



**GREEN BOND FRAMEWORK**  
**OCTOBER 2022**



## ABOUT TOMRA

TOMRA was founded in 1972, based on the design, manufacturing, and sale of reverse vending machines (RVMs) for automated collection of used beverage containers. Today TOMRA provides technology-led solutions that enable the circular economy with advanced collection and sorting systems and optimize food processing by employing sensor-based sorting and grading technology.

Altogether TOMRA has over 100,000 installations in over 80 markets worldwide and had total revenues of about 10.9 billion NOK in 2021. The geographic footprint covers all continents, and the solutions provided are increasingly relevant for serving sustainable societies.

The TOMRA Group employs 4,600 people globally and is publicly listed on the Oslo Stock Exchange.

## TOMRA Collection

With an installed base of over 80,000 machines in over 60 markets, TOMRA Collection is the world's leading provider of reverse vending solutions. Every year, TOMRA enables the collection of more than 40 billion empty cans and bottles and provides retailers and other customers with an effective and efficient way of collecting, sorting, and processing these containers.

TOMRA Collection material recovery business includes the pickup, transportation, and processing of used beverage containers in North America, as well as the subsequent brokerage of the processed material to recyclers.



## TOMRA Recycling

TOMRA Recycling has pioneered the use of sensor-based technology for automating the recovery and recycling of valuable resources. The flexible sorting systems perform an extensive range of sorting tasks and can sort various types of materials and minerals with the purpose of preparation for recycling, material upgrading, as well as sustainable sorting of ores, gemstones, and minerals.

Sensor-based sorting technology is critical to reducing the dependency on primary raw materials and mitigating the environmental impact caused by landfills and incineration of waste.

Currently TOMRA Recycling has an installed base of over 8,000 units across more than 40 markets.



## TOMRA Food

TOMRA Food is the leading provider of sensor-based sorting and grading technology for the food industry. In the developing world, there is a need for more automation within food processing. In developed markets, the emphasis is on food quality, productivity, and hygiene.

TOMRA is positioned to serve customers in both the fresh produce sector (such as fruits and berries) and processed food (such as nuts, potatoes, vegetables).

With close to 13,000 installations globally, TOMRA's food business is instrumental in optimizing food utilization, safety, and quality.



## LEADING THE RESOURCE REVOLUTION

TOMRA started as a technology pioneer and for 50 years has advanced sustainable practices and better use of resources. **Sustainability is at the core of what we do.** We stand highly relevant in a world that needs technology, innovation, and investment to reach net-zero carbon emissions by mid-century. A key factor in low-carbon growth will be a decoupling from resource use, which sets the pace for a sustainable society. This is where TOMRA can add value, by transforming how we all obtain, use, and reuse the planet's resources to enable a world without waste.

### Deposit Return Systems

Our reverse vending technology provides an efficient collection and handling system for deposit of beverage containers. Our activities include the development, production, sale, lease, and service of automated collection systems, including



data structures that monitor the volume of collected materials and associated transactions.

Despite the documented advantages of a deposit system, only a limited number of markets have implemented deposit schemes.

In recent years, an emerging driver for the discussion around deposit schemes has been the regulatory push to see reduced littering. One such initiative is the EU Single Use Plastic Directive, which establishes a collection target of 77% on beverage containers made of plastic by 2025, increasing to 90% in 2029.

As a response to the increased collection targets, several EU members are currently evaluating the introduction of deposit systems as this is viewed as the most efficient way to significantly increase collection rates.

TOMRA's business model in most markets is focused on the sale and servicing of equipment. Deposit models in some markets such as the ones introduced in Lithuania, New South Wales, Queensland, Western Australia, and more recently, Latvia, invite the technology supplier into the system. In these models, the machine provider acts as an operator that invests and maintains the ownership in the machine park and receives a fee for the volume collected through the installed infrastructure.

Growth is consequently driven by new deposit markets. There are currently several processes ongoing and deposit introduction is being discussed in many markets. As the leader within reverse vending, TOMRA should however be in a good position to monetize on the opportunities, when they arise. In meeting these opportunities, TOMRA will need to invest in people, capabilities, technology, and infrastructure.

### Recovery and upgrade of material for recycling

The resource-efficient economy will need a shift in mindset when it comes to the planet's scarce resources: nothing is wasted and natural resources are managed sustainably, with biodiversity being protected, valued, and restored in ways that

enhance society's resilience. Or in other words, what we call waste today needs to be viewed as a resource to build a sustainable future.

