

TOMRA Systems ASA

15 July 2022 © TOMRA

# 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.







Publicly listed on Oslo Stock Exchange (OSEBX: TOM)

Collection



Food







## Our transformation journey

2004 RECYCLING

TOMRA acquires TITECH, the world's leading provider of optical recognition and sorting technology for the waste industry and TOMRA's transformation journey starts.



2005

2006

COLLECTION

**TOMRA** acquires Orwak Group, a leading provider of compaction for a variety of materials.



2008

**TOMRA** acquires

in sensor-based

mining technology.

Ultrasort - specialists

RECYCLING

RECYCLING

TOMRA acquires Commodas - a leading supplier within the field of sensor-based products for mining and metal recycling. 2011

COLLECTION

Sale of Californian material handling business. With the divestment the US operation became

less exposed to movements in commodity prices.



FOOD

2011

TOMRA acquires Odenberg, rounding out the offering to include food optimization.



......

2012

FOOD TOMRA acquires BEST, leading

food sorting machine producer. With the acquisition of BEST, TOMRA has by far the widest reach within the food sorting universe.



COLLECTION

2016

FOOD

TOMRA expands into lane sorting, acquiring New Zealand based Compac, confirming TOMRA's position as the leading provider of sorting technology into the food industry.

2014

Divestment of Orwak. Further portfolio focus on sensor-based technology.

2018

FOOD

TOMRA compliments its food sorting portfolio with the acquisition of BBC Technologies, a leading provider of precision grading systems for blueberries and BBC O other small fruits. TECHNOLOGIES

FROM:



Helping the world recycle

TOMRA

2000



Collection

2004



■ Collection Sorting

2008



■ Collection Sorting

2012



■ Collection Sorting

2019



■ Collection Sorting

2021



■ Collection

Recycling ■ Food

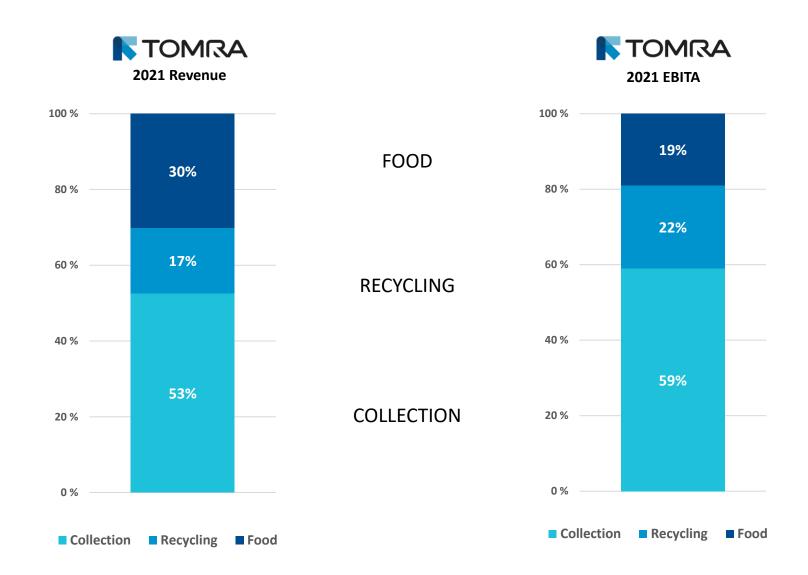
TO:



**LEADING THE** RESOURCE **REVOLUTION** 



# Creating value through three divisions





## Divisions and segments

	TOMRA COLLECTION	TOMRA RECYCLING MINING	TOMRA FOOD
	REVERSE VENDING	RECYCLING	PROCESSED FOOD
Share of '21 sales	~43%	~15%	~17%
Employees	1,856	575	826
Customers	Grocery retailers	Material recovery plants, scrap dealers, metal shredder operators	Food growers, packers and processors
Market share	~70%	~55-60%	~30%
	MATERIAL RECOVERY	MINING	FRESH FOOD
Share of '21 sales	~10%	~2%	~13%
Employees	580	84	655
Customers	Grocery retailers and beverage manufacturers	Mining companies	Food growers, packers and cooperatives
Market share	~60% in USA (markets served)	~40-50%	~25%
	TOMRA GROUP FUNCTIONS		
Employees	34		



## Installed base worldwide

#### **COLLECTION**



#### **REVERSE VENDING**

Nordic	~16,200
Germany	~30,000
Other Europe	~15,100
North America	~13,700
Rest of the world	~6,000
TOTAL*)	~81,000

#### **RECYCLING AND FOOD**



RECYCLING	MINING	PROCESSED FOOD	FRESH FOOD
EMEA ~5,850 Americas ~1,250 APAC ~1,100	EMEA ~35 Americas ~49 South Africa ~52 APAC/Other ~54	EMEA ~4,200 Americas ~3,250 APAC ~900	EMEA ~1,850 Americas ~1,600 APAC ~1,150
<b>TOTAL</b> ~8,200	<b>TOTAL</b> ~190	<b>TOTAL</b> ~8,350	<b>TOTAL</b> ~4,600

#### Number 1 in all markets globally







Climate change and resource scarcity



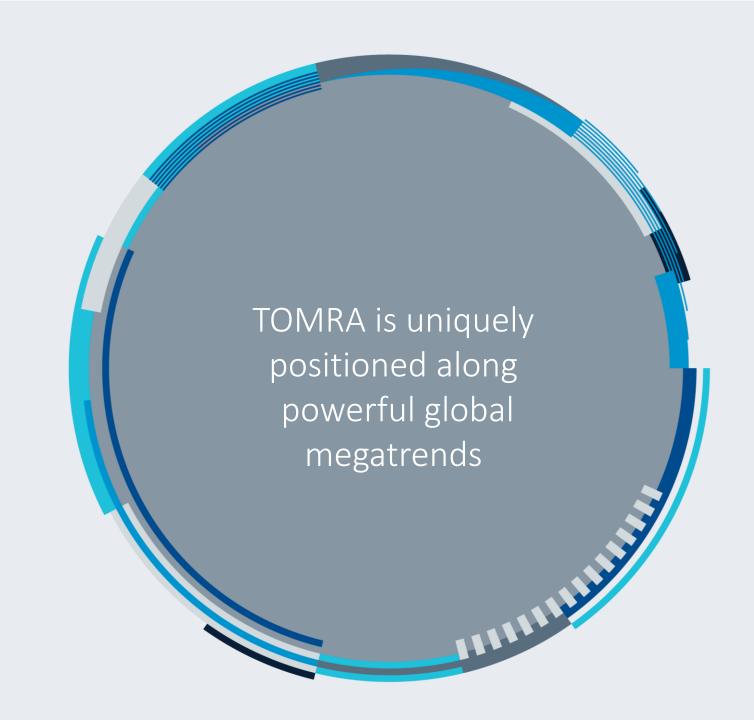
Demographic and social change



Technological breakthrough



Rapid urbanization



## TOMRA Collection



### **TOMRA**

The global leader in reverse vending



50 years of experience



81 000 machines in operation

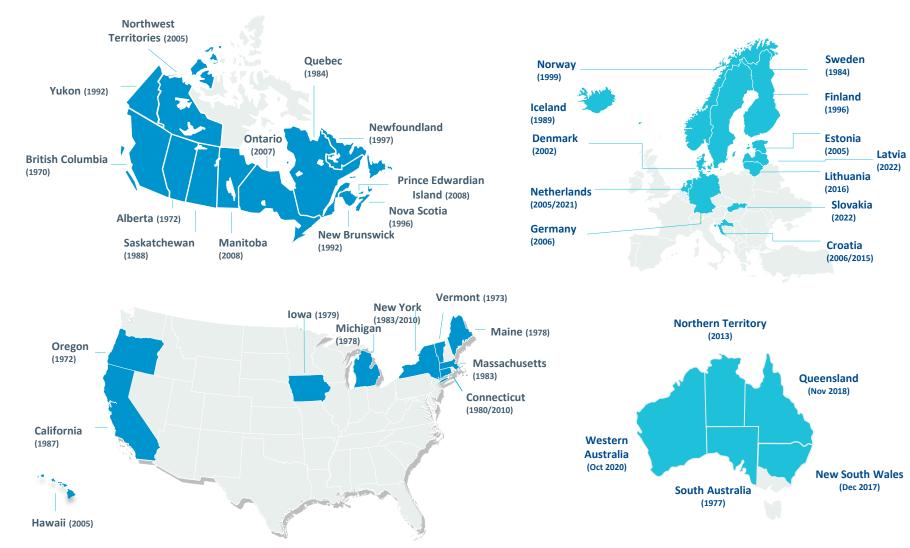
Represented in more than **60 countries** 

**5.7bn NOK** revenues **19%** EBITA margin





## An overview of current deposit markets





## Upcoming deposit markets

#### **Quebec:**

Deposit Return System to be modernized in 2023

#### **Connecticut:**

Expansion of existing deposit system in 2023/2024

#### **Scotland:**

Container deposit scheme planned to start August 2023

#### Ireland:

Deposit Return System to be implemented in 2023

#### **The Netherlands:**

Deposit Return System to be extended 2023

#### **England:**

Consultation ongoing for a deposit scheme anticipated to be implemented in 2024.

