



TOMRA

# Investor Presentation

5000

EMPLOYEES  
GLOBALLY



14.8

BILLION NOK  
REVENUES IN 2023

*Creating sensor-based solutions for optimal resource productivity - transforming how we obtain, use, and reuse resources*

Collection

Recycling

Food



Publicly listed on Oslo Stock Exchange (OSEBX: TOM)



TOMRA

Palauta tänne.

KÄYVÄSTÄ

TOMRA

Collection

reverse vending machines for bottle and can recycling





Food  
making every piece of food count





Leading market position



TOMRA is uniquely positioned along powerful global megatrends



50 years of know-how



Best-in-class technology



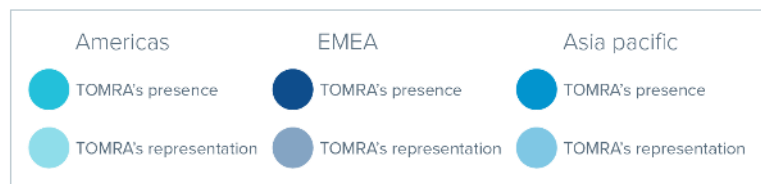
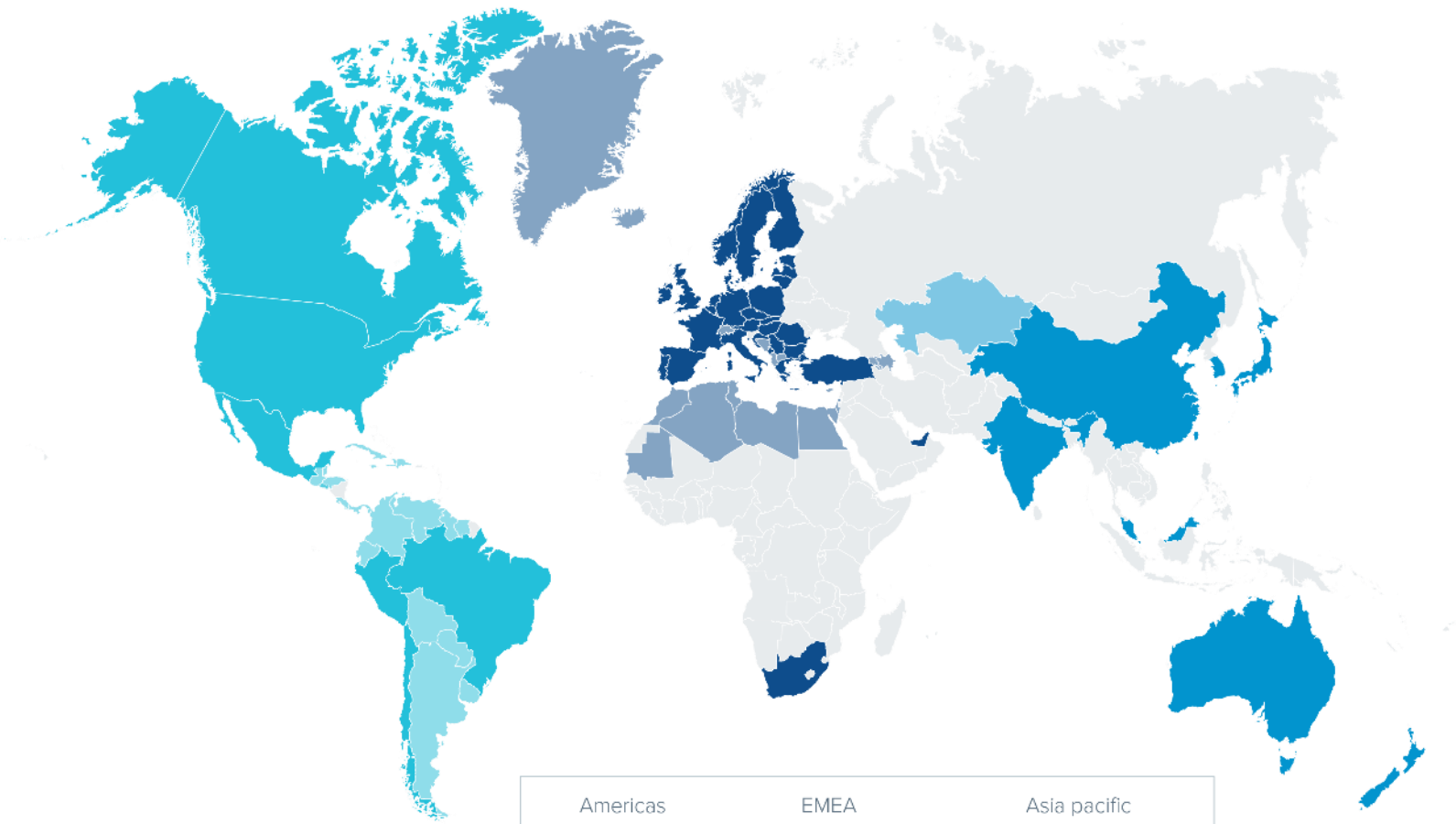
Purpose-driven employees



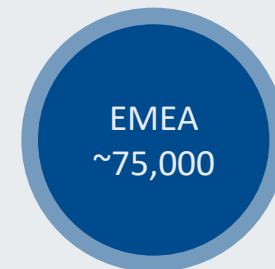
# Our vision is to Lead the Resource Revolution

It is our belief that businesses have the power and responsibility to help manage our planet's precious resources – today and tomorrow.

# TOMRA's global presence



Installed base ~105,000



	Collection	Recycling	Food
EMEA	~63,000	~6,300	~5,600
Americas	~14,000	~1,400	~6,300
Asia Pacific	~5,000	~1,300	~1,900
<b>Total</b>	<b>~82,000</b>	<b>~9,000</b>	<b>~13,800</b>





We have built a broad business platform...

... while keeping a strong entrepreneurial spirit

# TOMRA's transformation journey

mergers and acquisitions

## 2004 TITECH

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

## 2006 Commodas

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

## 2011

Sale of Californian material handling business. With the divestment the US operation became less exposed to movements in commodity prices.

## 2012 BEST

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.

## 2016 Compac

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.

## 2005 Orwak

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

## 2008 Ultrasort

TOMRA acquires Ultrasort - specialists in sensor-based mining technology.

## 2011 Odenberg

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

## 2014

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

## 2018 BBC Technologies

TOMRA complements its food sorting portfolio with the acquisition of BBC Technologies, a leading provider of precision turnkey solutions for blueberries and other small fruits.



TOMRA Collection



TOMRA Recycling



TOMRA Food

Each year, at least 8 million tons of plastics leak into the ocean.

That's the equivalent of one garbage truck every minute.

The New Plastics Economy  
World Economic Forum (2016)



But the tides are shifting. There's a desire for change...