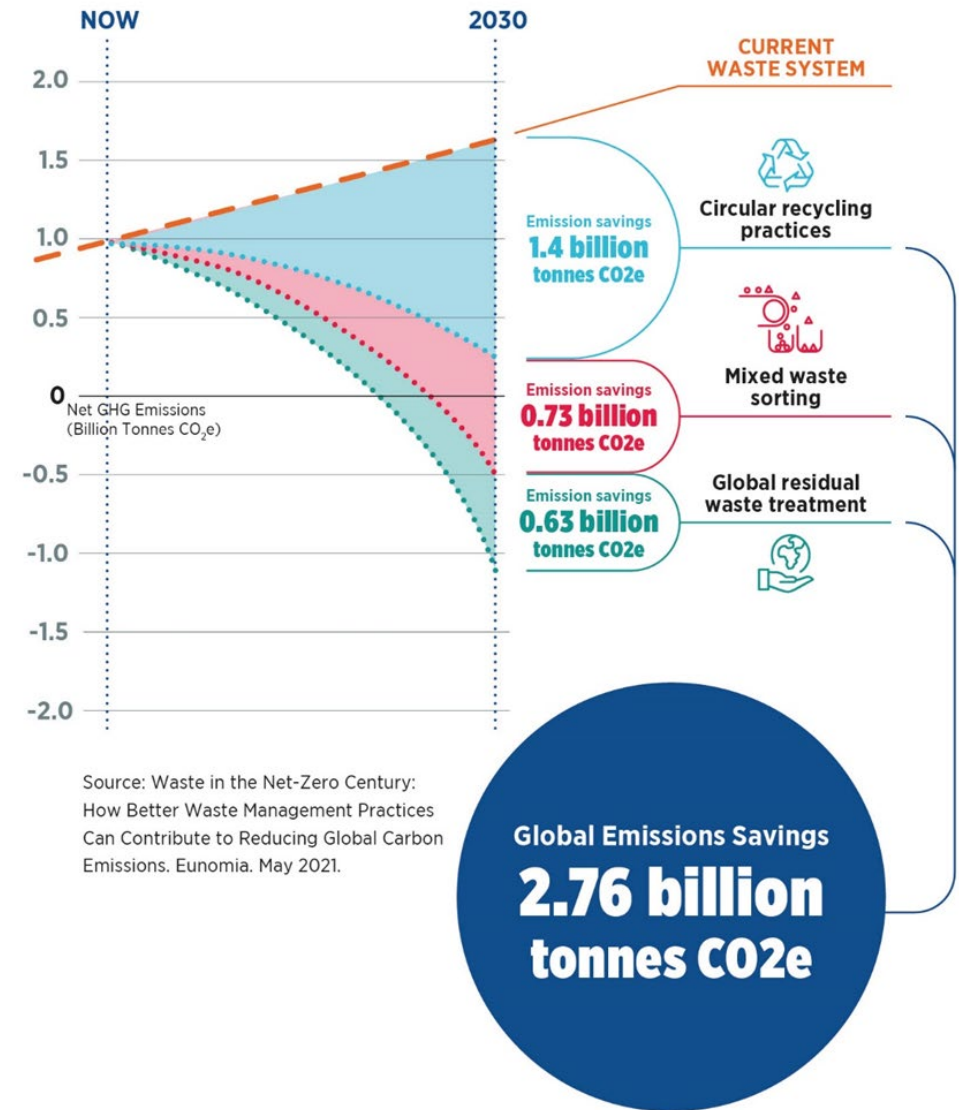
Waste generation rates are influenced primarily by economic development and the degree of industrialization and urbanization. Generally, the higher the economic development and rate of urbanization, the greater the amount of waste produced. According to research from the World Bank, global solid waste generation is expected to increase by 70% from 2.0 billion tons in 2016 to 3.4 billion tons in 2050.

Legislative measures focusing on waste reduction and reuse of resources continue to be implemented. In addition, the market demand for high-quality recycled material has been fuelled by commitments from brand owners to fulfil their sustainability goals on recycled content in packaging. The momentum in recycling has been increasingly positive.