#### Romania:

Deposit Return System to be implemented 2022/2023

#### Austria:

Deposit Return System to be implemented 2025

#### **Collection target** for plastic bottles:

- 77% by 2025
- 90% by 2029

#### **Recycled content** in product design:

- 25% by 2025 in PET bottles
- 30% by 2030 in all plastic bottles

EU Single-Use Plastic Directive:
Targets on recycled content and collection target for plastic bottles. Deposit scheme mentioned as a mean to reach those targets.

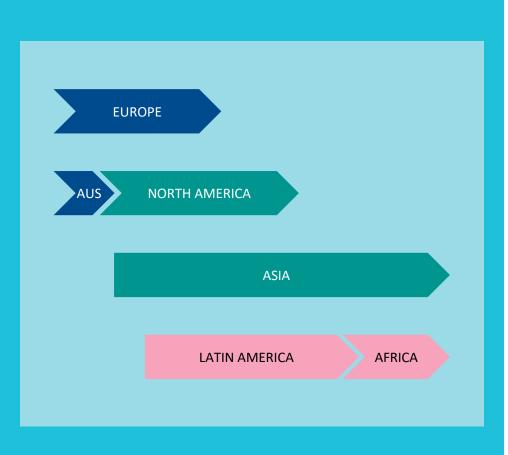
#### Victoria and Tasmania:

Deposit Return System to be implemented in 2023

#### **New Zealand**

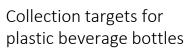
Deposit Return System proposed for 2025

We are driving the market momentum through global advocacy work aiming to achieve best practice deposit systems and generate demand through innovations











Targets for recycled content in plastic beverage bottles

77% 90%

2029

25% 30%

2030 2025

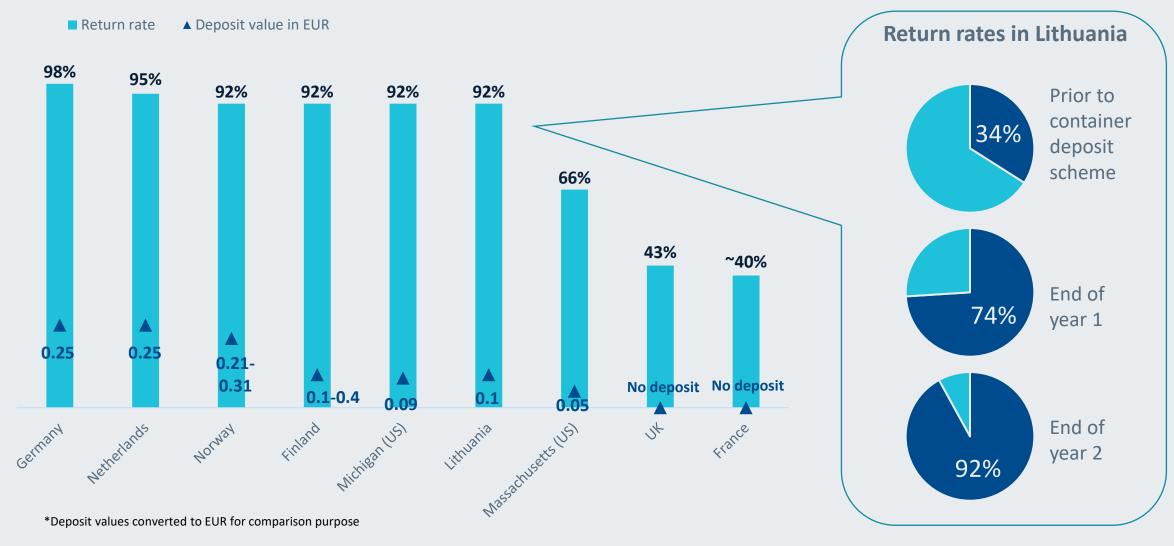


Continued work with governments to implement best practice deposit legislation



Innovate solutions that trigger modernizations and increased demand

## High collection rates achieved in two years' time



## The four principles of high-performing deposit return systems

#### **PERFORMANCE**



A collection target for a broad scope of beverage packaging plus a meaningful deposit delivers strong results.

#### **CONVENIENCE**



The redemption system is easy, accessible and fair for everyone.

#### PRODUCER RESPONSIBILITY



Producers manage, finance and invest in the system with use of unredeemed deposits and commodity revenues.

#### **SYSTEM INTEGRITY**



Trust is built into the system's processes through transparent management, a data-driven clearinghouse, and reliable redemption technology.

Reinvestment of unredeemed deposits and material revenue within the system

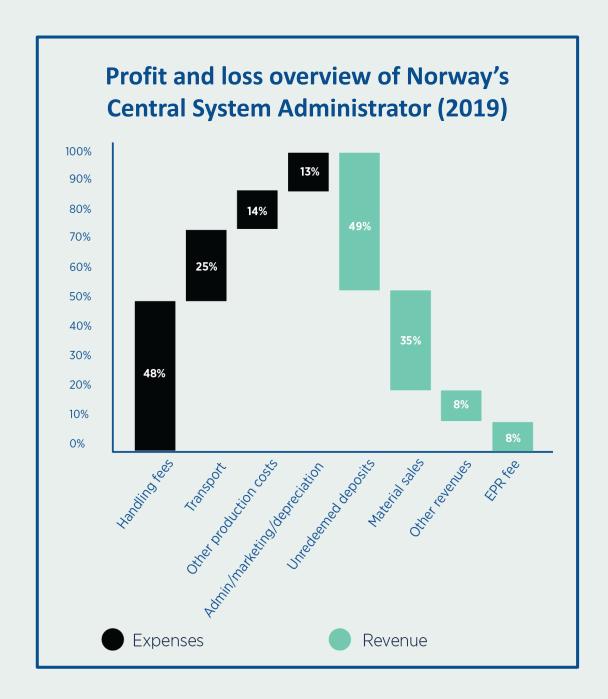
In Norway **over 80%** of the

system's costs are

covered by

unredeemed deposits

and material revenue



Legislative outlook supports new and expanded Deposit Return Scheme (DRS) markets towards 2030



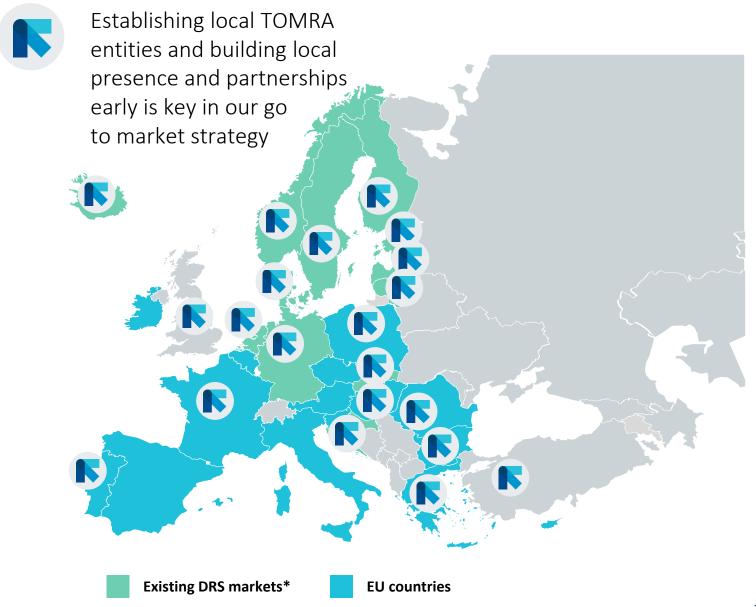
<sup>\*</sup> In addition, some markets have refillable deposit systems such as: Austria, Belgium, Chile, Czech Republic, France, Hungary, Poland and South Korea

Europe and the Single Use Plastic Directive (SUPD) will be the main driver of new deposit markets towards 2030