**Consumer** demand for responsible plastic use options



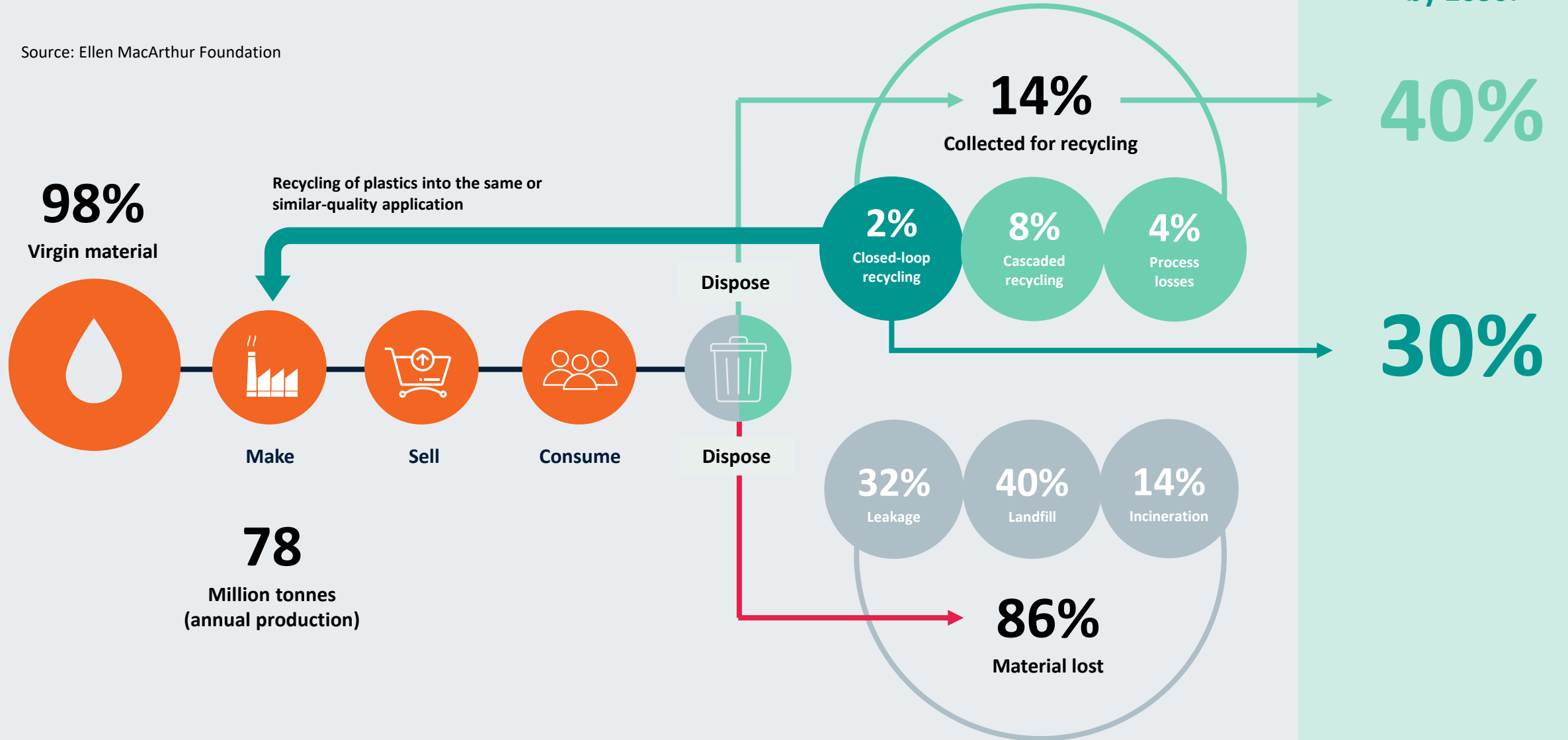
**Legislative** push for new plastic waste strategies



**Market** pull from large brand owners and companies

# Today: post-consumer plastic packaging is treated linear instead of circular

Source: Ellen MacArthur Foundation



Our experience and technologically advanced solutions help create circular value chains that benefit business and society.



# TOMRA Collection



TOMRA Collection

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

~8.0

billion NOK  
in revenue



~82,000

machines in  
operation



Collecting  
**46 billion**  
containers a year



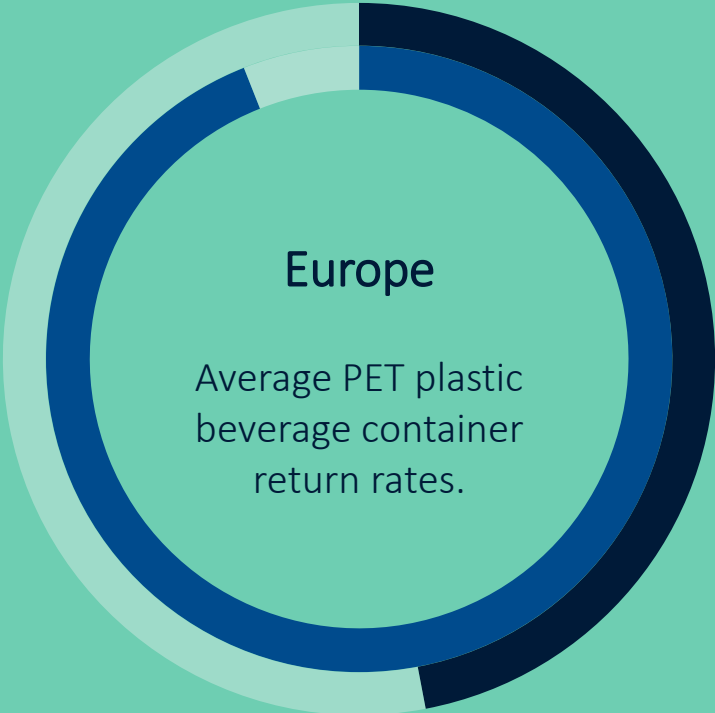


Over 45 billion drink containers  
collected in 2022



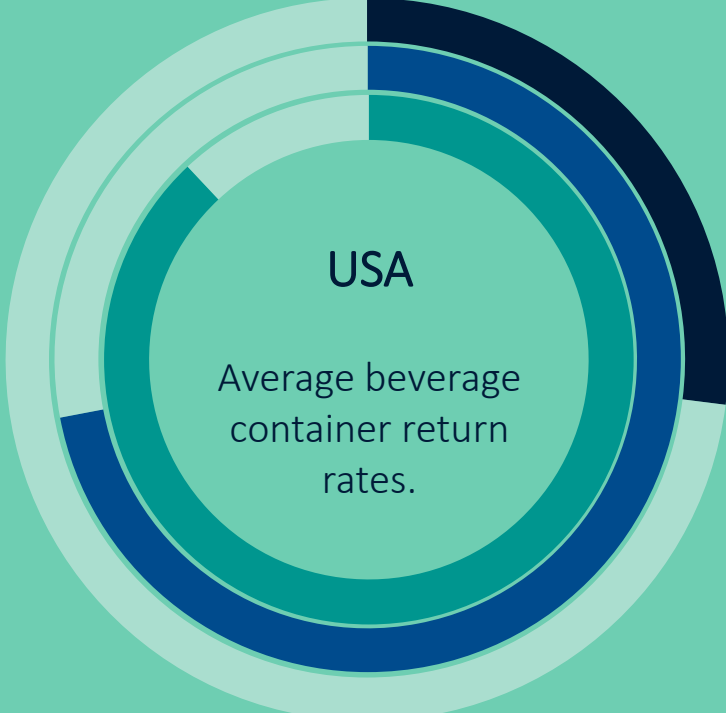
This represents only 3% of all beverage containers.