Within recycling, we serve primarily the waste management sector and the plastic and metal recycling markets. Our offering brings meaningful economic and environmental benefits by increasing productivity, yield, access to resources and reducing costs. We are well positioned to respond to short and long-term increases in the resource demands for an ever growing and urbanized global population in a less carbon intense society.

According to the study Holistic Resource Systems, a whitepaper published by us together with Eunomia, deploying current best practices in waste management at a global scale has the potential to reduce global carbon emissions by approximately 2.8 billion tons per year. It is achievable with existing technologies and proven systems - yet arriving there is not straightforward. As timelines are getting shorter, the need to act is ever more pressing.

Going forward, establishing circular economy solutions, and increasing recycling rates will comprise wider and higher quality collection solutions, upgraded downstream processing, as well as closer collaboration with converters and brand owners.



## Innovation and technology

We launched the first ever 360-degree recognition system applied inside a reverse vending machine (RVM). This enabled faster and cleaner collection of beverage containers, including containers that previously could not be collected in RVMs. The range has later been further broadened, with TOMRA R1 being the latest innovation. TOMRA R1 is a multi-feed RVM allowing consumers to pour in entire bags of containers in one go, offering an up to five times faster return experience.

We continue to invest in building a digital ecosystem around the RVMs, using the data collected through the installed infrastructure. The majority of the installed base is connected to a digital platform, where standardized and scaled API offerings and digital pay-out solutions enable third party development and accelerate the digitalization of the customer experience.

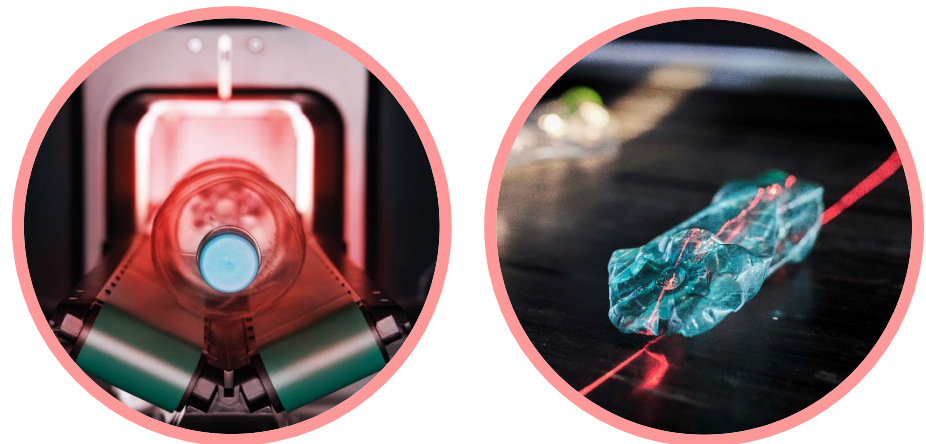
In 2020 we launched the new generation of AUTOSORT®, our flagship sorter which delivers increased performance in terms of accuracy across all target fractions and improves operational efficiency; As part of the focus to enhance digital capabilities, we are investing into the area of artificial intelligence (AI) and machine learning. The new generation of AUTOSORT® uses artificial intelligence, thus making it one of the few fully integrated deep learning systems on the market.

We have advanced the offering for the global wood recycling sector by pioneering the use of deep learning, a subset of artificial intelligence, in wood recycling applications. TOMRA has been a frontrunner in the global wood recycling sector for more than 10 years. With trained neural networks, sorting software based on deep learning, it is possible for the first time to detect, analyse, and sort different wood grades.

Within textile recycling, we delivered sorting technology for the first fully automated sorting plant which sorts pre- and post-consumer mixed textile waste in southern Sweden. The plant is part of the Swedish Innovation Platform for Textile Sorting government-funded project, which aims to develop a sorting solution tailored to the needs of textile recyclers and the garment industry.

To further optimize the output quality of every sorting process, TOMRA has established a web-based, real-time monitoring platform, TOMRA Insight, that turns sorters into connected devices to generate valuable data and process it into actionable information.