<sup>19</sup> 

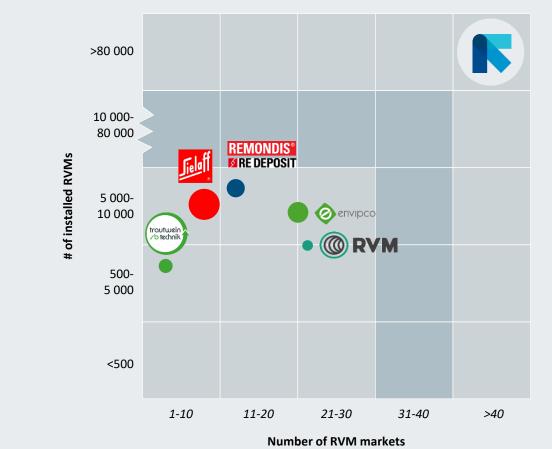
Strong local presence in existing and upcoming European deposit markets



<sup>20</sup> 

## Global market leader in reverse vending solutions





Customer centricity is at the core of our innovation strategy

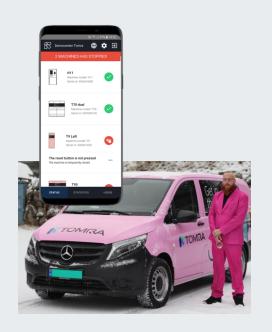
Strategic aspiration:
Innovate the most
attractive solutions
and the best customer
experience

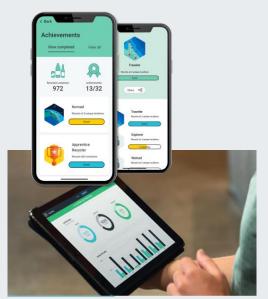


Efficient operations for peace of mind

A smart investment for long-term benefits







## Business model expertise across deposit systems

Retail

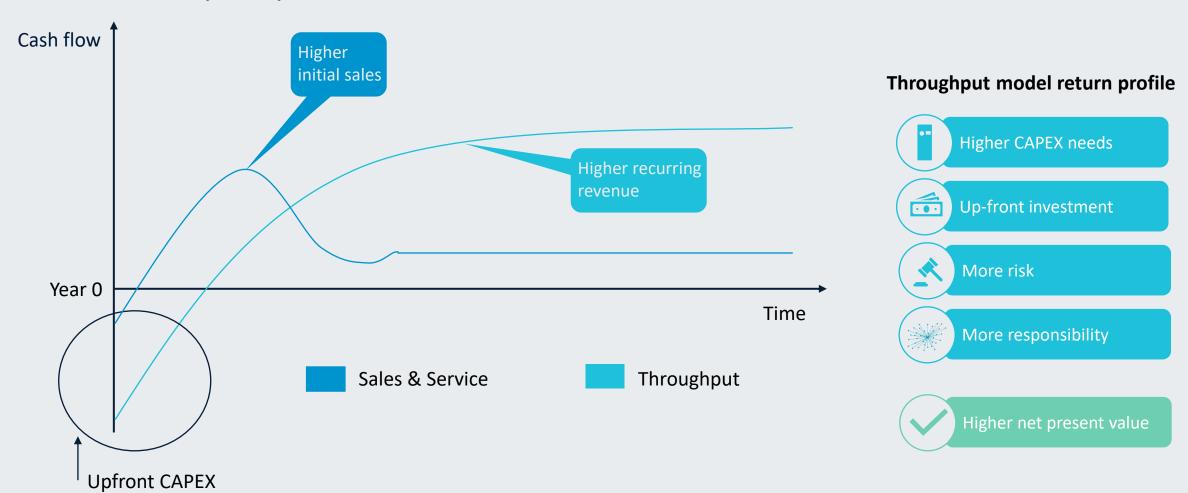
Location

Other

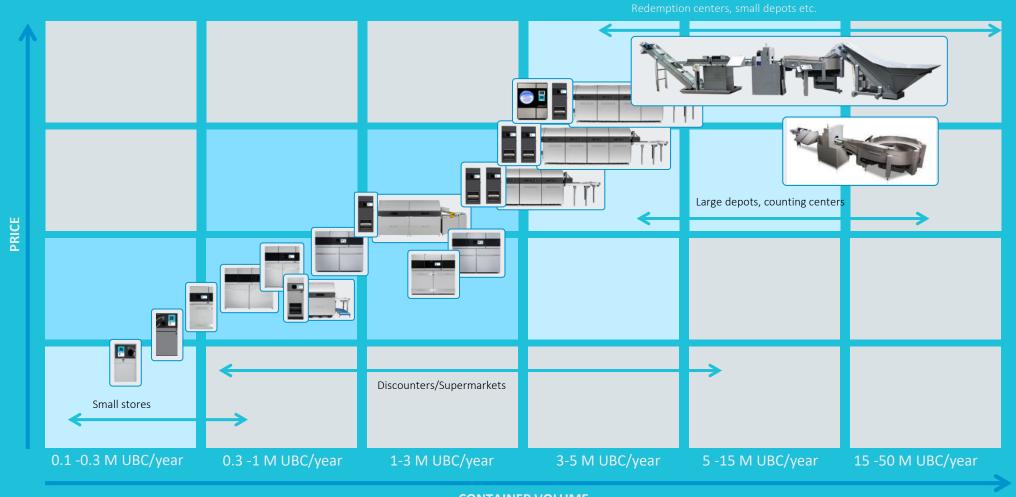
**Financing** Sales & Service model **Throughput model** High recurring Upfront equipment Revenue revenue Recurring service Swift roll-out revenues Proven track record Aligned interests Retailer purchases and takes the TOMRA owns and operates the Utilize financial Lower risk RVM and receives a fee per strength **TOMRA** provides services container handled by the RVM

## Cash flow profiles of the two business models

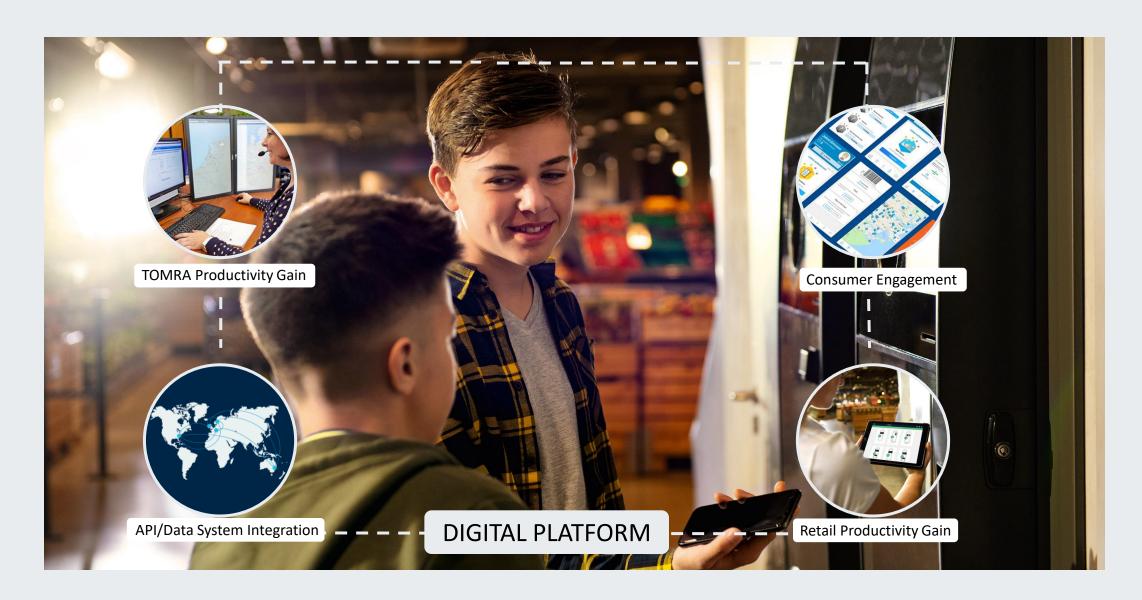
#### Illustrative cash flow profiles per machine



## Flexibility and scalability to enable new business models and new market entry



## Advanced digital platform leveraged across stakeholder groups









**RVM Kiosks** 



**Automated Depots** 



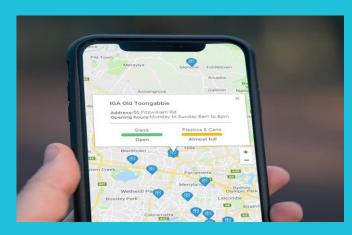
**Reverse Vending Centres** 



Over the Counter



Single RVMs



Scheme App

#### Current supply chain with country origin on purchased material

# Norway Taiwan Sweden Poland

## Global Supply Chain

Optimize global sourcing and production set-up

#### The goal

Support the market demands both on capacity and flexibility

Capable of annual delivery of up to 30.000 RVMs

Dual sourcing strategy in focus to reduce risk and exposure (increase European sourcing)

