its sustainability team and



other functions. It will seek to align its reporting with International Capital Markets Association (ICMA) guidance as well as the Nordic Public Sector Issuer's Position Paper on Green Bond Impact Reporting. A decision has not yet been taken on whether to report bond by bond or on an aggregated basis.

Allocation reporting will cover total outstanding green bonds, allocated vs. unallocated proceeds by category, and the share of financing vs. refinancing, as well as descriptions and case studies of selected assets and projects.

Impact reporting may be on an aggregated basis or by project sub-category and will include:

- Reverse vending machines installed
- Beverage containers collected
- Amount and share of material recovered and recycled
- Net climate emissions avoided
- Installed capacity of renewable energy financed
- Reductions in operational transport emissions
- Details on methodologies, baselines, and assumptions used in calculations

TOMRA may engage a third-party auditor to review its allocation reporting, but this has not yet been decided. It will not seek an external review of its impact reporting.




2 Assessment of TOMRA’s green bond framework

The eligible projects under TOMRA’s green bond framework are shaded based on their environmental impacts and risks, based on the “Shades of Green” methodology.

Shading of eligible projects under TOMRA’s green bond framework

- Proceeds will be used to finance or re-finance, in whole or in part, projects eligible under the framework, with a look-back period of three years. Allocation is expected to be about half financing and half refinancing.
- There will be an initial emphasis on the beverage containers sub-category, followed by the recovery and upgrading of materials for recycling sub-category. The expenditures in connection with minimizing the carbon footprint of operations sub-category are expected to be a smaller use of proceeds. We note that some activities in this third sub-category classified by the issuer as Pollution Prevention and Control would fall under the ICMA Green Bond Principles categories of renewable energy and clean transportation.
- Allocation will primarily be to CAPEX, with some OPEX related to R&D as well as public affairs advocacy for beverage container deposit systems and improved waste management and recycling practices. Proceeds may also be used for TOMRA-produced RVM raw materials and components.
- Explicit exclusions include assets related to the production, storing, or transportation of fossil fuels, nuclear energy production, weapons or defence, potentially harmful resource extraction, gambling, tobacco, or other drugs. Assets that do not comply with TOMRA’s investment policy or internationally recognized frameworks including the UN Global Compact are also ineligible.

Category	Eligible project types	Green Shading and considerations
Pollution prevention and control 	Expenditures in connection with the collection, sorting and processing of beverage containers: <ul style="list-style-type: none"> • Manufacturing, installation, maintenance, and operation of reverse vending machines owned by TOMRA and related infrastructure • Production of high-tech sensors for reverse vending machines • Facilities for sorting and processing of plastic-, glass- and aluminium-containers and related infrastructure • Research and development expenditures related to the development and design of reverse vending machines 	Dark Green ✓ Circular solutions involving improved plastic, aluminium, and glass waste management and recycling are an important contribution to a low carbon future. By reducing upstream demand for raw material extraction through high levels of material recovery in clean loop recycling as well as preventing downstream waste from going to directly to landfill or incineration, RVM solutions have the potential to limit climate emissions, local pollution, and harmful biodiversity impacts. Beyond climate emissions, these systems that support collecting and recycling plastic bottles have the potential to alleviate the significant harmful impacts of plastic pollution on wildlife and ecosystems as well as human health.