# Deposit return systems enable Clean Loop Recycling



47%  
Containers **without**  
a deposit

94%  
Containers **with**  
a deposit



27%  
Containers **without**  
a deposit<sup>1</sup>

72%  
Containers **with**  
a deposit<sup>1</sup>

88%  
Containers in high-  
performing DRS<sup>2</sup>

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

# Recent launched and upcoming deposit markets

**Quebec:**  
Deposit system expanded 2023

**Connecticut:**  
Existing deposit system modernized in 2024

**Ireland:**  
Deposit system launched in 2024

**Poland:**  
Deposit system to be implemented in 2025

**Hungary:**  
Deposit system implemented 2024

**Romania:**  
Deposit system implemented 2023

**Austria:**  
Deposit system to be implemented 2025

**Singapore:**  
Deposit system to be implemented 2025

**Victoria:**  
Deposit system launched November 2023

**New Zealand**  
Deposit system proposed for 2025

## Collection target for plastic bottles:

- 77% by 2025
- 90% by 2029

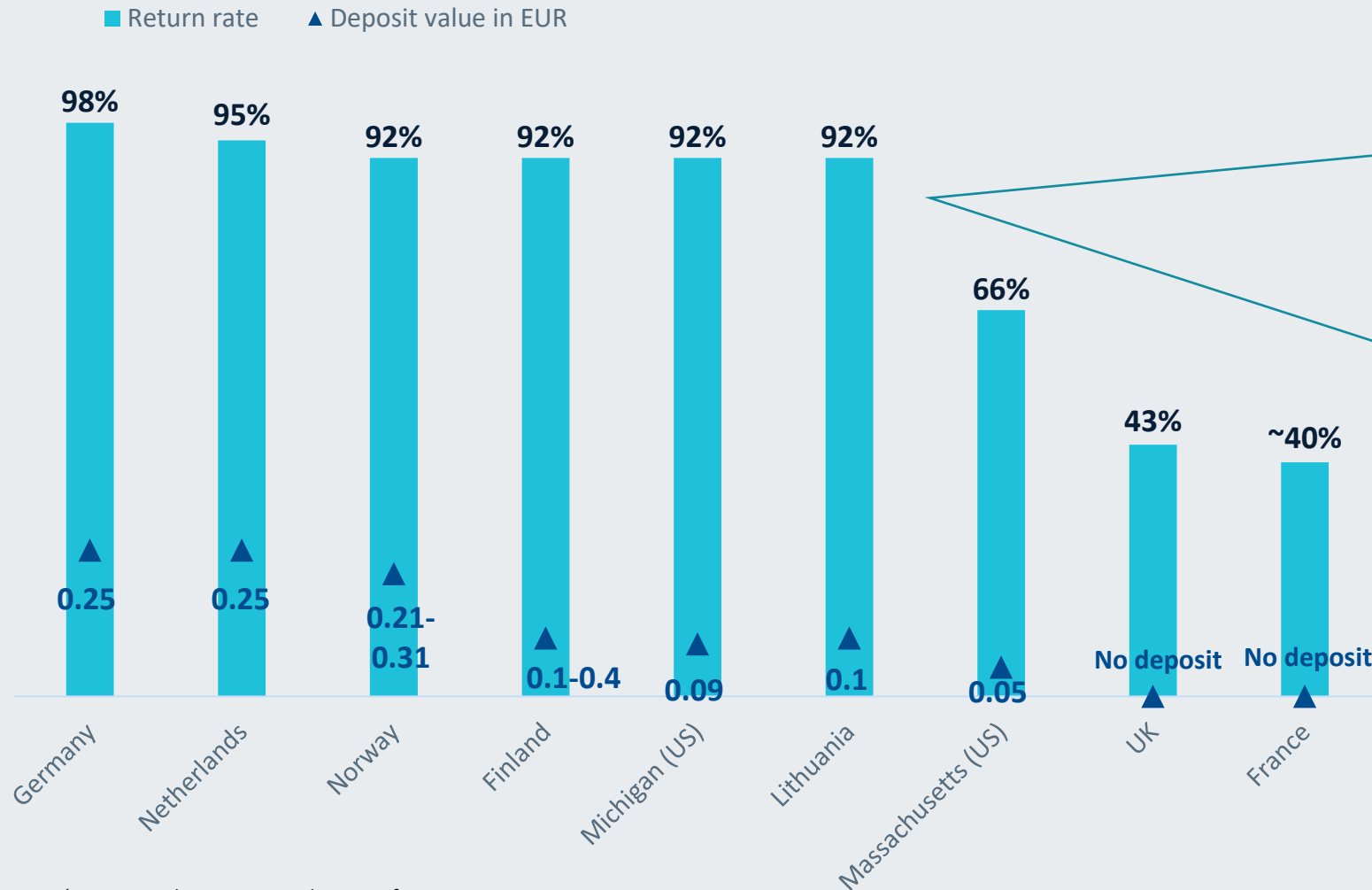
## Recycled content in product design:

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

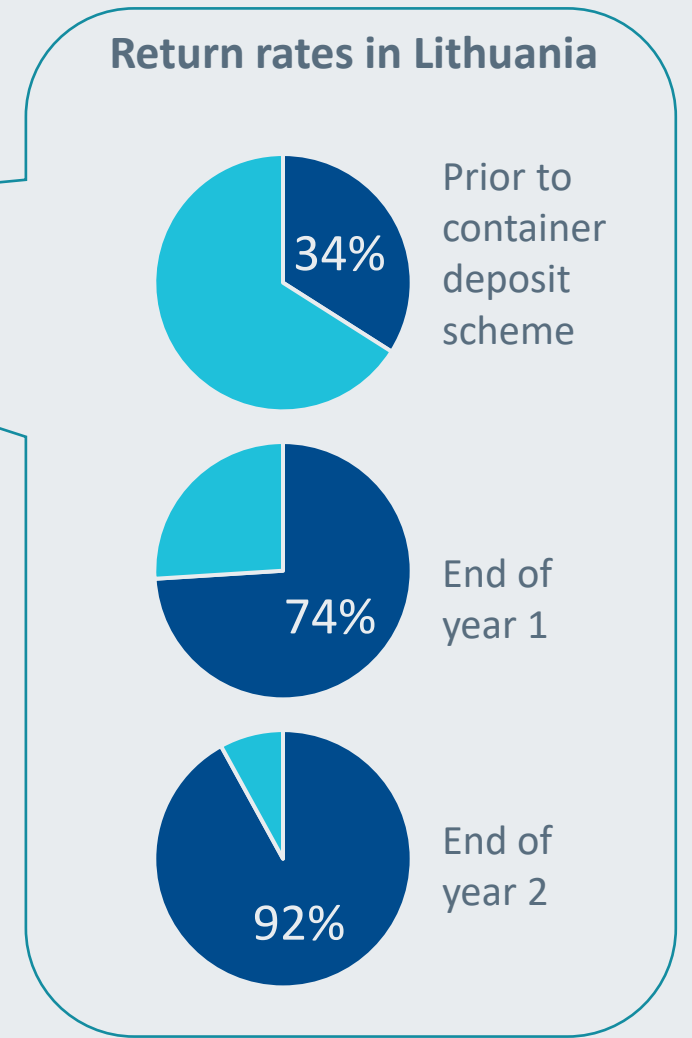
## EU Single-Use Plastic Directive:

Targets on recycled content and collection target for plastic bottles. Deposit scheme mentioned as a mean to reach those targets.

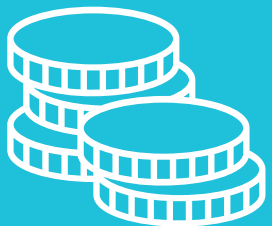
# High collection rates achieved in two years' time



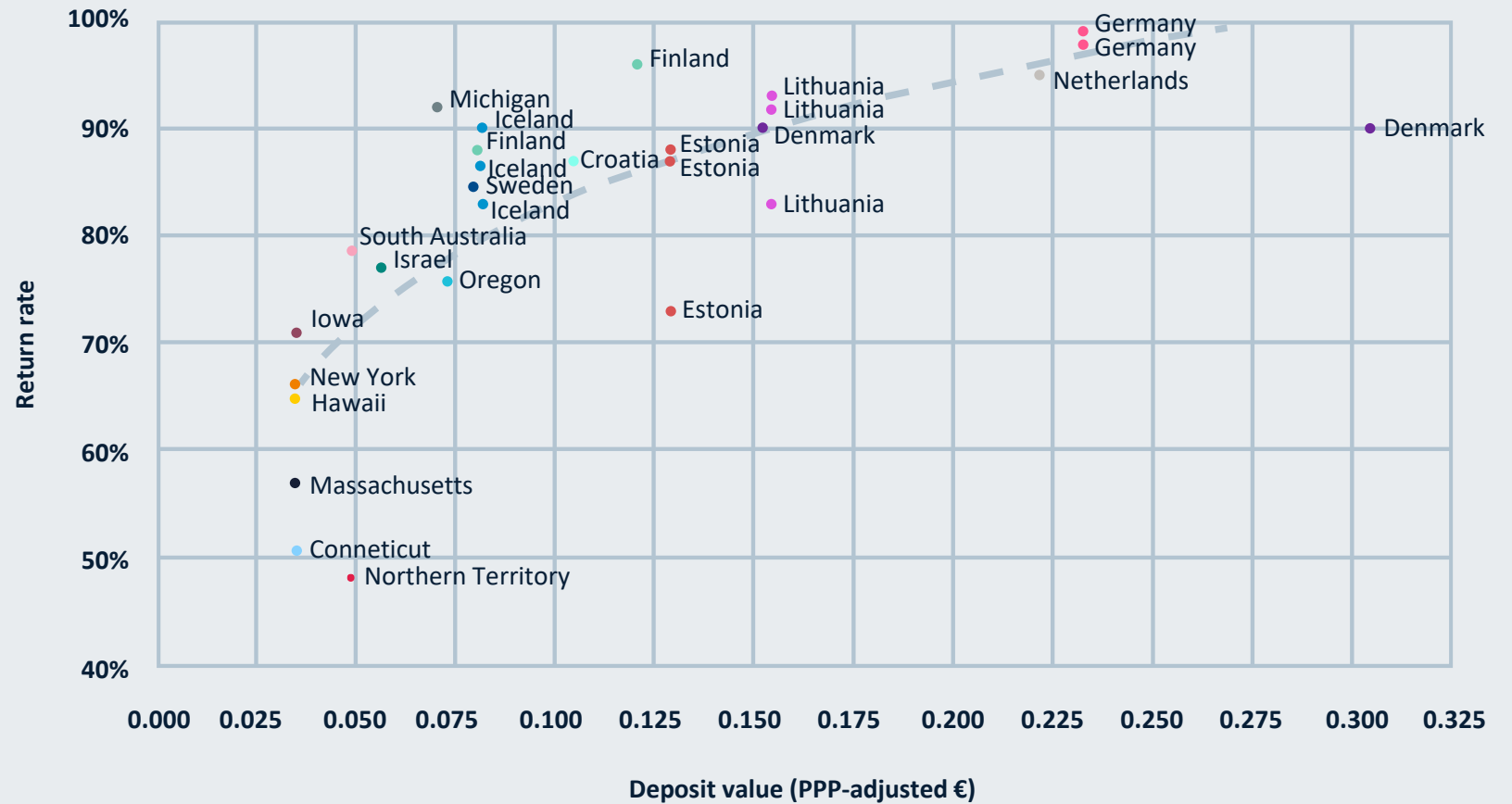
\*Deposit values converted to EUR for comparison purpose