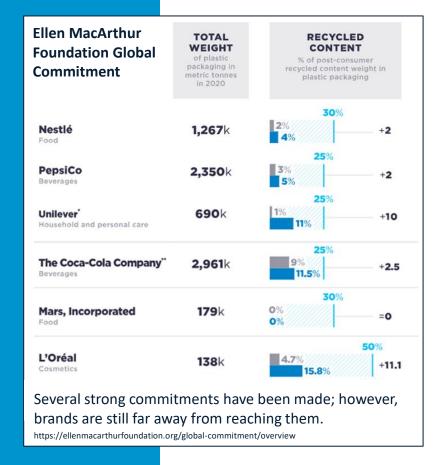


## TOMRA Recycling



# There is a legislative push and market pull towards a circular economy





Example: Norway

Target 2025=50% recycling Target 2030=55% recycling

300 000 EPS [Ton] 250 000 Packaging waste including 200 000 150 000 100 000 50 000 2018 2020 2029 2030 2033 2022 2026 2028 2032 2021 2023 2025 2027 2031 Material recycled Total waste generated **EU** target Material recycled, new measurement point

<sup>&</sup>lt;sup>1</sup> Packaging and Packaging Waste Directive



EU member states need to meet PPWD<sup>1</sup> targets for plastic recycling

## Strong commitment from the industry to use recycled polymers

#### Selected global commitments (non-exhaustive)



"Our ambition is to use 1 million tons of plastic waste a year in our global chemical plants by 2025"

1 million tons



"Produce and market 2 million tons of recycled and renewable based polymers annually by 2030"

2 million tons



"Produce 2 million tons of sustainable (includes recycled and biobased) polyolefins by 2030"

2 million tons

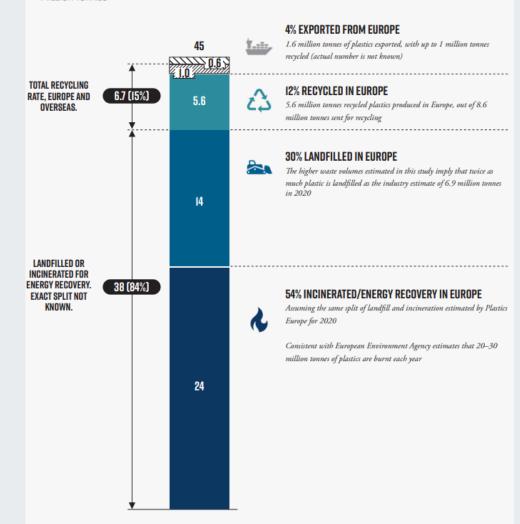


"By 2030, Dow will enable 1 million tons of plastic to be collected, reused or recycled through its direct actions and partnerships" 1 million tons

#### TREATMENT OF END-OF-LIFE PLASTICS IN EUROPE, 2020

#### TREATMENT OF EUROPEAN END-OF-LIFE PLASTICS, 2020

MILLION TONNES



+ others

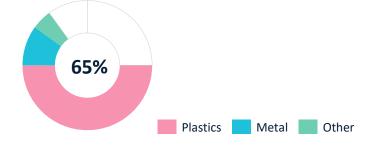
## Sorting is essential for a circular economy



#### Waste sorting segment

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

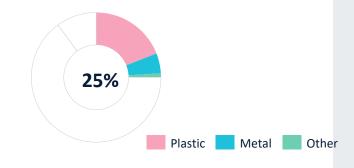
Segment share of installed base



#### Recycling segment

Upgrade material to pure fractions for high quality recycling

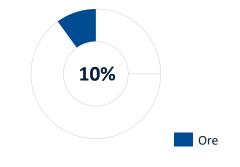
Segment share of installed base



#### Mining segment

Recovery and ore sorting to reduce environmental impact

Segment share of installed base

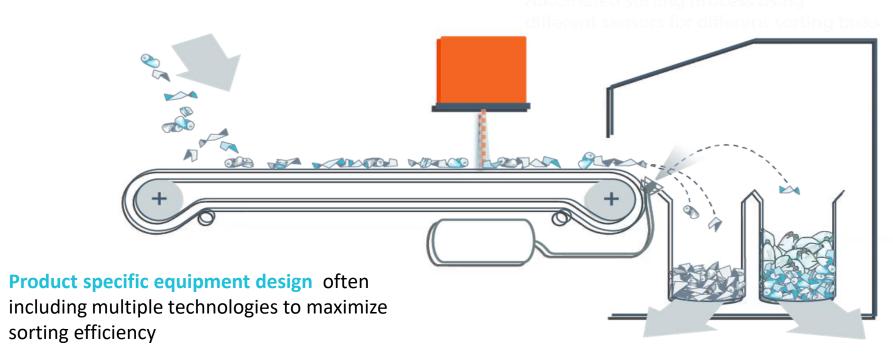




## How does sensor-based separation work?

Feeding of unsorted material

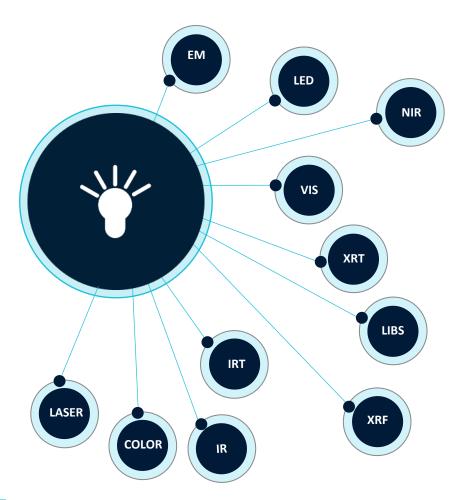
High-tech sensors to identify objects



**Precise ejection** by ultra fast air jets

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

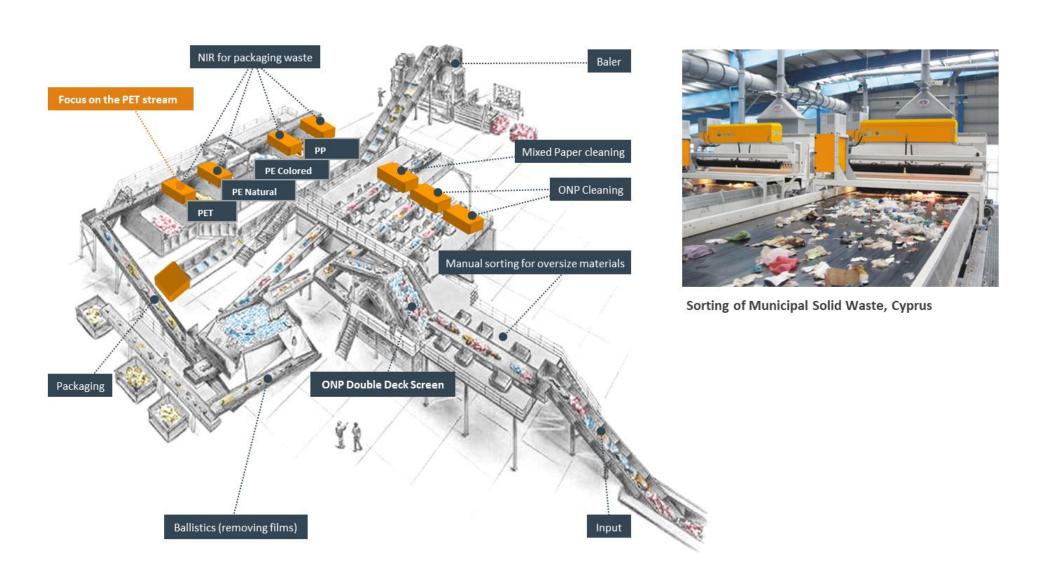
### A broad sensor-based technology portfolio



1			
	ELECTROMAGNETIC SENSOR (EM) Electro-magnetic properties like conductivity and permeability	RECYCLING X	FOOD
	LED SPECTOMETRY (LED)  Color and spectral properties based on multiple LED light sources in very high optical resolution	х	x
	NEAR-INFRARED SPECTROSCOPY (NIR)  Specific and unique spectral properties of reflected light in the near-infrared spectrum	х	х
	VISIBLE LIGHT SPECTROMETRY (VIS)  Specific and unique spectral properties of reflected light in the visible spectrum	х	х
	X-RAY TRANSMISSION (XRT) Atomic density irrespective of surface properties and thickness	х	x
	LASER INDUCED BREAKDOWN SPECTROSCOPY (LIBS) Elemental composition	х	
	X-RAY FLUORESCENCE (XRF) Elemental composition	х	
	INFRARED TRANSMISSION (IRT) Density and shape properties by light absorption		x
	IR CAMERA (IR)  Heat conductivity and heat dissipation		x
	COLOR CAMERA (COLOR)  Color properties measured in very high optical resolution	х	x
	LASER REFLECTION/FLUORESCENCE (LASER) Structural, elemental and biological properties by reflection, absorption and fluorescence of laser light	х	х



