

TOMRA Systems ASA 7 May 2024 © TOMRA

# TOMRA GroupTOMRA CollectionTOMRA RecyclingTOMRA FoodTOMRA Horizon

**TOMRA Financials** 





Publicly listed on Oslo Stock Exchange (OSE: TOM)





### At TOMRA, our vision is to lead the resource revolution

It is our belief that businesses have the power and responsibility to help manage our planet's precious resources – today and tomorrow. TOMRA is an impact leader providing thought leadership and pushing the boundaries on technology and solutions ...

... optimizing how
resources are obtained,
used, and reused
– through automated
identification, grading
and sorting of resources.

We operate in markets where we take a leading global position and make a meaningful impact ...







... shaping existing markets and creating new ones.

#### Innovation, passion, and responsibility are our core values ...





... and we have an entrepreneurial culture where we empower for ownership.

### **1972** A challenge to solve

Petter and Tore Planke developed the world's first automated reverse vending machine for collecting used bottles in 1972.

Aage Fremstad, the grocer who first asked Petter Planke if he could provide an automated return solution for empty bottles, showcases the first TOMRA prototype installed at his store.



# We have shaped circularity and resource optimization for over 50 years through innovation, entrepreneurship, and thought leadership



### TOMRA's transformation journey

Key developments and acquisitions





### Growing sustainably & profitably

### We have consistently delivered profitable growth while enabling significant emission avoidance through our products



\* Estimated in TOMRA's annual reports. TOMRA will change calculation methodology to align with WBCSD and Net Zero Initiative's Guidance on Avoided Emissions. This is expected to affect nominal values, not the trend.

### TOMRA's global presence

#### Installed base worldwide





Total ~113,700





# The drivers for increased circularity and resource optimization have never been stronger than now



#### **TOMRA Strategy**

	TOMRA Strategy				
	Accelerate growth in core			Develop adjacent business	
E	Collection	Recycling	Food	Horizon	M&A
			000		
4	Invest in double digit growth	Invest in double digit growth	Improve profitability then grow	Long-term business building	Selected value- adding verticals

#### Fully circular business and being safe, fair and inclusive

Climate impact

Sustainable product design

Employee value proposition

IIIII



### Our vision is to lead the resource revolution, to...





#### Reduce today's



### of consumable food which is lost and wasted<sup>2</sup>

### **TOMRA** Collection





Transforming society's habits to keep valuable resources in a continuous loop of use and reuse.

**773** million EUR in revenue



U Pecycline

**87,000** machines in operation



Represented in more than **60 markets** 

We are a technology leader globally

> **~2.950** Employees

Collecting 48+ billion containers a year

Source: TOMRA.com

\*All the figures are from 2024

## Over 48 billion drink containers collected in 2024

This represents less than 3% of all beverage containers in the world.

Deposit return systems enable **Clean Loop Recycling** 

27%





Compiled from deposit System Operators and "PET Market in Europe: State of Play," Eunomia. 2020. Data available upon request.

<sup>1</sup> Aluminum, Glass, Plastic.. "Beverage Market Data Analysis 2017," Container Recycling Institute. 2020.<sup>2</sup> Michigan and Oregon. Bottlebill.org. 2021

# Legislation, automation and decarbonization drive the expansion of DRS systems worldwide



#### Regulation

EU's Single Use Plastic Directive (SUPD) & Packaging and Packaging Waste Regulation (PPWR) drive **implementation of DRS** to achieve collection targets above 90%

### Modernization & Automation

Labor cost and margin pressure lead to focus on **efficiency and ease of use** across the value chain

#### Decarbonization

Industry committing to SBTi targets pushing **sustainability** to be part of decision making

#### TOMRA Collection, Installed base, worldwide







### Solution Portfolio TOMRA is a leading provider in reverse vending solutions Service network

Innovation leader

Trusted partner







TOMRA offers a wide portfolio of RVMs, digital tools with APIs, and service - for different size operations



Reverse vending machines (RVMs) tailored to a variation of needs



Unmanned RVM Kiosks



Large scale equipment for redemption centers & depots



Digital products and APIs for end users and operators



Remote and local on-site service

Our solutions are divided into six product lines





Mini



Standalone







Basic

### Our reverse vending portfolio



TOMRA

**CONTAINER VOLUME** 

Click here for more info



- Consumer Experience & Engagement products
- Operational Insights & Reports
- APIs and integration services