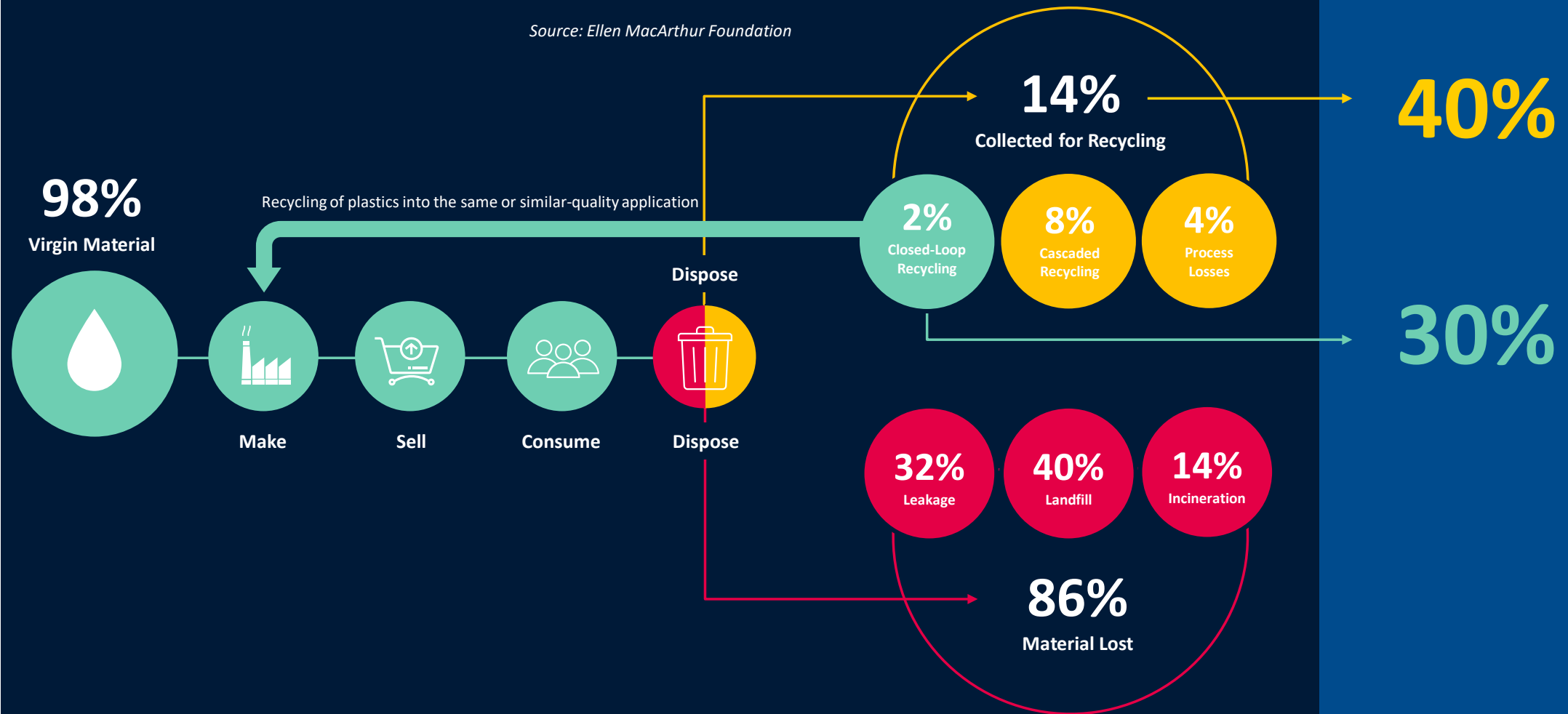
This unique position in the industry allows us to capitalize on scaling technology and operations to serve customers with a broader offering and further increase resource productivity across the sectors that we serve.



# Today: Post-Consumer Plastic Packaging is Treated Linear Instead of Circular

Source: Ellen MacArthur Foundation

Our Ambition:





## SUSTAINABILITY AT TOMRA

Sustainability is deeply embedded in our vision, mission, and company culture. Our products deliver environmental benefits in terms of better resource utilization and diverting waste from ending up in nature. Our ambition at TOMRA is to be **leading the Resource Revolution**, while **becoming a fully circular business** and **being safe, fair, and inclusive**. By this, we are committing to both increase our “handprint” – by growing the company and the positive sustainability impacts of our business; and to reduce our “footprint” – working hard to minimize any negative impacts across our entire value chain.

To focus our sustainability agenda and direct efforts where they matter most, TOMRA has outlined five strategic focus areas for sustainability action:

**Resource Productivity:** We work to transform how we obtain, use, and reuse the planet’s resources to enable a world without waste.