### Automation with TOMRA units



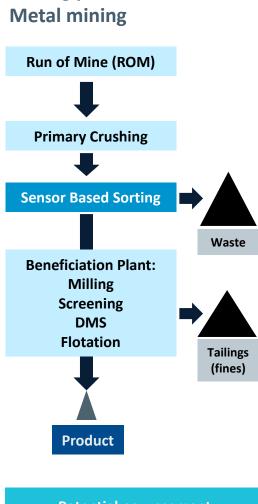
# The concept of sensor-based sorting in mining

# **Industrial minerals** Run of Mine (ROM) **Primary Crushing Secondary Crushing Sensor Based Sorting** Waste **Product**

Mining process:



- 15% to 50% of the ROM can be rejected in an early stage of the process (application dependent)
- These low grade waste rocks don't need to be transported, crushed, grinded or further treated

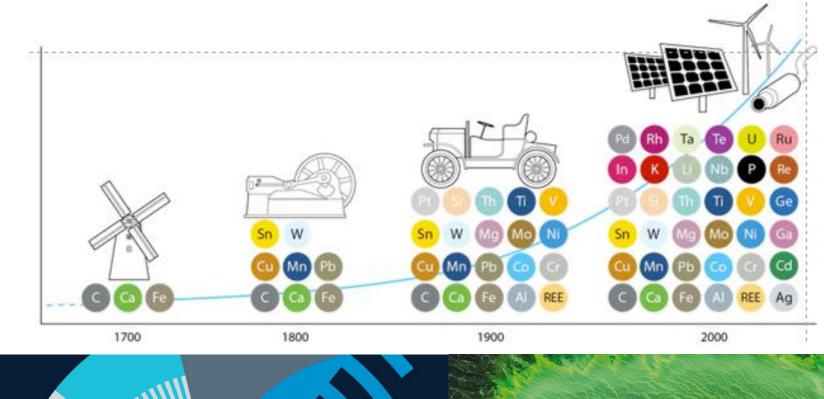


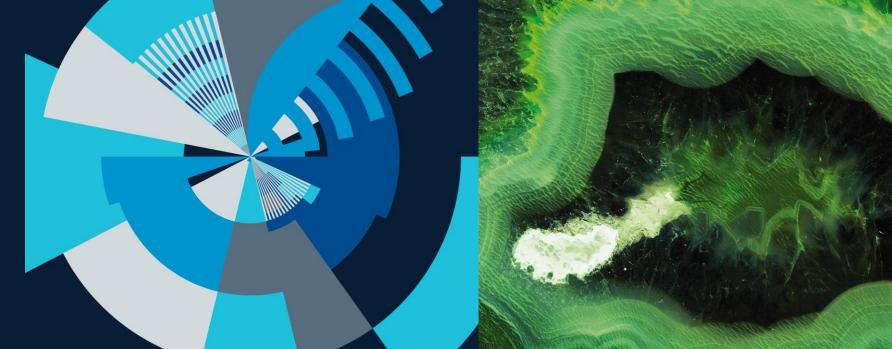
Mining process:

**Current segment** 

**Potential new segment** 

The essential nature of mining means that the industry needs to make a leap towards a more sustainable future





# Our ore sorting solutions enable the mining industry to reduce their footprint

#### Ore sorting is used to:

- Reduce operational impact and footprint by splitting the "good" and the "bad" materials early in the process
- Extend the lifetime of a mine
- Reclaim valuables for stock piles

VALUE-ADD:			
EFFECT OF SENSOR-BASED SORTING (SBS)	ENVIRONMENT	COST & PRODUCTIVITY	SAVINGS
Decreased energy consumption (Transport, pumping & dewatering, disposals)	✓	✓	15 kWh saved per ton of material     2% to 3% of the world energy consumption is used for crushing, screening and milling
Decreased water consumption (Cooling, transport in the process)	✓	✓	3 to 4 m³ water saved per ton of material
Reduced carbon footprint	✓	✓	CO2/Green counter, 7.5 kg per ton of material sorted     TOMRA Sorters saved ~124,000 metric tons of CO2 in 2018
Decreased Transport cost		✓	Costs down €0.30/ton/km
Chemical usage decrease (Flotation reagents, acid for leaching and cyanide)	✓	✓	A few grams up to a few kilos per ton
Reduced tailings (fine particles)	✓	✓	• 3 m³ tailings volume per ton (2 m³ material plus 1 m³ water)
Productivity increase (De-bottleneckconventional process)		✓	Per ton of waste 1 additional ton of ore production
Lifetime of Mine increased	✓	✓	30-50% longer life of a mine
Waste into value (Create sellable product)	✓	✓	The coarse waste rejected can be sold (for a low price)
Legislation		✓	Up to 3 years quicker approvals
Reduced cut-off grade (Higher dilution in the mine, process marginal dumps)		✓	30-50% more reserves

# Our solutions enable recovery of recyclables from different waste streams



A modern packaging sorting plant can contain up to 60 NIR sorters

Our solutions can also recover valuables from residual waste streams



# Our technology and innovations continue to push the boundaries of the recycling sorting market

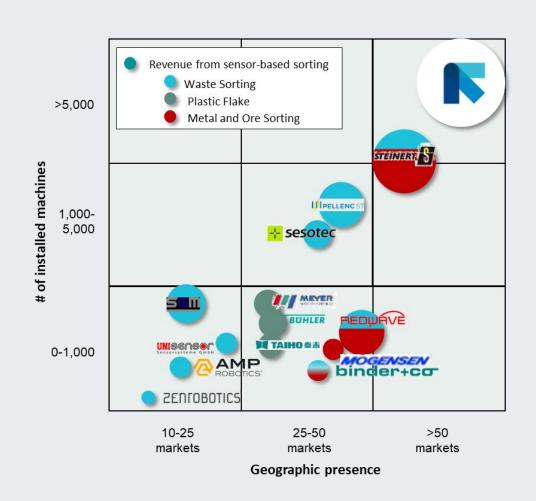
New segments for automated sorting

Increase of automation and performance

Capacity growth

Total recycling sensor-based sorting equipment market: ~400 million EUR

Out of scope for TOMRA addressable market: other non-sensor-based sorting equipment (magnets, ballistics, eddy currents), other waste processing equipment



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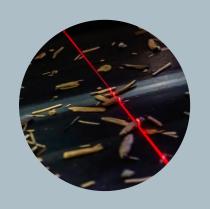
# Our solutions close the loop by enabling high quality recycling



**Plastics** 

We are actively pushing the boundaries of plastics recycling by:

- Demonstrating advanced mechanical recycling
- Supporting chemical recyclers







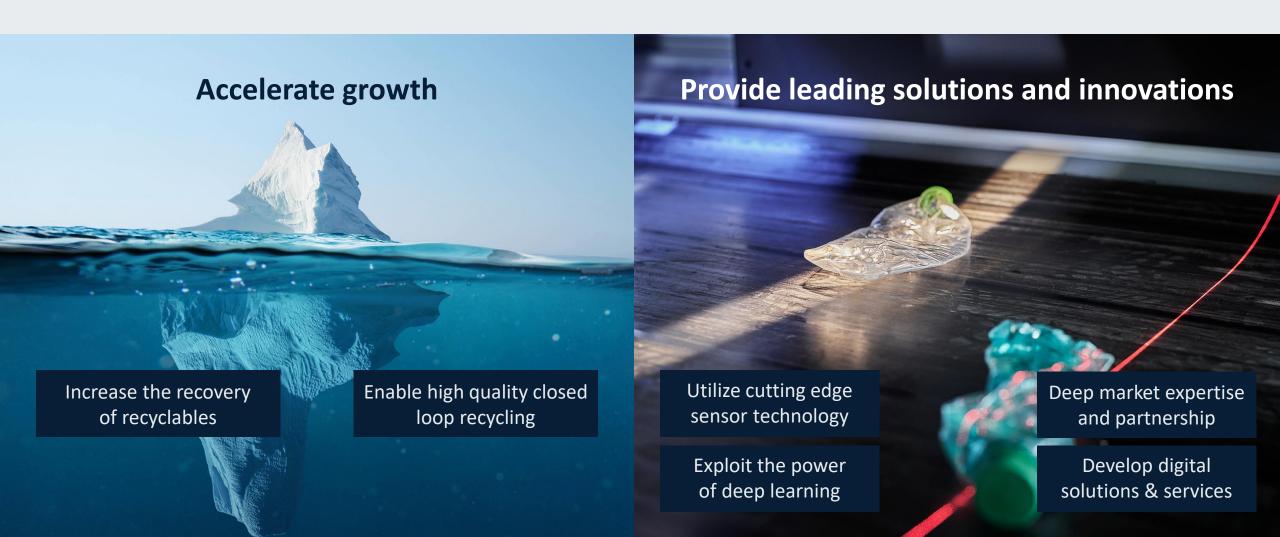
Wood sorting

Textile sorting

Alloy sorting

We are investing into the development of solutions for new segments

### We have two strategic priority areas



We are here to enable closed loop recycling solutions - material stream by material stream