A meaningful deposit value is the strongest driver of results



Return rates compared to purchasing power parity-adjusted deposit values - € (2018)



High-performing systems are achieving good results with a deposit of €0.10 (PPP-adjusted)

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

EUROPE

AUS NORTH AMERICA

ASIA

LATIN AMERICA AFRICA



Collection targets for plastic beverage bottles

**77%** 2025 **90%** 2029



Targets for recycled content in plastic beverage bottles

**25%** 2025 **30%** 2030



Continued work with governments to implement best practice deposit legislation



Innovate solutions that trigger modernizations and increased demand

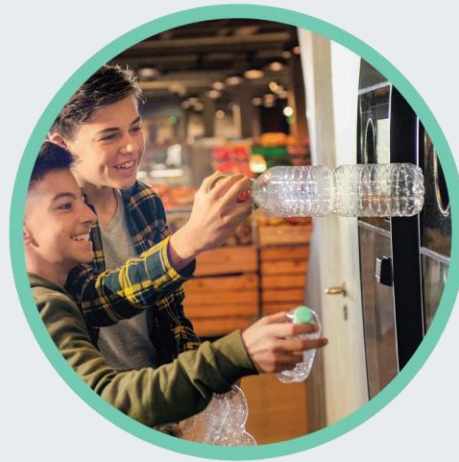
# The four principles of high-performing deposit return systems

## PERFORMANCE



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

## CONVENIENCE



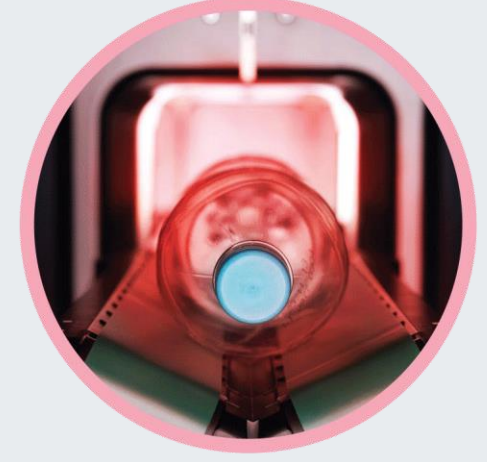
The redemption system is **easy, accessible and fair** for everyone.

## PRODUCER RESPONSIBILITY



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

## SYSTEM INTEGRITY

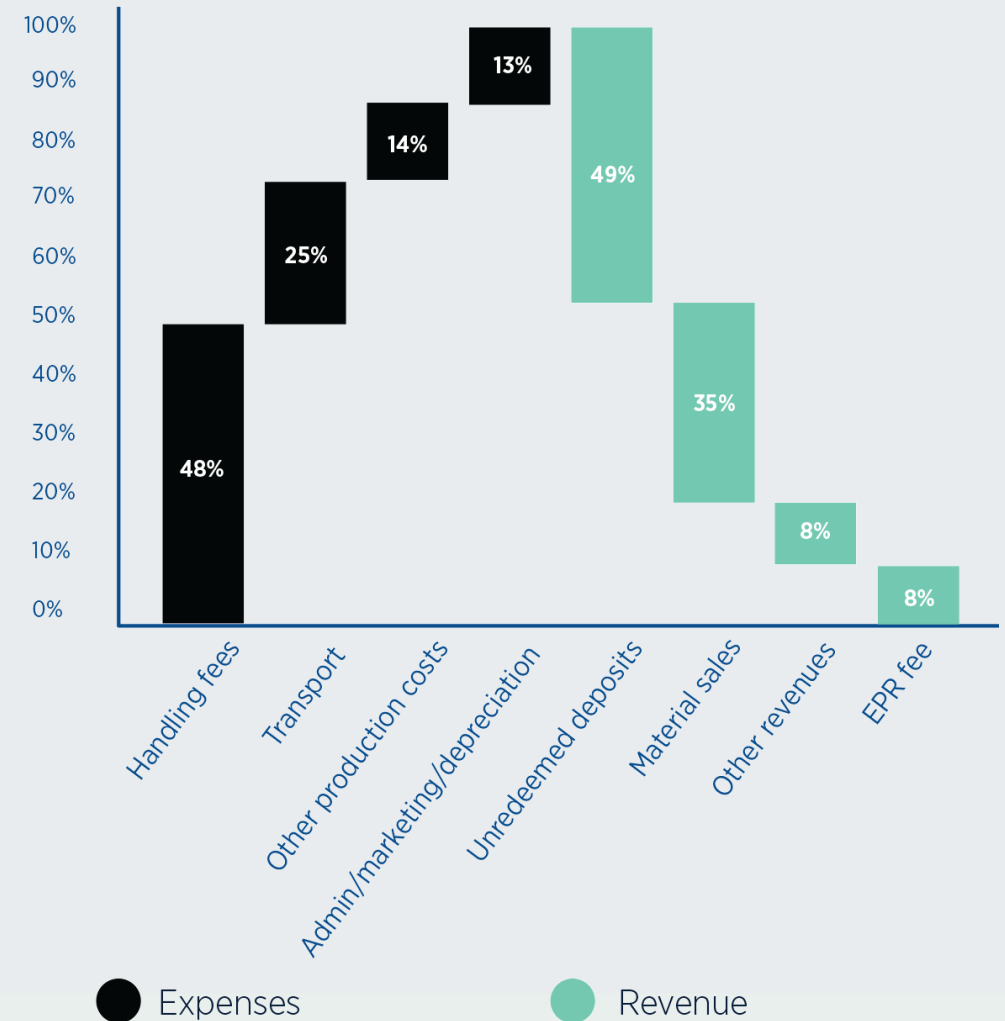


**Trust is built into the system's processes** through transparent management, a data-driven clearinghouse, and reliable redemption technology.

# Reinvestment of unredeemed deposits and material revenue within the system

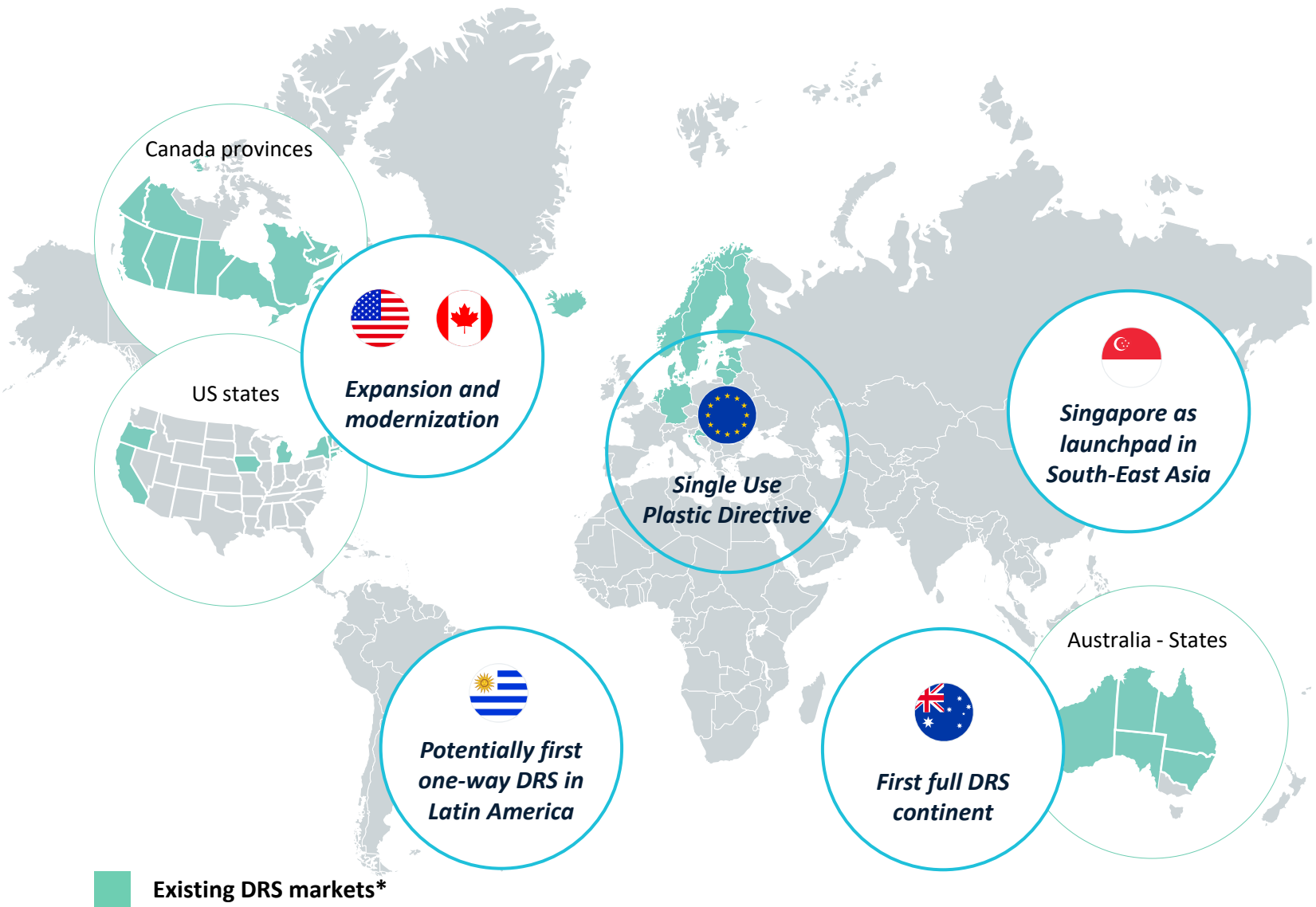
In Norway  
**over 80%** of the  
system's costs are  
covered by  
unredeemed deposits  
and material revenue