Installation



Online support



Remote monitoring



Preventive Maintenance



Training



Field Service

Customer centricity is at the core of our innovation strategy



Efficient operations for peace of mind





A smart

investment

for long-term

benefits

Strategic aspiration: Innovate **the most attractive** solutions and the best customer experience

A great user experience

30

# We solve customers' DRS challenges through flexible value chain positioning depending on local needs

#### **TOMRA Collections' value chain positioning**



### Cash flow profiles of the two main business models

Illustrative cash flow profiles per machine



# Our ambition is to continue our trend of profitable growth in Collection



### Collection: Total potential beverage containers to collect

(based on global sales of drink containers in 2023)



# We will drive significant growth in existing DRS markets by maintaining our industry leadership

EXISTING MARKETS Maintain industry leadership



expected 40-50% share of growth by 2030





Increased throughput & material recovery volumes

# We will drive significant growth in coming DRS markets by leveraging our current strengths


# We will position for growth beyond 2030 in rest-of-the-world markets by exploring alternative collection solutions

#### **REST OF THE WORLD**

Long-term positioning and investment



expected 5-10% share of growth by 2030



Holistic solution provider of circular solutions

Solution- & business model innovation

First-hand experience from pilot concepts in Middle East and Asia

## Our ambition is to steadily increase the EBITA margin towards 2030 while realizing significant growth

EBITA margin Increase to high 10's



Increase operational efficiency in existing DRS markets, both COGS and OPEX



Launch of new innovative products and volume growth in throughput markets



Ramp-up costs and initial warranty period reduces margin at the launch of new markets We aim to decouple our growth from our footprint





### Decrease CO<sub>2</sub> footprint aligned with SBTi targets

SBTi Scope 1-3 emission targets



by reducing the emissions from our operations and increasing the circularity of our products



#### ★

#### Our 2030 ambition:



on the way to Responsibly collecting 500bn drink containers for clean loop recycling and reuse



### Key takeaways



Continued strong profitable growth



Unique **position** & **market momentum** 



Maintain leadership in existing markets, capture new markets & prepare for beyond 2030

### TOMRA Recycling





Giving every piece of material we sort and analyze – may it be waste, metal or ore – a value.



We serve customers around the world with state-of-the-art sorting machines

Represented in more than **100** countries

\*All the figures are from 2024

**~1.200** Employees **266** million EUR in revenue





**11,200** installed machines



The world generates up to **2.3 billion** 

tons of municipal solid waste annually.

### Almost **40%**

of this waste is not managed in an environmentally safe manner Recycling aluminum saves up to

### 95%

of the energy required to produce new aluminum

# We support the waste recovery and recycling industry in enabling circularity of materials

**TOMRA Recycling's value chain positioning** 

Industries	Waste streams			Recyclers				
Packaging		Rigid plastics	Flexible plastics	Раре	r UBCs	more	$\hat{\mathbf{x}}$	
Automotive				Ne	w			
Electrical & electronics	A COLAR	Metal			Plastics			
Furniture		Wood					for upgrading material (pre-	Recycling process
Textile		New Cott	on Po	oly-cotton	Polyester	more	processing)	
Mining		Dian	hond	Industrial m	inerals	Metals		44

# TOMRA is a global leader in sensor-based technology enabling recycling and mining



TOMRA Recycling Installed base worldwide



\* Excluding other non-sensor-based sorting equipment (magnets, ballistics, eddy currents) and other processing equipment

### Our installed base by segment



#### Material recovery segment

Recover materials for recycling from both source separated and mixed household waste

Segment share of installed base





#### Recycling segment

Upgrade material to pure fractions for high quality recycling

#### Segment share of installed base





#### Ore sorting segment

Recovery and ore sorting to reduce environmental impact

#### Segment share of installed base



# Decarbonization, legislation and modernization is driving the recycling market



Regulation

- EPR, PPWR, ELV Regulation encourage more waste streams to be sorted
- Improvement to recycling practices requires industrialscaled sorting



Decarbonization

- Companies signing up to science-based targets to net zero
- Increase recycled content
- Demand for higher quality feedstock



#### **Modernization & Automation**

- Increased competition and focus on operational efficiency drive infrastructure modernization
- Labor shortage demands high degree of automation

# More and better recycling of materials demands more and better sorting of waste streams



Emergence of Extended Producer Responsibility (EPR) beyond packaging increases adoption of automated sorting



#### **Further EPR schemes under consideration**





## The automated sorting process

**Product-specific equipment design** often including multiple sensors and technologies

High-tech sensors to **identify objects** on a transport system

High speed **processing of information** (material, size, color, shape and position of objects)