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- Development and maintenance of operating software for reverse vending machines
 - Development of and expenditures related to collection systems for reusable packaging or other systems enabling the reduction of plastic waste
 - Outreach to raise awareness regarding circularity and build regulatory support for establishing Deposit Return Schemes
- ✓ At the same time, be aware that recycling undertaken by TOMRA's downstream partners entails energy consumption, emissions, and discharges to the environment that require mitigation strategies. Note that waste prevention should be prioritized in the waste hierarchy. Consider potential licensing effects that could increase beverage consumers' comfort with generating waste rather than pursuing potential waste prevention options knowing that bottles and cans will then be recycled, which is ranked in third place in the waste hierarchy after waste prevention and reuse. Eligible projects involving the collection of containers and packaging to allow for reuse are positive steps to move up the waste hierarchy, particularly for plastic, a material derived from fossil fuel feedstocks that can only be recycled a limited number of times.
 - ✓ Be aware that fossil fuels may be used across RVM value chains and operations, creating associated climate impacts from TOMRA and its partners. For projects eligible under this framework, emissions may be generated from energy used during sensor production and RVM assembly and operation (where electricity is not yet 100% renewable) as well as during ground transportation of technicians installing and servicing machines (primarily fossil gasoline). The issuer informs us that operating costs associated with fossil fuel purchasing are not eligible under this framework. TOMRA has strong climate goals that will address many of these concerns if achieved. Fossil fuels may also be used by TOMRA's partners during RVM component manufacturing (e.g., steel, aluminium, electronics) and transportation and processing of materials after collection, though transportation distances are generally minimized to reduce costs.
 - ✓ According to the issuer, research and development and software investments will not necessarily be focused on improving the environmental impacts of the RVMs themselves but will support their effective operation and associated waste management benefits.
 - ✓ Note that outreach to raise awareness will focus on improved waste management and recycling related to TOMRA's core business model rather
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than waste prevention, which should be prioritized in a waste management hierarchy. We encourage TOMRA to incorporate waste prevention into its outreach, particularly related to public policy changes, to ensure alignment with hierarchy principles. According to the issuer, activities could include engaging in consultations on deposit system best practices, commissioning related studies and white papers, and participating in multi-company partnerships with relevant goals. The issuer informs us that that it does not engage in direct or indirect sponsoring of political parties, and those activities are therefore excluded.

Pollution prevention and control



Expenditures in connection with the recovery and upgrading of valuable materials from waste streams for recycling purposes:

- Development and maintenance of operating software for waste sorting machines
- Assembly-lines for the manufacturing of sorting machines
- Research and development expenditures which aim to improve sorting accuracy and efficiency, flexibility, or enable sorting of new types of waste materials (e.g., textiles)
- Investments in the sorting and processing of post-consumer materials with the purpose of using such materials in a recycling process

Dark Green

- ✓ Material recovery through TOMRA's waste sorting solutions can help facilitate recycling by TOMRA's partners, which in turn can reduce emissions by limiting demand for raw materials and avoiding landfilling or incineration.
- ✓ As above, the issuer informs us that R&D and software investments will not necessarily reduce the environmental footprint of the waste sorting machines themselves but will support their effective operation and associated waste management benefits, such as extending their use to new types of materials.
- ✓ Investors should be aware that assembly lines to manufacture sorting machines are primarily powered by electricity, which may not be renewable, as well as smaller amounts of heating oil, propane, and natural gas. The issuer informs us that operating costs associated with fossil fuel purchasing are not eligible under this framework. TOMRA has positive renewable energy procurement goals, but some fossil fuel-based electricity may be used in these processes until they are achieved. Other fossil fuel use risks by TOMRA or its partners are similar to those noted for RVMs above (i.e., energy used during machine component manufacturing, machine operation, material and technician transportation, and recycling processes).



Pollution prevention and control



Expenditures in connection with minimizing the carbon footprint of operations:

- Procurement and installation of equipment to produce renewable energy (e.g., rooftop or wall-mounted solar-PV panels and related equipment)
- Clean transportation investments (e.g., battery electric vehicles, vehicles which run on green hydrogen, charging infrastructure for electric vehicles, etc.)
- Investment in R&D to increase the use of sustainable materials – including recycled, certified fossil-free, and bio-based materials and reused, refurbished, or remanufactured machine components – in TOMRA products

Dark to Medium Green

- ✓ Renewable energy such as building-integrated solar is well-aligned with the low carbon transition. The issuer informs us that it has not yet determined whether other renewable energy sources and/or standalone renewable energy installations will be potential uses of proceeds. Investors should be aware of risks related to other renewable energy sources (e.g., lifecycle emissions, materials sourcing, resilience considerations) as well as potentially greater local biodiversity and community impacts of standalone renewable energy installations.
- ✓ Clean transportation options such as battery electric and green hydrogen vehicles and charging infrastructure are important contributions to climate mitigation. According to the issuer, hybrid vehicles running on fossil gasoline will not be eligible under the framework. Vehicles running on waste-based biofuels compliant with the EU Renewable Energy Directive II (RED II) could be included. Be aware of biofuel lifecycle emissions concerns depending on feedstock sources and transportation distances. Also note the potential for valorisation of waste streams from unsustainable production that may be linked with direct or indirect land use change emissions. Biofuel aspects are therefore shaded Medium Green.
- ✓ Investments in more sustainable materials R&D is a positive step. Investors should be aware that definitions and certifications of these materials are somewhat unclear and do not have associated quantitative performance improvement thresholds. TOMRA informs us that it is undertaking lifecycle analyses to better understand baseline performance of current materials and alternative material viability and potential environmental benefits.