## Profit and loss overview of Norway's Central System Administrator (2019)





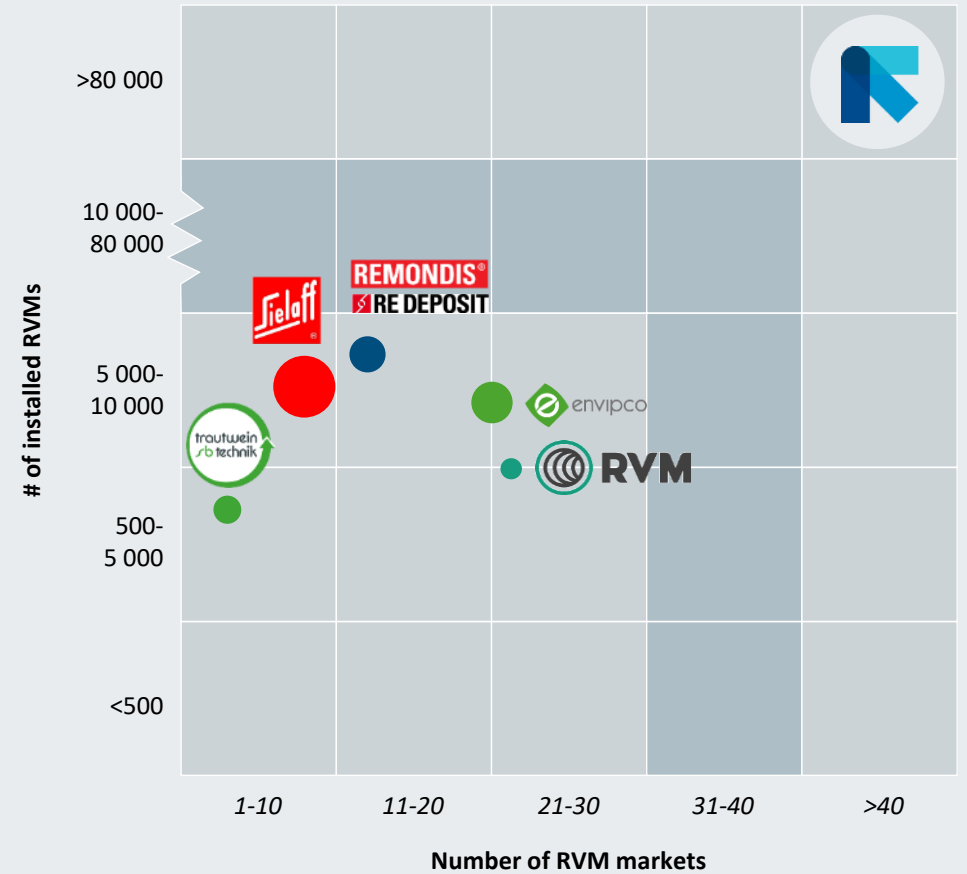
# Legislative outlook supports new and expanded Deposit Return Scheme (DRS) markets towards 2030



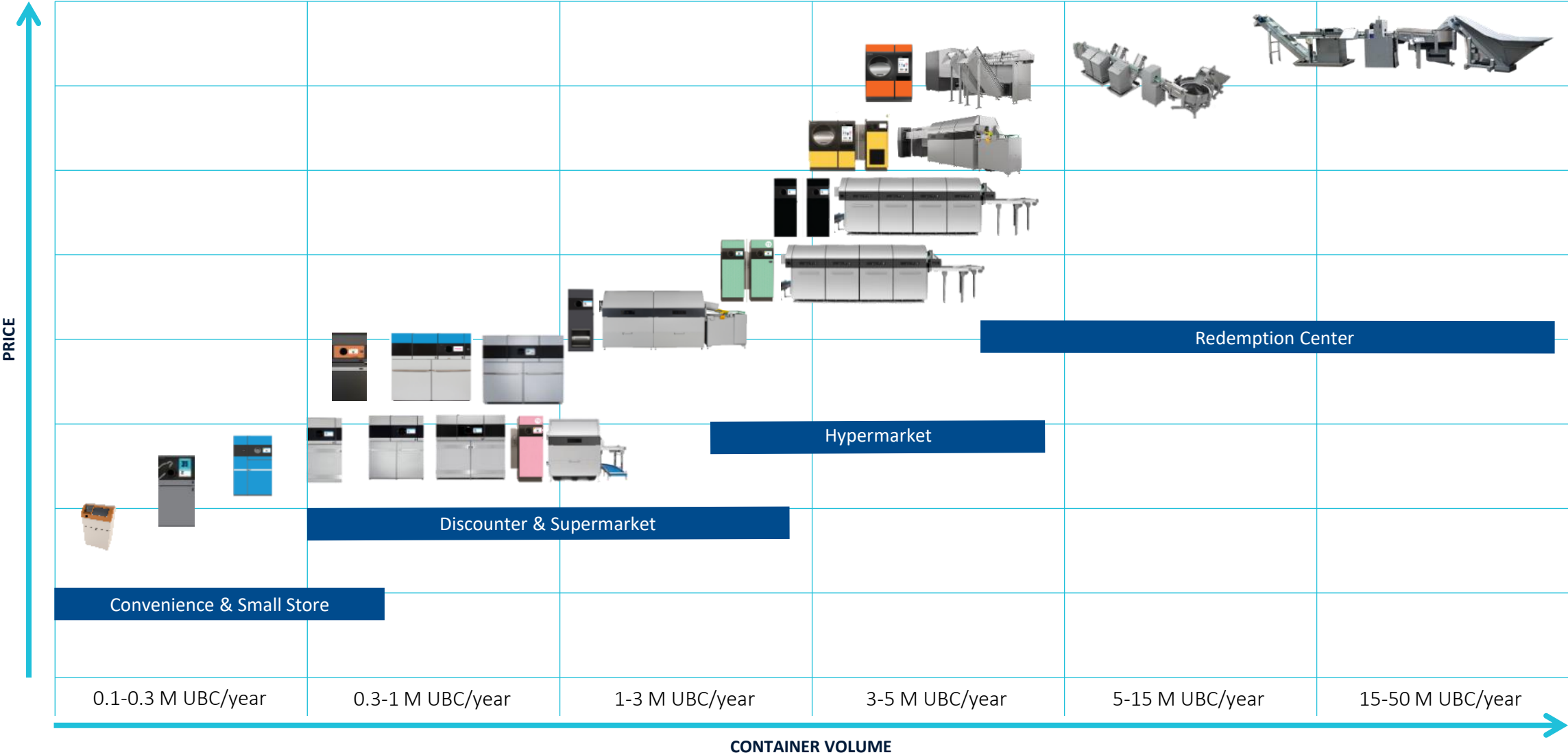
Existing DRS markets\*

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

# Preferred partner in reverse vending solutions



# Our reverse vending portfolio



# Business model expertise across deposit systems



Retail



Other


### Sales & Service model







-  Upfront equipment revenue
-  Recurring service revenues
-  Proven track record
-  Lower risk