Precise sorting by air jets

Continuous **monitoring** and **improvements** using digital tools

### Our sensor-based sorting systems for waste



AUTOSORT™ The most powerful multifunctional sorting system worldwide



AUTOSORT™ BLACK The ultimate solution to sort carbon black plastics



AUTOSORT<sup>™</sup> FLAKE Our highest performance flake sorter for high-end applications



AUTOSORT<sup>™</sup> with GAINnext<sup>™</sup> Highest-performance waste sorting combining traditional sensors and deep learning



AUTOSORT™ *RDF* Real-time quality analysis for refuse derived fuels



**INNOSORT™ FLAKE** The most flexible color and polymer flake sorter



GAINnext™ Al-waste sorting to identify hard-to-classify objects



AUTOSORT<sup>™</sup> SPEEDAIR High-speed sorting of plastic films and lightweight packaging



X-TRACT<sup>™</sup> for Wood Powerful precision x-ray sorting of waste wood

## Our sensor-based sorting systems for metal



AUTOSORT<sup>™</sup> PULSE The Dynamic LIBS solution for sorting aluminum scrap by alloy



X-TRACT<sup>™</sup> for Metal

Powerful precision x-ray sorting of aluminum from heavy metals



**FINDER™** Ultra-flexible, intelligent sorting of non-ferrous metals



**COMBISENSE™** Color sorting of mixed non-ferrous metals for maximum value

#### **INTOMRA**

## How does sensor-based separation work?



High-speed processing of information (material, shape, size, color, defect, damage and location of objects)

## Example layout of an automated sorting plant





Sorting of Municipal Solid Waste, Cyprus

## Different sensors for a tailor-made solution



Near-infrared spectrometry (NIR)



Color camera (color)



Electromagnetic sensor (EM)



X-ray transmission (XRT)



Laser reflection/ fluorescence laser (LASER)



MID INFRARED (MIR)

LASER INDUCED

**SPECTROSCOPY (LIBS)** 

**BREAKDOWN** 



**3D Laser height** 

Vi sp

Visible light spectrometry (VIS)

## TOMRA Technology

In-house developed technology for the highest sorting performance Deep Learning

Latest AI technology that solves challenges that cannot be solved with conventional sorting methods

#### **FLYING BEAM™**

Groundbreaking illumination technology for stable material classification and up to 80% energy savings

#### SHARP EYE<sup>™</sup>

Optical solution providing intelligent, automated image analysis and increases the sharpness of images

And many more!

High-precision sensors, data-driven software and powerful processing techniques are at our core



The most sophisticated sorting systems based on traditional sensors and the latest AI technologies Data-driven real-time optimization through cloud-based monitoring Material flow analysis along key points of the sorting lines High-quality service with **remote diagnostics** and **preventive maintenance** 

## TOMRA Insight

*Turnd sorters into a powerful & connected source of actionable information* 

Reduce Downtime



Reduce Operational Cost



Maximize Throughput



Sort to Target Quality



### Waste analysis by PolyPerception

Gets the most out of a sorting plant with end-to-end tracking and classification on any sorting line

objec



AI waste analytics and compliance reporting



Real-time images of material flows



Food vs. non foodgrade plastic analysis



Integration with TOMRA machines We target double digit revenue growth, maintained profitability and reduced carbon footprint in Recycling



#### 60

intensity reduction

absolute reduction

# We are the technology leader in an evolving recycling market

Technology leader

Leading position while expanding to new segments

Ĩ

Value drivers





Commitment to innovation and cuttingedge research Most extensive sensor portfolio for highperformance machines

New success with AI and LIBS technology Advisory and close collaboration with our customers

# We will transform our service offerings for superior client deliveries

Transform service offerings Value drivers

ARF Ĩ Increase recurring Technology New service business Servitization strategies Rise of remote revenue share by and "as-a-service" advancement & models to reduce and field service strengthening and productized offers enablement optimize footprint digitalizing service





Demand for more and better feedstock drives sorting demand



We are the technology and market leader



We target double digit growth with strong profitability

Our 2030 ambition:

**Enable additional tons material for circularity** 



to give every piece of material a value by sorting and analyzing it and enabling its best use

### **TOMRA Food**

Our sorting and grading solutions help to maximize food safety and minimize food loss by making sure Every Resource Counts.