**Climate Impact:** We work to reduce GHG emissions along our entire value chain – adopting a science-based approach to ensure corporate efforts in line with achieving the global target of well below 2°C warming, pursuing 1.5°C.

**Sustainable Product Design:** We work to optimize the environmental impact of our products across their lifecycle and innovate to improve product circularity.

**Employee Value Proposition:** We put our people first, keep each other safe and thrive on the diversity of our culture

**Supply Chain Sustainability:** We work with our partners to sustainably transform our supply chain – minimizing environmental impact in a socially and ethically responsible way.

Furthermore, we have developed a holistic set of sustainability targets covering all five focus areas. Several of these targets directly link to the activities proposed for green bond financing within this framework, and are designed to maximize environmental benefits:

### Resource Productivity

- *By 2030, at least double the avoided emissions enabled by TOMRA products in use.*

Through both our Collection and Sorting solutions, TOMRA products enable the avoidance of greenhouse gas emissions. When more materials like plastics or metals are recycled, it significantly reduces their embedded carbon intensity, both at production stage (less virgin/raw material input) and in waste management (diverted from landfill or incineration). In 2021 the avoided carbon emissions from TOMRA products in use by customers was close to 19.5 million tonnes of CO2 equivalents (up from 17 million tonnes in baseline year 2019), equal to about 40% of Norway’s greenhouse gas emissions in 2020.

- *By 2030, enable the global rate of plastic packaging collected for recycling to reach 40%, and 30% closed loop recycling.*

‘Closed loop recycling’ means is a process through which a manufactured good is recycled back into the same or similar product without significant degradation or waste. Actions required to meet this target relate closely to the overall business growth and strategy implementation efforts of TOMRA Recycling. It is important to emphasize though that TOMRA will not reach this target on our own. This will require partnerships and collaboration across the recycling value chain.

- *Collect 500 billion used beverage containers annually for Clean Loop Recycling*

Actions required to meet this target relate closely to the overall business growth and strategy implementation efforts of TOMRA Collection. In 2021, more than 42 billion used beverage containers were collected for recycling through TOMRA's 81.000 RVM installations. Beverage containers recycled through reverse vending machines (RVM) are collected and sorted without contamination from other types of waste. This ensures that they can be recycled into new bottles and cans again and again.

### Climate impact

- *TOMRA commits to achieve net-zero greenhouse gas emissions before 2050 and setting Science Based Targets for near- and long-term emissions reduction*

Commitment to the Science Based Targets initiative (SBTi) requires TOMRA to establish, verify, and annually report progress on both near- and long-term, direct (scope 1+2) and indirect (scope 3), emission reduction targets. We signed the SBTi commitment letter in June 2022 and will submit our targets and emission reduction pathway plan for external validation in line with the SBTi Corporate Net Zero Standard, before June 2024.

- *By 2030, reduce operational transport emissions by more than 80% by 2030 (Scope 1)*

Operational transport covers all vehicles owned or leased by TOMRA including, but not limited to, company cars, service vehicles, and material recovery trucks. Target implementation efforts, initiated or planned, include fleet decarbonization, further developing and adopting digital solutions for remote assistance and product monitoring, and working across divisions to optimize logistics and route planning.

- *By 2030, procure 100% renewable electricity (Scope 2)*

Available mechanisms to achieve this target include, but are not limited to, on-site RE generation, long-term Power Purchase Agreements (PPAs), and green tariffs. TOMRA will strive to address most of our Scope 2 emissions through on-site generation or PPAs.

### Sustainable product design

- *By 2030, use at least 90% sustainable materials and components in all new products (on average by weight)*

Sustainable materials and components are defined as using recycled, certified fossil-free, and/or bio-based materials, and reused, refurbished, or remanufactured machine components. As part of the implementation roadmap for this target sub- and interim targets for specific material types will be developed. Work is being done to establish the status and baseline for sustainable materials use in TOMRA products.