Retailer purchases and takes the ownership of the RVM and TOMRA provides services

### Throughput model

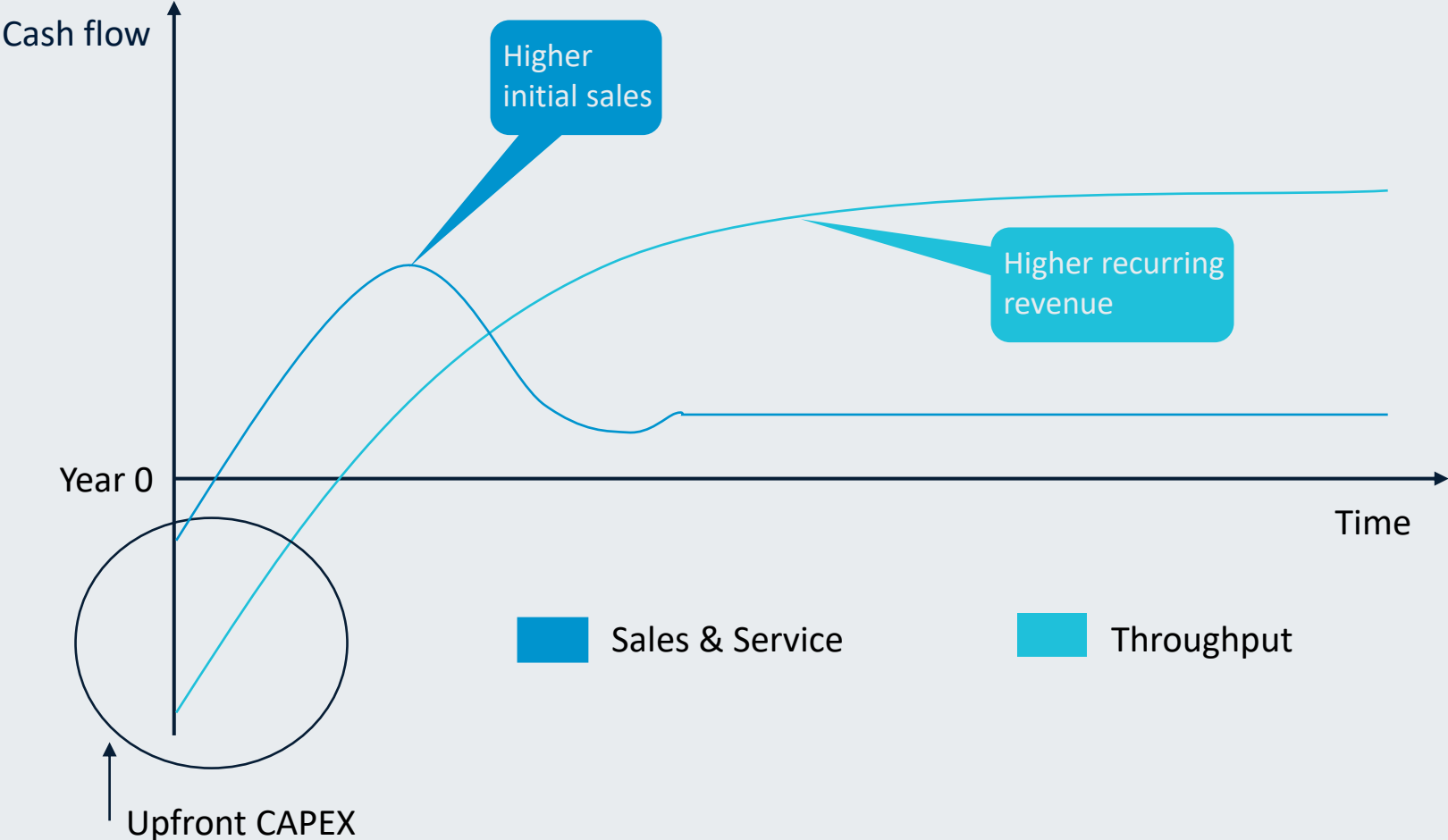


-  High recurring Revenue
-  Swift roll-out
-  Aligned interests
-  Utilize financial strength

TOMRA owns and operates the RVM and receives a fee per container handled by the RVM

# Cash flow profiles of the two business models

Illustrative cash flow profiles per machine



# Advanced digital platform leveraged across stakeholder groups



TOMRA Productivity Gain



Consumer Engagement



API/Data System Integration



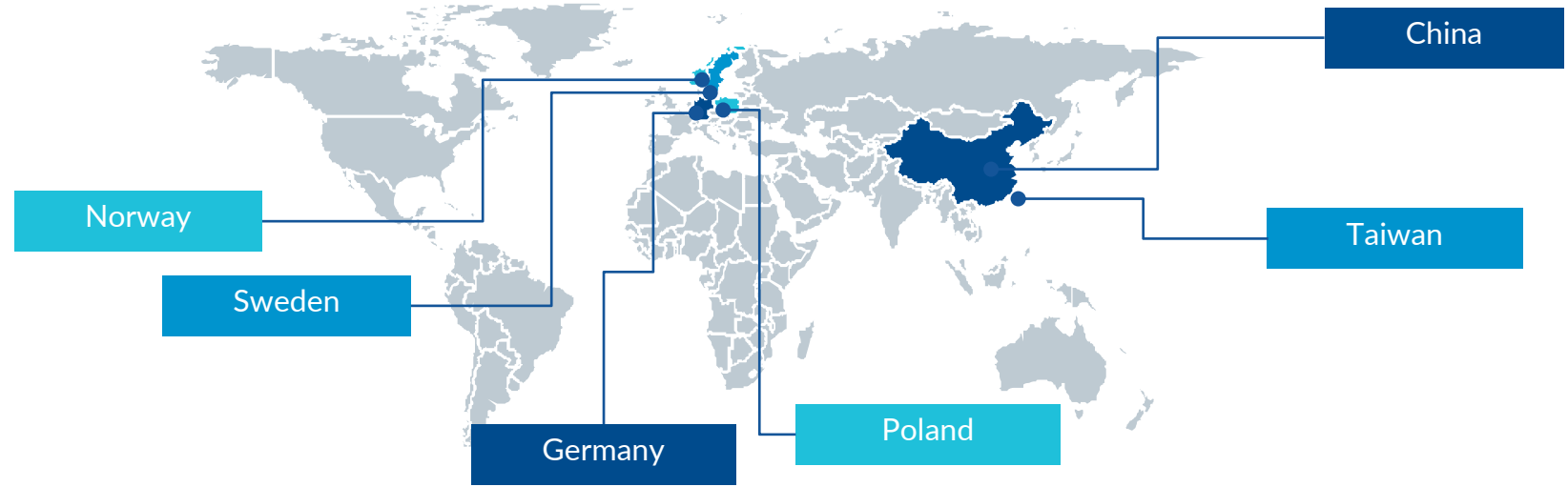
Retail Productivity Gain

**DIGITAL PLATFORM**

# Global Supply Chain

Optimize global sourcing and production set-up

Current supply chain with country origin on purchased material



## 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)



Our Big Hairy Audacious Goal

**500  
BILLION**

empty beverage containers  
handled by TOMRA equipment  
and collected for  
clean loop recycling



# TOMRA Recycling



# TOMRA Recycling

Transforming resource recovery through advanced waste and metals sorting that **turns waste into value.**