Table 1. Eligible project categories









3 Terms and methodology

This note provides CICERO Shades of Green’s second opinion of the client’s framework dated October 2022. 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 Shades of 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.

‘Shades of Green’ methodology

CICERO Shades of 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:

Shading	Examples
 Dark Green is allocated to projects and solutions that correspond to the long-term vision of a low-carbon and climate resilient future.	 Solar power plants
 Medium Green is allocated to projects and solutions that represent significant steps towards the long-term vision but are not quite there yet.	 Energy efficient buildings
 Light Green is allocated to transition activities that do not lock in emissions. These projects reduce emissions or have other environmental benefits in the near term rather than representing low carbon and climate resilient long-term solutions.	 Hybrid road vehicles

The “Shades of Green” methodology considers the strengths, weaknesses and pitfalls of the project categories and their criteria. 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, including potential macro-level impacts of investment projects.

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 Shades of Green considers four factors in its review of the client’s governance processes: 1) the policies and goals of relevance to the green bond 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.



Assessment of alignment with Green Bond Principles

CICERO Shades of Green assesses alignment with the International Capital Markets' Association's (ICMA) Green Bond Principles. We review whether the framework is in line with the four core components of the GBP (use of proceeds, selection, management of proceeds and reporting). We assess whether project categories have clear environmental benefits with defined eligibility criteria. The Green Bonds Principles (GBP) state that the “overall environmental profile” of a project should be assessed. The selection process is a key governance factor to consider in CICERO Shads of Green's assessment. CICERO Shades of 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 Shades of Green places on the selection process. CICERO Shades of Green assesses whether net proceeds or an equivalent amount are tracked by the issuer in an appropriate manner and provides transparency on the intended types of temporary placement for unallocated proceeds. Transparency, reporting, and verification of impacts are key to enable investors to follow the implementation of green finance programs.



Appendix 1: Referenced Documents List

Document Number	Document Name	Description
1	TOMRA Green Bond Framework	TOMRA's green bond framework dated October 2022
2	TOMRA Annual Report 2021: Form into Transformation	TOMRA's 2021 annual and sustainability report
3	TOMRA Code of Conduct	TOMRA's employee code of conduct
4	TOMRA Business Principles for Suppliers and Partners	TOMRA's supplier code of conduct
5	TOMRA's commitment to human rights	TOMRA's website on human rights policies and processes
6	TOMRA Investor Presentation	TOMRA's investor presentation from 15 July 2022



Appendix 2: About CICERO Shades of Green

CICERO Shades of 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 Shades of Green.

CICERO Shades of Green provides second opinions on institutions' frameworks and guidance for assessing and selecting eligible projects for green bond investments. CICERO Shades of Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Shades of 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 Shades of 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, the International Institute for Sustainable Development (IISD) and the School for Environment and Sustainability (SEAS) at the University of Michigan.

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- ★ **2021 Largest External Reviewer**, Climate Bonds Initiative Awards
 - ★ **2020 External Assessment Provider Of The Year**, Environmental Finance Green Bond Awards
 - ★ **2020 Largest External Review Provider In Number Of Deals**, Climate Bonds Initiative Awards
 - ★ **2019 External Assessment Provider Of The Year**, Environmental Finance Green Bond Awards
 - ★ **2019 Largest Green Bond SPO Provider**, Climate Bonds Initiative Awards
 - ★ **2018 External Assessment Provider Of The Year**, Environmental Finance Green Bond Awards
 - ★ **2018 Largest External Reviewer**, Climate Bonds Initiative Awards
 - ★ **2017 Best External Assessment Provider**, Environmental Finance Green Bond Awards
 - ★ **2016 Most Second Opinions**, Climate Bonds Initiative Awards