#### Our commitment towards plastic packaging by 2030

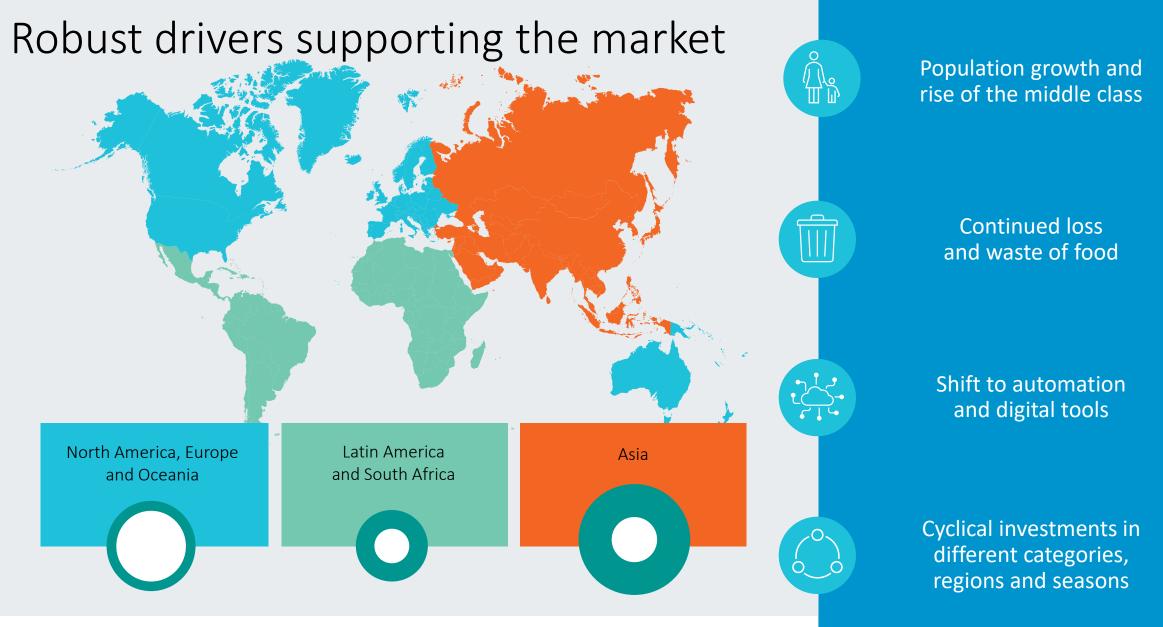
30%

of post-consumer plastic packaging is recycled in a closed-loop



### TOMRA Food







Potential

### TOMRA Food with a strong value proposition



#### Why TOMRA

**Know-how** 

Expertise to transform the food industry

Technology

Best-in-class sorting and grading solutions, and digital insight Partnerships

With local understanding, global know-how and long-term relationships

# Food Categories



# Three ways of sorting within the Food segment

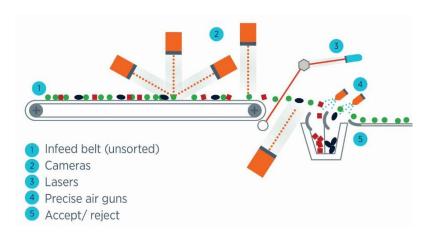
Free fall (Channel / Chute)		
Application	Seeds, rice, grains	
Sensor tech.	Camera (simple)	

Belt	
Application	Prepared /preserved veg. and fruit
Sensor tech.	Several (complex)

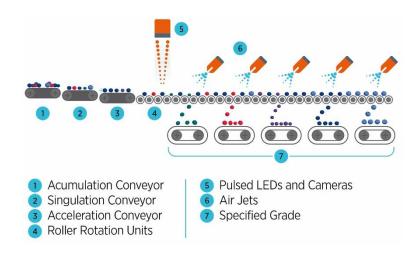
Lane	
Application	Fresh produce
Sensor tech.	Several (medium)