- *By 2030, at least 50% of our products are circular at their end of life*

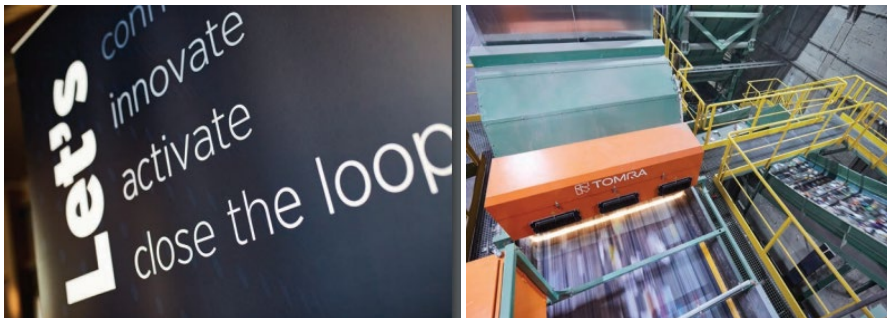
Circular at end of life means that machine parts are taken back for refurbishment, remanufacture, reuse or recycling, either directly by TOMRA or via third parties. Work is being done to establish a baseline of current end-of-life (EOL) practices in TOMRA and develop a hierarchy of EOL management options depending on local infrastructure and market situation.



## TOMRA's Commitment to the UN Sustainable Development Goals

TOMRA is fully committed to delivering on the UN Sustainable Development Goals (SDGs). As “leaders of the Resource Revolution,” sustainable development is at the core of our business model and strategy. TOMRA is a solutions provider in the necessary transition to a resource-efficient, low-carbon economy. With increasing demand for sustainable products and solutions there are opportunities for us to deliver significant positive impacts across several of the SDGs. An assessment of our activities reveals one SDG in particular, where our contribution delivers the most impact: **SDG 12 - Responsible consumption and production**.

Sustainable consumption and production – aims at “doing more and better with less.” TOMRA’s vision of “leading the Resource Revolution” and our mission “to create sensor-based solutions for optimal resource productivity,” fit squarely within this agenda. All our business units deliver positive impact on several of the SDG 12 sub-targets, including: Sustainably manage natural resources; reduce food waste and food loss; prevent and reduce waste through recycling and reuse; partnerships and education for sustainable development and lifestyles in harmony with nature.



Other SDGs where TOMRA delivers positive impact through our products and services include:

**SDG 11:**  
Sorting solutions for sustainable waste management

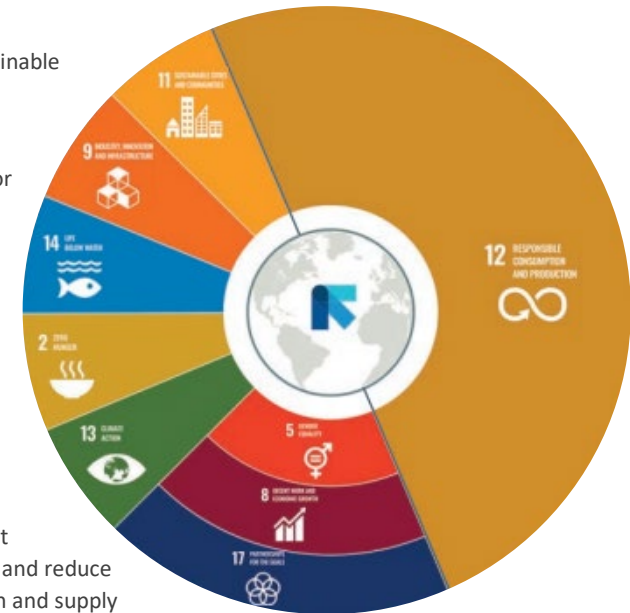
**SDG 9:**  
Technology innovations for sustainable waste management

**SDG 14:**  
Turning off the tap on land for plastic pollution through collection systems and closed loop recycling

**SDG2:**  
Food sorting solutions that increase agricultural yield and reduce food loss along production and supply chains.

**SDG13:**  
Avoiding carbon emissions from both material production and waste management through collection and sorting solutions for recycling.

**SDGs 5, 8 and 17:**  
are supporting, crosscutting goals where we strive to have a positive impact through the way that we work. At TOMRA we consider delivering on these SDGs as part of our “license to operate”



## GREEN BOND FRAMEWORK

TOMRA's mission is to transform how we all obtain use and reuse the planet's resources to enable a world without waste. The purpose of this Green Bond Framework ("the framework") is to align the company's sustainability ambitions with its financing solution. The framework is based on the 2021 version of the Green Bond Principles published by the International Capital Markets Association.

This framework defines projects and assets that are eligible for financing or refinancing by proceeds of Green Bonds issued by TOMRA. The process for selection and reporting on eligible assets and projects, as well as the organization on management of proceeds, are further outlined below.