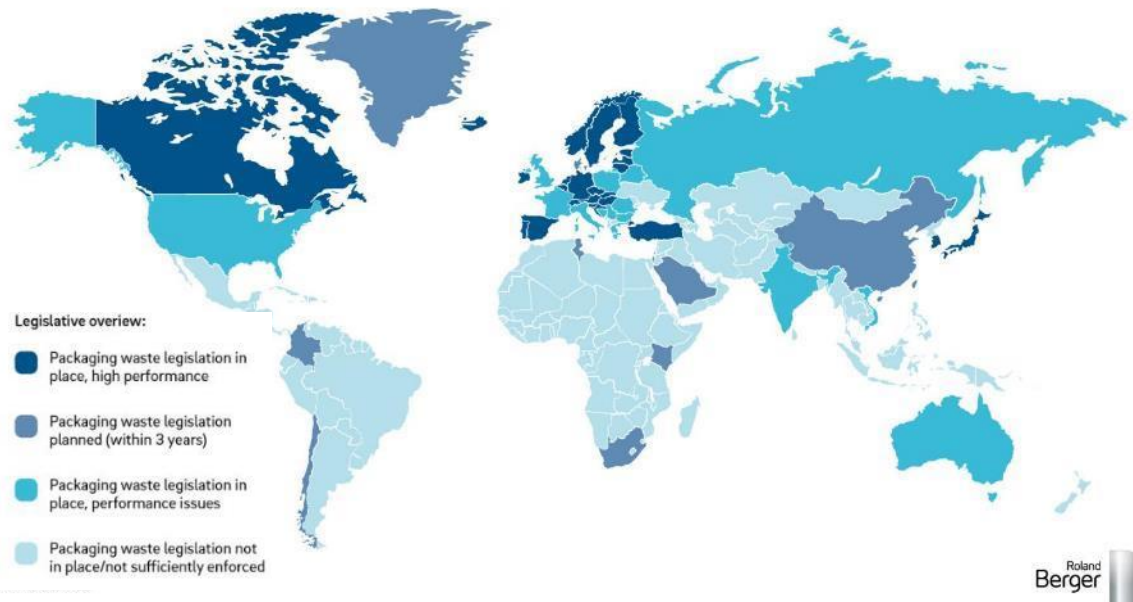
At least **33%**  
of waste is not managed  
in an environmentally  
safe manner

The world generates  
**2.01 billion**  
tons of municipal solid  
waste annually.

TOMRA's smart  
sorting machines  
**maximize resource  
recovery**

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

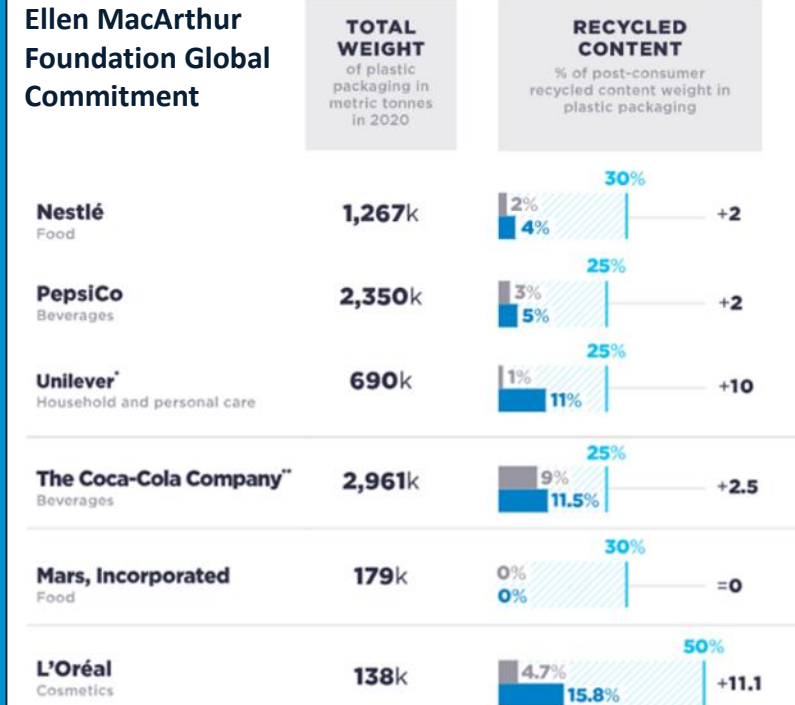
## Overview of legislation for packaging waste at global-level



Extended Producer Responsibility policy is a key element, complemented by quotas, taxes, bans, and mandatory recycled content targets.

<https://www.rolandberger.com/en/Insights/Publications/Packaging-sustainability-2030.html>

## Ellen MacArthur Foundation Global Commitment



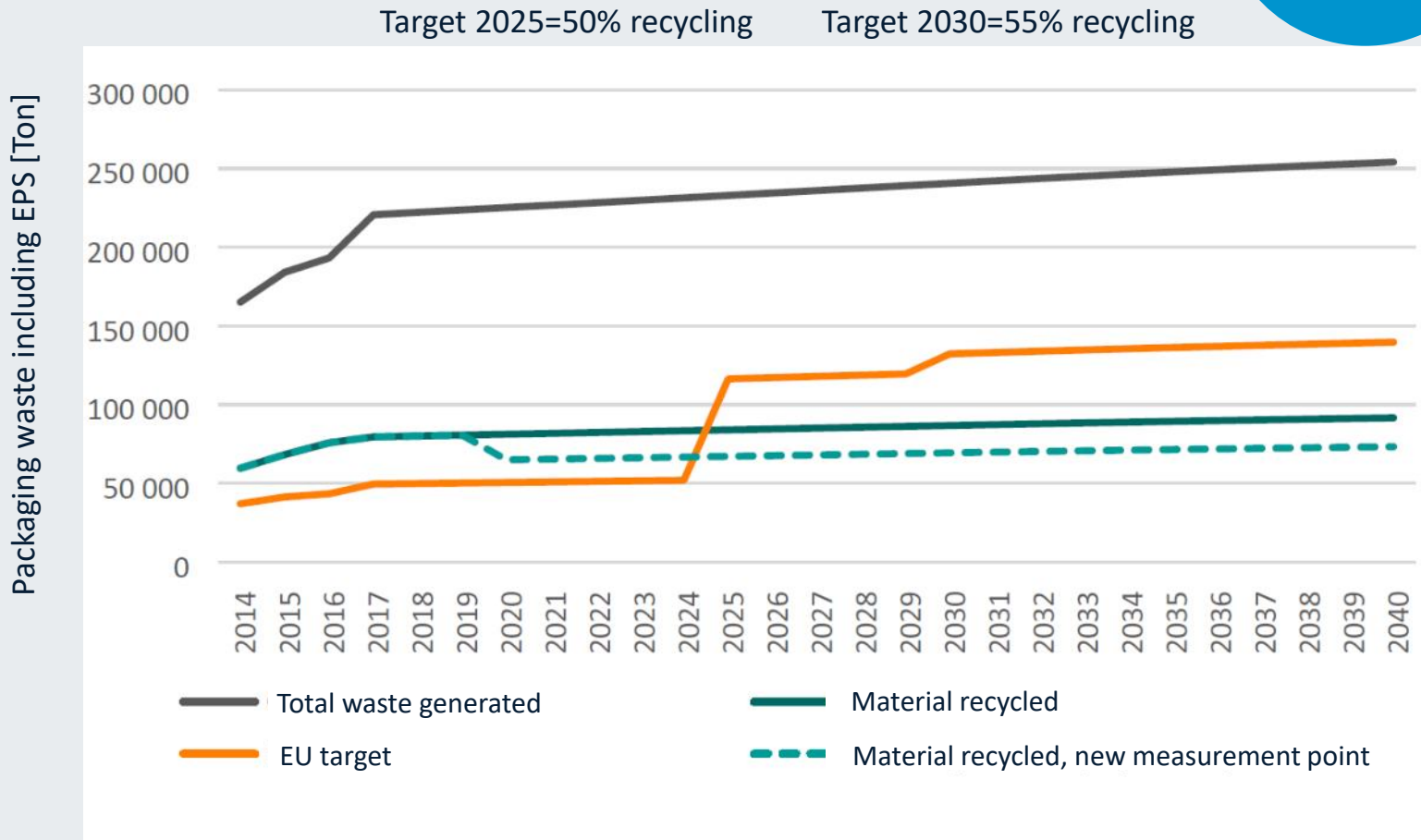
Several strong commitments have been made; however, brands are still far away from reaching them.