# Chute or Channel sorter Infeed shaker or hopper (unsorted) BSI module Lasers Precise air guns Accept/ reject

#### On belt inspection

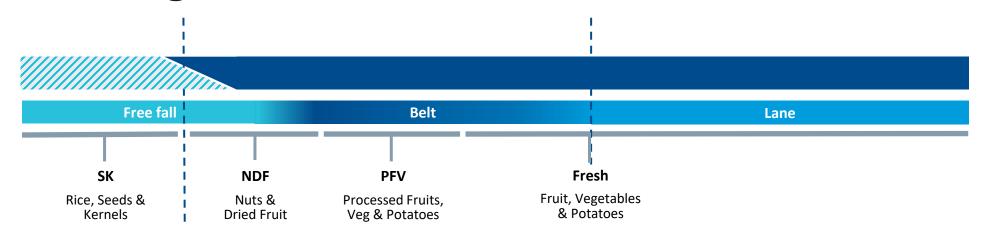


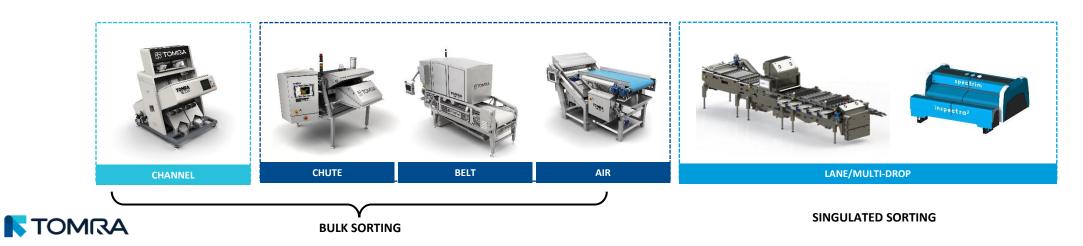
#### Lane grading





# TOMRA has established the broadest footprint within food sorting





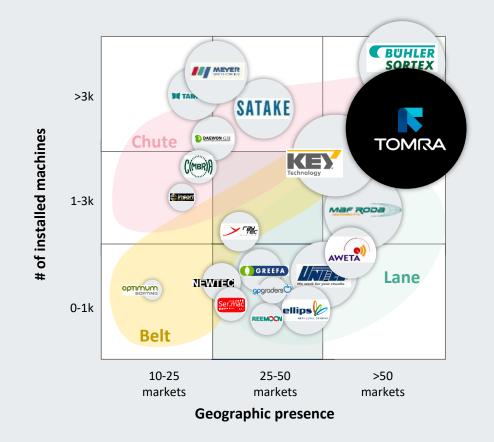
# Leading market position

**Total Food Sorting and Grading Market: ~1.5-2.0 EURbn** 

Addressable Food market: ~1.2 EURbn

**TOMRA 2021: ~0.3 EURbn** 

Overall market share 25-30%

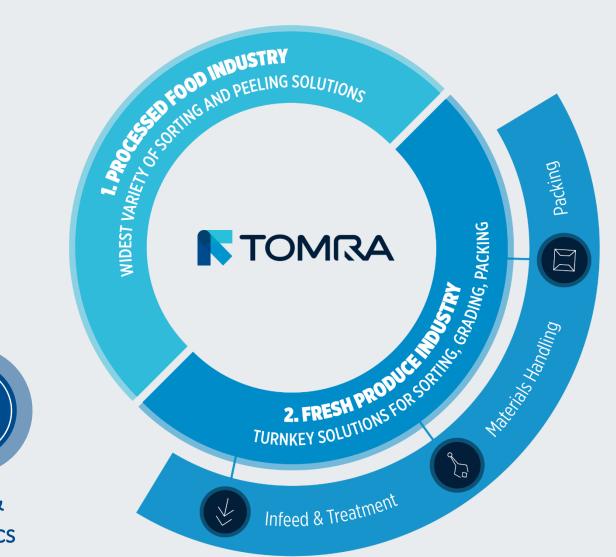


Based on TOMRA analysis, incl. service & spare parts

# Leading technology position



Sorting & Grading





Artificial Intelligence



Data & Analytics



Service & Support



### Our food sorting customers

#### PROCESSED FOOD INDUSTRY

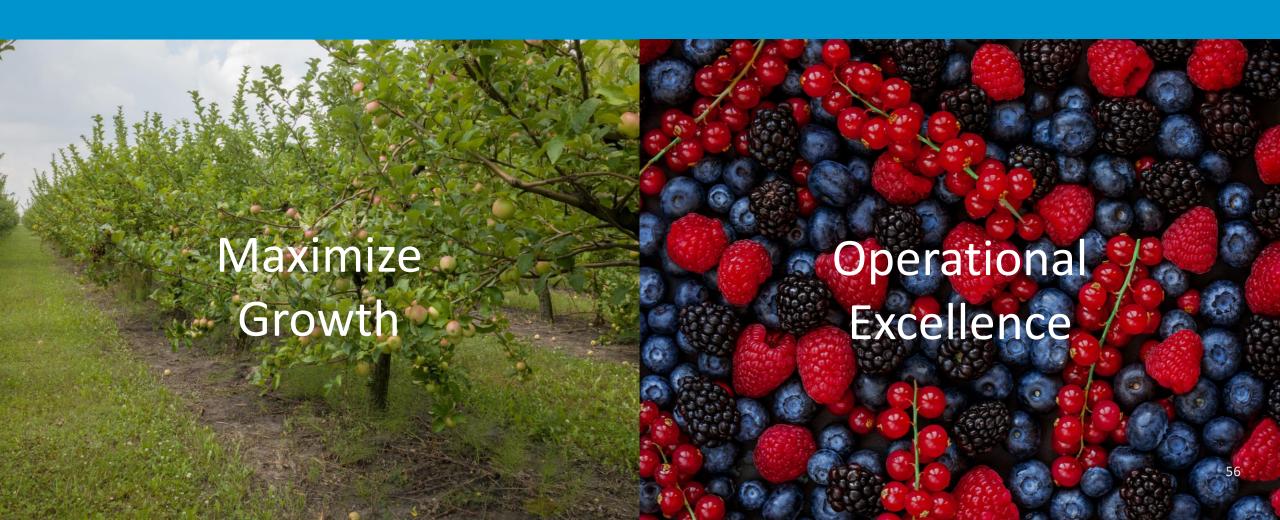


#### FRESH PRODUCE INDUSTRY





### Clear strategic direction and priorities



# Maximize growth







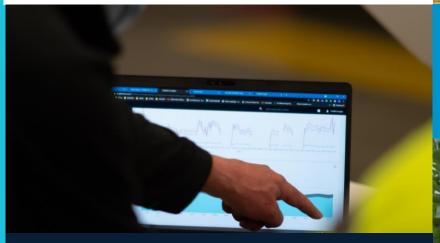
# Operational excellence



#### **Productivity**

Continuous improvement

Scale and synergies



#### **Technology management**

Modularization Digital

#### **Supply chain optimization**

Go-to-market
Global sourcing and resilience



#### **Customer focus**

Customer engagement
Value proposition



# **Every Resource Counts**

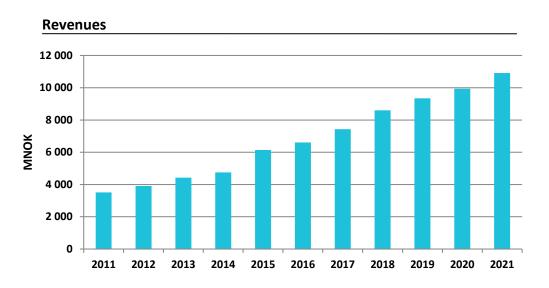


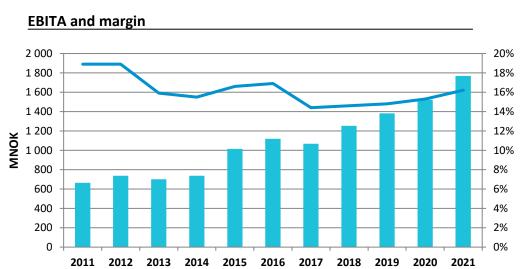
Post-harvest food loss reduction by 2030

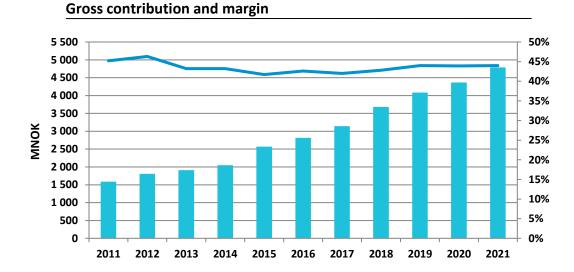


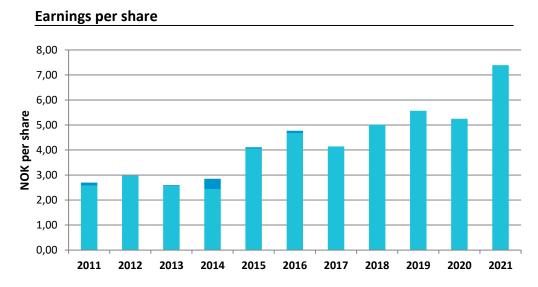


# Group financials development – solid track record









# Accelerating growth in our core business







Strategic priorities	Collection	Recycling	Food
Strategic priorities	Collection	necycling	roou

Growth focus	New DRS markets Product driven innovation in existing markets	Grow with market Push market boundaries with technology	Market share and geographic expansion within key categories
Supply chain resilience			<b>~</b>
Innovation	Customer centric	Technology to unlock new segments	Portfolio optimization
Digital solutions		<b>✓</b>	<b>✓</b>
Engage policy makers	<b>✓</b>		
M&A			<b>✓</b>

Our strategy is built on organic growth with the main engine being the core business

We have a solid market and capital position, and we will utilize this platform to develop adjacent business



# Ideally positioned to develop adjacent opportunities



# What are we looking for

Business models with the potential to become a sizeable business, ripe for scaling over the next few years

Opportunities where TOMRA has a competitive advantage to succeed

Potential for strong capital returns and steady-state profitability in line with TOMRA's targets





# The gap in plastics recycling

**GAP** 

#### Majority of plastics are lost today



- In Europe alone, 24 million tons of plastics are lost to incineration and 14 million tons to landfill
- The volume of each waste plant and incinerator is too low for sophisticated sorting to ensure the quality and fractions required for recycling

#### **Demand for recycled plastics**

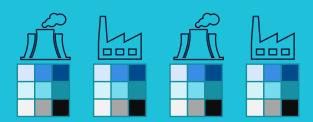


- Already a strong demand for recycled plastics will increase significantly in the next few years (more than 10 million tons from major plastic producers)
- Mechanical and chemical recyclers need an individual polymer fraction at sizeable volumes to justify investments



## Closing the circularity gap

#### **Suppliers**



Mixed plastics fraction needs to be made available by incinerators, landfills, and other sources





Connecting the value chain

#### **Customers**

















Sorted polymer fractions (e.g., HDPE, PS, PP, etc.) to be supplied to recyclers with the right quality