### USE OF PROCEEDS

The net proceeds of the Green Bonds issued by TOMRA will be used to finance or re-finance in whole or in part, Eligible Projects and Assets that have been evaluated and selected by TOMRA in accordance with this framework. Refinancing of Eligible Projects and Assets will have a look-back period of no more than 3 years from the time of issuance.

### EXCLUSIONS

Net proceeds from Green Bonds issued under this framework will not be put towards financing 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 not in accordance with TOMRA's investment policy or that breach internationally recognised frameworks (such as the ten principles of the UN Global Compact) will also be excluded.

## PROJECT CATEGORIES & ELIGIBLE ASSETS

### Pollution prevention and control

Expenditures in connection with the collection, sorting and processing of beverage containers:

- 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
- 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

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.

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.



## SELECTION AND EVALUATION OF ELIGIBLE PROJECTS AND ASSETS

To ensure compliance with the criteria set out in the use of proceeds section above, TOMRA has established a Green Bond Committee (GBC) which will oversee the selection of eligible projects and assets. The Committee will consist of sustainability and financial team representatives, some of whom will have environmental expertise. The Committee will meet at least annually or when needed. Decisions are taken in consensus.

The Green Bond Committee follows the below process when selecting and evaluating Eligible Projects and Assets:

1. Relevant business units will propose the potential projects and assets to be financed or refinanced in accordance with the above criteria
2. The GBC will assess the eligibility of the proposals according to the criteria in the use of proceeds section and remove projects that do not meet these. The committee will submit its final approval after selecting which projects and/or assets that should be financed.

The GBC will also oversee any future updates to this framework, including any potential expansion of the eligible categories, and manage its implementation.

## MANAGEMENT OF PROCEEDS

To monitor the Eligible projects and Assets, as well as the allocation of net proceeds from Green Bonds issued under this framework, TOMRA will establish a Green Bond Register. Net proceeds will be managed on a portfolio basis.

TOMRA will over the duration of the outstanding Green Bonds build up and maintain an aggregate amount of Assets and Projects in the Green Bond Register that is at least equal to the aggregate net proceeds of all outstanding Green Bonds.

In periods when the total outstanding net proceeds of Green Bonds exceed the value of the Eligible Assets and Projects in the Green Bond Register, the excess portion will be placed on an ordinary bank account or in the short-term money market. To avoid doubt, TOMRA will use its best endeavours to avoid placing temporarily unallocated proceeds in investments as set out above in the section “Exclusions”.

## REPORTING

TOMRA will, on an annual basis, publish a report on the allocation and impact of Green Bonds issued under this framework. The report will be made available on the company's website. Where relevant, TOMRA will seek to align 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 impact report will, to the extent possible, also include a section on methodology, baselines and assumptions used in impact calculations.

### Allocation report

The Allocation report will, to the extent possible, include the following components:

- Total amount of outstanding green bonds
- Total amounts allocated and share of proceeds which are temporarily awaiting allocation, if any
- Amounts allocated to each category as defined in the Use of Proceeds section and the relative share of new financing vs. refinancing
- Descriptions and case studies of selected Eligible Assets and Projects financed

### Impact report

TOMRA will strive to report on the actual environmental impact of the investments financed by their Green Bonds. If/When actual impact for some reason is not observable, or unreasonably difficult to source, estimated impact will be reported.

The impact indicators may vary with investment category, as defined in the framework. The impact metrics may include the following:

#### Pollution prevention and control:

- The annual installed base of reverse vending machines
- The annual amount of beverage containers collected
- Amount/share of material recovered and upgraded for recycling

- Total net carbon dioxide emissions avoided (tonnes of CO<sub>2</sub>e)
- Installed capacity of renewable energy financed p.a. (MW)
- Reduction in operational transport emissions

## EXTERNAL REVIEW

### Second party opinion (pre-issuance)

TOMRA has engaged Cicero to provide a Second Party Opinion of this framework, to ensure alignment with national and international guidelines.

### Third-party review (post-issuance)

An independent auditor appointed by TOMRA may provide a limited assurance report confirming that an amount equal to the net proceeds from issued Green Finance Instruments has been allocated to Green Projects.

This Green Bond Framework, the second party opinion, and allocation and impact reports will be made available on TOMRA's website.