# We are the global leader in food sorting and grading



#### Installed base worldwide



#### **Focus segments**



We are focused on high value market segments, where technology makes a differentiate

### Food: Restructured organization with focus on profitability and optimizing the value of food for producers and packers



Processing

TOMRA

## Leading technology



### Our technology detects a wide range of parameters

### Visible



Objects with spots or other (small) blemishes are removed Shape & Size

Sort on length, width, diameter, area, broken piece recognition



Broken, split and damaged objects are detected and removed



Color

Grading by color or removal of discolorations in mono and mixed color material

### Invisible



Removal of produce contaminated with aflatoxin



Removal of soft, molded or rotten food



Detection of density differences



Fluo

Based on the chlorophyll level present in produce defects are removed

### Both



Removal of visible and invisible small and substantial defects



Foreign Material

Removal of foreign material in a material stream, e.g. insects, glass, metal, wood & plastics



Sort based on chemical composition such as water, protein content, sugar content (Brix) and dry matter

## Benefits for our customers

 Increased foreign Material (FM) Detection 2. Sort processed food accurately and maximize yield

#### 3. Simplify operator interactions



Increase food safety by eliminating FM that is loose, or on the surface of an object

Avoid costly recalls or reputational issues



Best in class technology to sort small and sticky objects

Smart detection and analysis minimizes false ejections

Quickly achieve the exact detection sensitivity and quality required



Intuitive interface enables operators to quickly master operation

Time and skill level required to complete tasks is reduced

Standard interface between TOMRA machines makes it easy for operators to rotate between machines

### Our platforms Solutions for Fresh and Processed produce

TOMRA A Product Line		TOMRA B Product Line	TOMRA C Product Line		TOMRA X Product Line	Peeling Lines
TOMRA 3A Series	TOMRA 5A Series	TOMRA 5B	TOMRA 3C	TOMRA 5C	TOMRA 5X	Peeling

#### Integrated sorting solutions for Fresh Produce



### Working principles in Food sorting

**Chute or Channel sorter** 



#### Air inspection



Xray sorter



#### **Belt inspection**



#### Singulated grading


## Global trends underpin market acceleration that fuel the rise of automated sorting technology



Demographics

- Population growth driving increased demand for food
- Rising middle class change dietary habits



#### **Modernization & Automation**

- More detailed requirements
- Pressure on labour cost and availability
- Machine efficiency to increase yield
- High rate of technology change

### First, we improve profitability then target growth





## Phase 1 is focused on profitability and customer satisfaction

#### 1. Restructuring



#### Value drivers



Focus & simplify our portfolio and operations to reduce complexity



Establish local partnerships to complement our solutions, streamlining delivery and installation



Improve service performance, increasing aftermarket share of wallet



Implement a platform approach to speed up time to market of new products

## Phase 2 will be about profitable growth through technology leadership and service innovation

#### 2. Profitable Growth



#### Value drivers



Innovative service products that add value across the whole customer life cycle



Digital and data offerings that create new value streams for our customers

Expand sorting opportunities to increase share of wallet of our customers

Sensor technology development to open up new segments and opportunities

# We start with our restructuring program but see further opportunities to improve our margin



### 

We are the **global leader** and we aim to strengthen this position by delivering leading **customer satisfaction** 

We will complete the restructuring, delivering on profitability

We will then deliver profitable growth through technology leadership and service innovation

★

Our 2030 ambition:

Contribute to reduce the



of food loss and waste while enforcing food safety and maximizing the yield for our customers

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Food loss and waste source: Food and Agriculture Organization of the United Nations (FAO) 2023. *Tracking progress on food and agriculture-related SDG indicators 2023*.

### TOMRA Horizon



### Develop adjacent Business

Exploring new adjacent business opportunities and alternative business models leveraging our technology and decades of know-how in order to facilitate and accelerate the transition to circular economies.

### TOMRA Horizon

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Long term business building

### Adjacent M&A

Selected value-adding verticals

## Horizon is a vehicle to broaden the TOMRA portfolio and create long term value



Innovate and lead the resource revolution

Broaden our portfolio



Create additional profitable growth

## Our ventures are past the business blueprint phase, ready to demonstrate and scale technology



#### **Capital allocation thresholds**

>15%

IRR

>15%

**EBITA** 



Opportunities where TOMRA has a **competitive advantage to succeed**  Potential for **strong capital returns** supporting TOMRA to deliver on our Group targets

>**15%** ROCE Vi ata atau ita

Horizon platform 2025: Organic ventures, adjacent investments and exploration areas



### **TOMRA Feedstock**

TOMRA Feedstock utilizes our waste sorting technology to create new value chains that recover plastic waste which is typically incinerated or landfilled today.