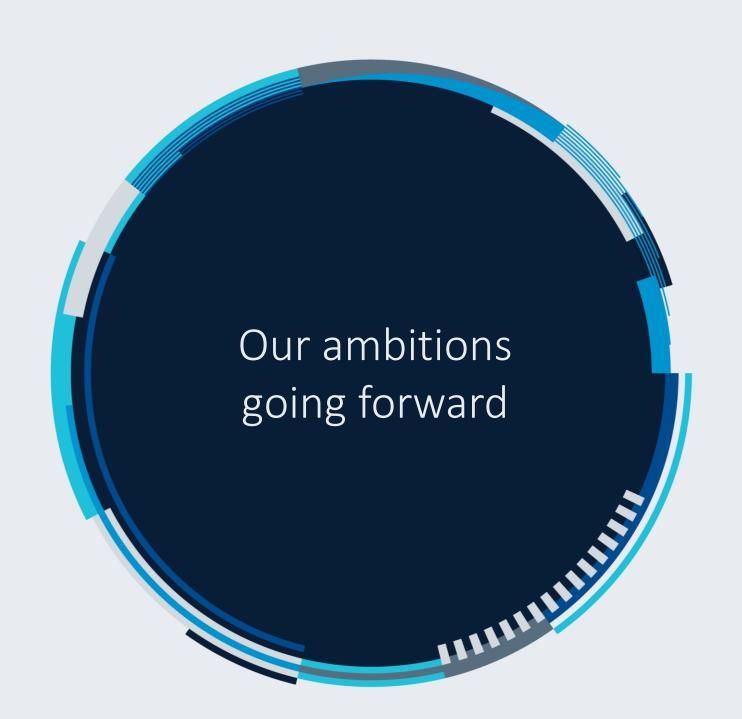




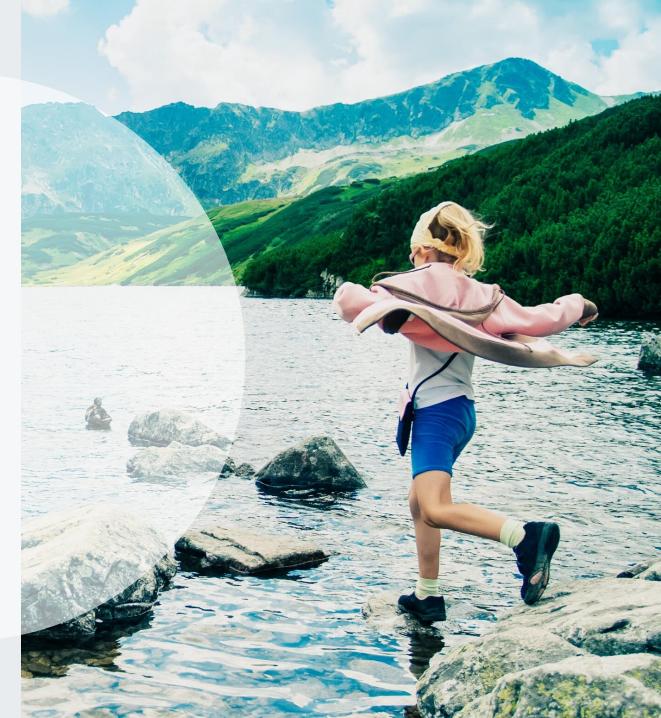


Accelerate growth in core

Develop adjacent business



...in a world that needs change how fast can we at TOMRA go and what would it take?





# We aim to accelerate growth to 15% and reach 18% EBITA margin by 2027

Revenue growth

**15%** CAGR

Accelerate growth in core

Develop adjacent business

EBITA margin

at

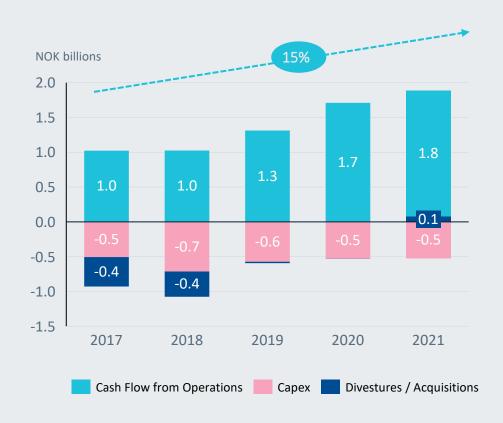
18%

Mitigate inflationary pressure

Efficiency and business mix

# Our dividend policy







## Our ambition is to keep an investment grade status

Capital structure

Investment grade

Low gearing and financial risk

Target green bonds for financing





### LEAD THE RESOURCE REVOLUTION



While

## BECOME A FULLY CIRCULAR BUSINESS



And being

BE SAFE, FAIR, AND INCLUSIVE



Double the avoided emissions enabled by TOMRA products in use

Commitment to net zero emissions and setting science-based targets (to be externally verified by 2024)

100% renewable electricity

>80% reduction in operational transport emissions

>90% sustainable materials and components in all new products

>50% of our products are circular at the end of their life

Strive for zero work-related injuries and illness by providing a safe place for people and the environment

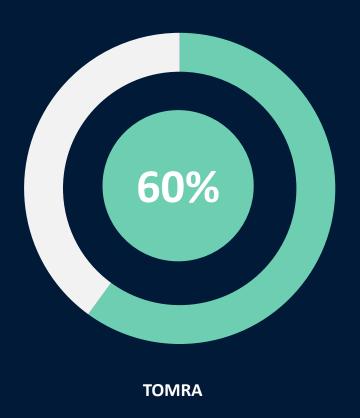
Attract diverse talents from all the colorful facets of humanity, with a goal of 50% women and men joining annually

Grow female representation in senior management to >30%

Improve employee satisfaction and engagement with top quartile NPS Score



#### EU Taxonomy – preliminary<sup>1)</sup> assessment



Collection and transport of non-hazardous waste in source segregated fractions

Material recovery from non-hazardous waste

Manufacture of machinery enabling closedloop systems, and high-quality waste collection and waste management<sup>2)</sup>

**ACTIVITIES** 

**OBJECTIVES** 

Climate

change

mitigation

Transition

to a

circular

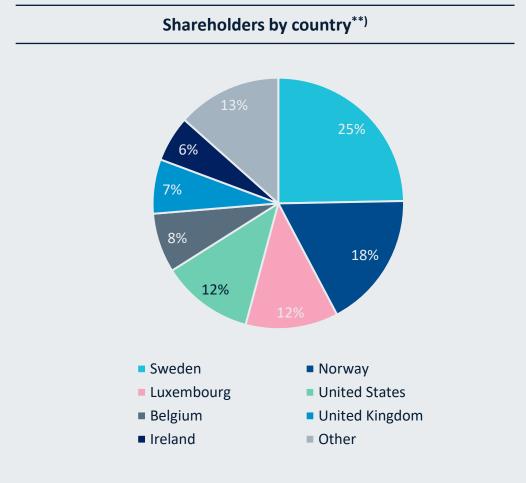
economy

- (a) climate change mitigation
- (b) climate change adaptation
- (c) sustainable use and protection of water and marine resources
- (d) transition to a circular economy
  - (e) pollution prevention and control
- (f) protection and restoration of biodiversity and ecosystems



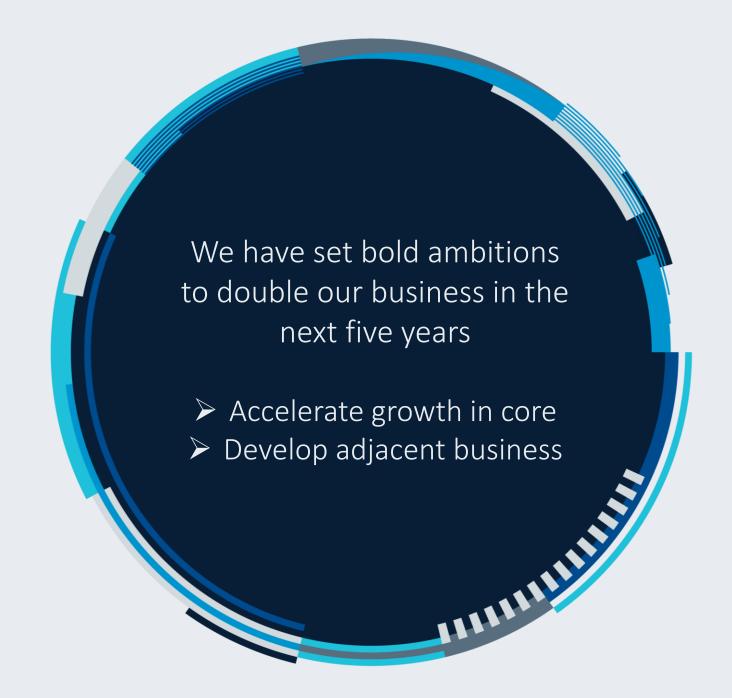
#### Shareholder structure

Top 10 shareholders as of 30 June 2022*)			
1	Investment AB Latour	62 400 000	21,1 %
2	Folketrygdfondet	23 399 710	7,9 %
3	APG Asset Management	14 189 128	4,8 %
4	BlackRock	11 556 173	3,9 %
5	Candriam	7 573 768	2,6 %
6	Handelsbanken	7 357 944	2,5 %
7	Vanguard	6 742 161	2,3 %
8	AllianceBernstein	5 280 594	1,8 %
9	Impax Asset Management	5 207 880	1,8 %
10	Alfred Berg Kapitalforvaltning	3 872 010	1,3 %
	Sum Top 10	147 579 368	49.9%
	Other shareholders	148 460 788	50.1%
	TOTAL (11.916 shareholders)	296 040 156	100.0%



<sup>\*\*)</sup> ownership data includes nominee accounts

TOMRA is uniquely positioned along global megatrends







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