Through advanced sorting plants, we turn this material into high quality plastic feedstock for closed loop recycling. More than 70% of plastics is landfilled or incinerated in Europe 8

# TOMRA Feedstock

#### Key needs to believe

The second second

2

3

- 1 Regulatory push for more plastics recycling
  - Industry committing to more recycled content in products
  - Advancements in mechanical and chemical recycling technology and capacity

Post-consumer plastics waste value chain in Europe



Two plants on track for startup during 2025/2026

Offtake agreement signed for most challenging output fractions

Further investment cases in pipeline

### **TOMRA Reuse**

TOMRA Reuse leverages our reverse vending technology to create open managed systems and complete infrastructures for reusable takeaway packaging for cities and events around the world – reducing waste and optimizing resources in urban areas.

Takeaway packaging create up to 50% of the waste in city's public bins

1. Scan kort

Panten returneres automatisk

VISA 🍩 🖼 🛲

2. Pant her

### **TOMRA** Reuse

#### Key needs to believe

- 1 Regulations on city, country or European level
- Reuse solution is convenient for consumers, ensuring high adaption
- Reuse solution is convenient for businesses reducing the barriers to shift to Reuse

HVE



### c-trace

c-trace is a German technology company specializing in digital waste management solutions, acquired 80% by TOMRA in 2024.

The company delivers innovative software and hardware systems including telematics, dynamic weighing and identification, RFID, and AI solutions—to optimize waste collection, recycling, and logistics operations for municipalities and commercial clients.



### Adjacent investments

In addition to business building through corporate ventures, TOMRA pursues a strategy of targeted adjacent investments to drive growth, accelerate innovation, disrupt existing operating models, and further strengthen digital capabilities both in our existing core divisions and in new areas.



### **Exploration areas**

In keeping with its entrepreneurial history and tradition, TOMRA continues to explore new areas to further its ambition to lead the resource revolution and realize a world without waste.

At present, smart waste management and emerging markets are subject to focused exploration efforts.



## We will target selective adjacent M&A plays to diversify and strengthen TOMRA



### **TOMRA** Financials



### We are positioning our portfolio for profitable growth



## We remain committed to our ambition of 15% annual growth



# We have a solid underlying business generating steadily growing revenues

There is significant growth potential for TOMRA even before considering new deposit markets in Collection...





# Our profitability target stay firm, and we will increase EBITA to 18% by 2030

#### Road to 18% EBITA margin ambition



**EBITA** margin at **18%** by 2030 97

# TOMRA has historically generated robust cash flows supporting our capital allocation

Historical operating cash flow EUR millions 



# We have a disciplined capital framework and allocation prioritization



## Our dividend policy is a cornerstone of TOMRA and will be kept unchanged



100

# We invest in accelerated growth within our core divisions while supporting selected adjacent opportunities



## We are focused on reaching a ROCE above 18%



Return on Capital Employed

>18%

by 2030

\*ROCE calculated as rolling 12M EBITA divided by rolling 12M Capital Employed, where Capital Employed equals total assets less cash less investments in associates less noninterest-bearing liabilities – includes Goodwill; 2023 adjusted for special items; Excluding transformative M&A

### Financial position



### We are committed to reach our sustainability targets across material topics by 2030

**Sustainable** Employee value Climate product design proposition impact Our sustainability targets towards >90% sustainable materials and Grow female representation in 100% renewable  $\mathbb{R}$  $\mathbb{R}$  $\mathbb{R}$ components in all new products 2030 senior management to >30% electricity >50% of our products are Improve employee satisfaction >80% reduction in operational  $\mathbb{R}$  $\mathbb{R}$  $\square$ circular at their end of live with top quartile NPS score transport emissions Attract diverse talents from all facets Commitment to Net Zero  $\mathbb{R}$  $\mathbb{R}$ of humanity, with a goal of 50% emissions and setting SBTi targets women and men joining annually

# We have developed our SBTi targets as part of our pathway to reach net zero



1) Absolute reduction of GHG emission, 2) GHG intensity reduction, illustrated in graph based on 2022 revenue multiplied with 2033 and 2050 target GHG intensity reduction per EURm, 3) Baseline estimated at ~1.5m tCO<sub>2</sub>e, 4) Target reduction percentages when holding 2022 revenue constant to illustrate GHG intensity reduction for Scope 3 at current baseline level – For instance Scope 3 emissions could be unchanged in 2050, but the GHG per EURm revenue will be reduced by 62% in 2033 and 97% in 2050 for Scope 3 following revenue increase





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