<https://ellenmacarthurfoundation.org/global-commitment/overview>

Example:  
Norway

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

<sup>1</sup> Packaging and Packaging Waste Directive



Source: Utkast til høringsnotat med konsekvensutredning, Miljødirektoratet, February 27<sup>th</sup> 2020

# Strong commitment from the industry to use recycled polymers

## Selected global commitments (non-exhaustive)



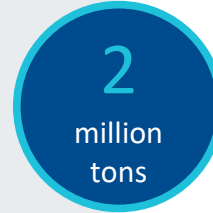
“Our ambition is to use 1 million tons of plastic waste a year in our global chemical plants by 2025”



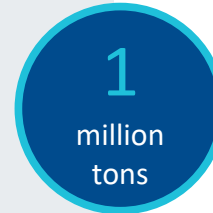
“Produce and market 2 million tons of recycled and renewable based polymers annually by 2030”



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



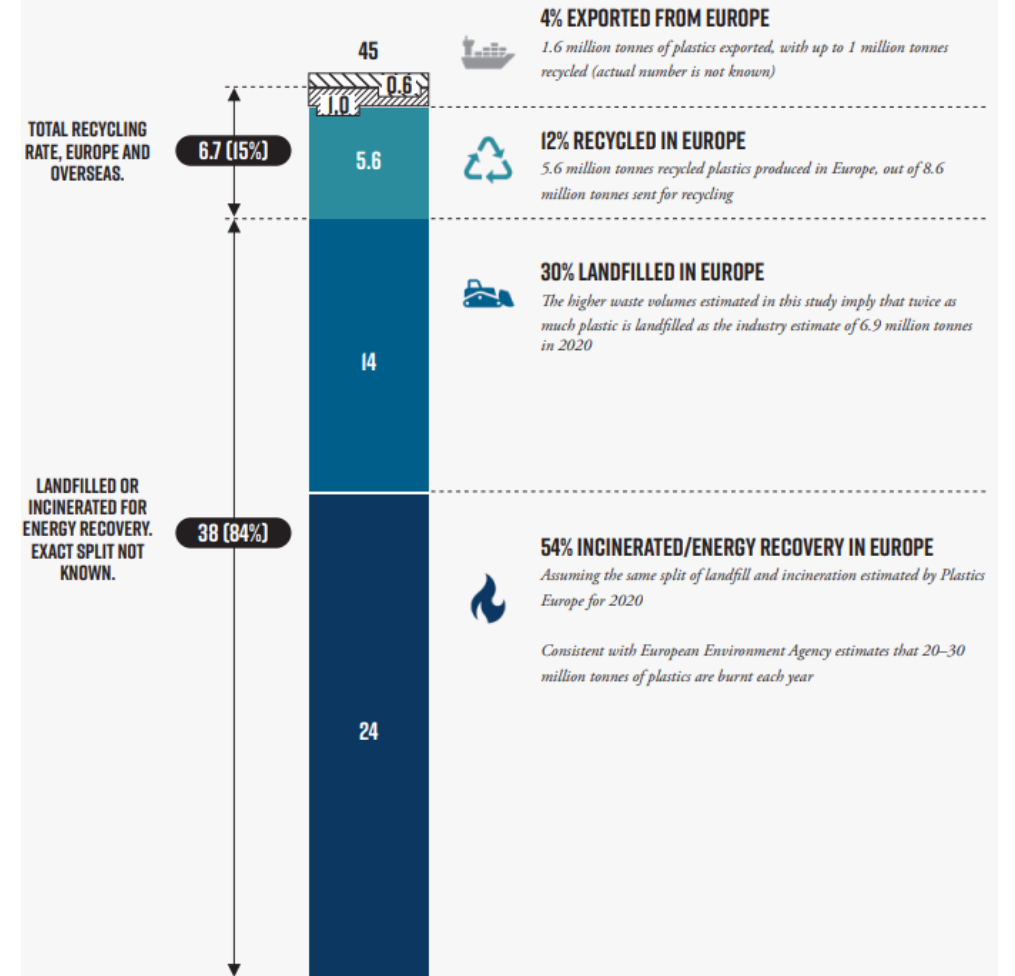
“By 2030, Dow will enable 1 million tons of plastic to be collected, reused or recycled through its direct actions and partnerships”



+ others

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

TREATMENT OF EUROPEAN END-OF-LIFE PLASTICS, 2020  
MILLION TONNES



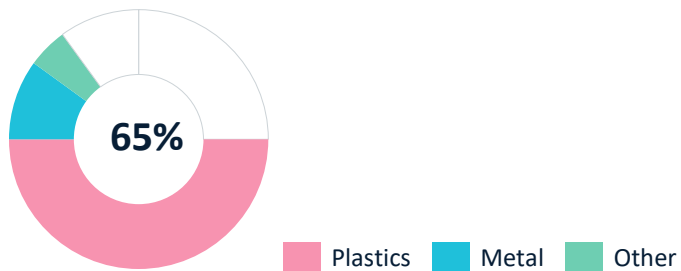
# Sorting is essential for a circular economy



## Waste sorting segment

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

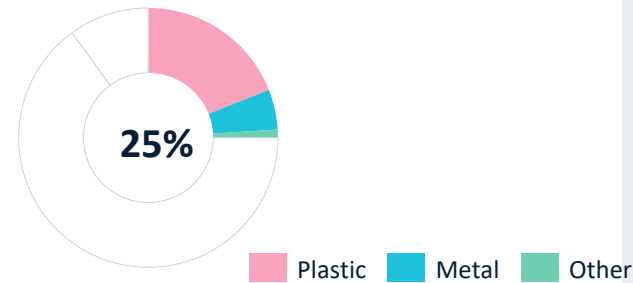
Segment share of installed base



## Recycling segment

Upgrade material to pure fractions for high quality recycling

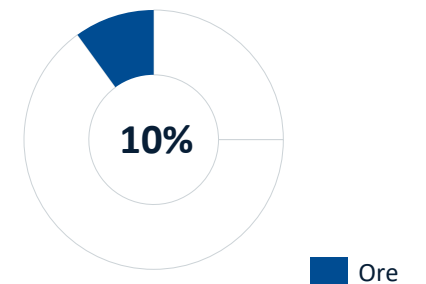
Segment share of installed base



## Ore sorting segment

Recovery and ore sorting to reduce environmental impact

Segment share of installed base

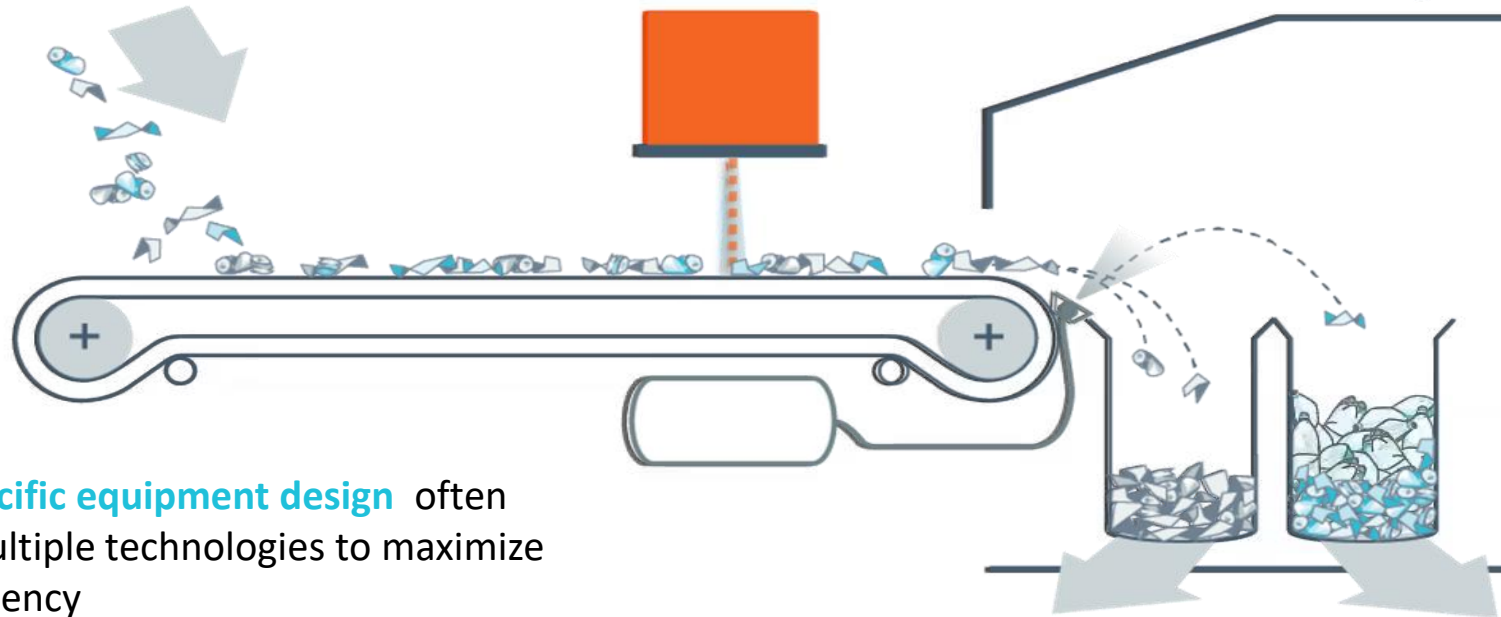


# How does sensor-based separation work?

Feeding of unsorted material

High-tech sensors to **identify objects**

Automated sorting process using different sensors for different sorting tasks

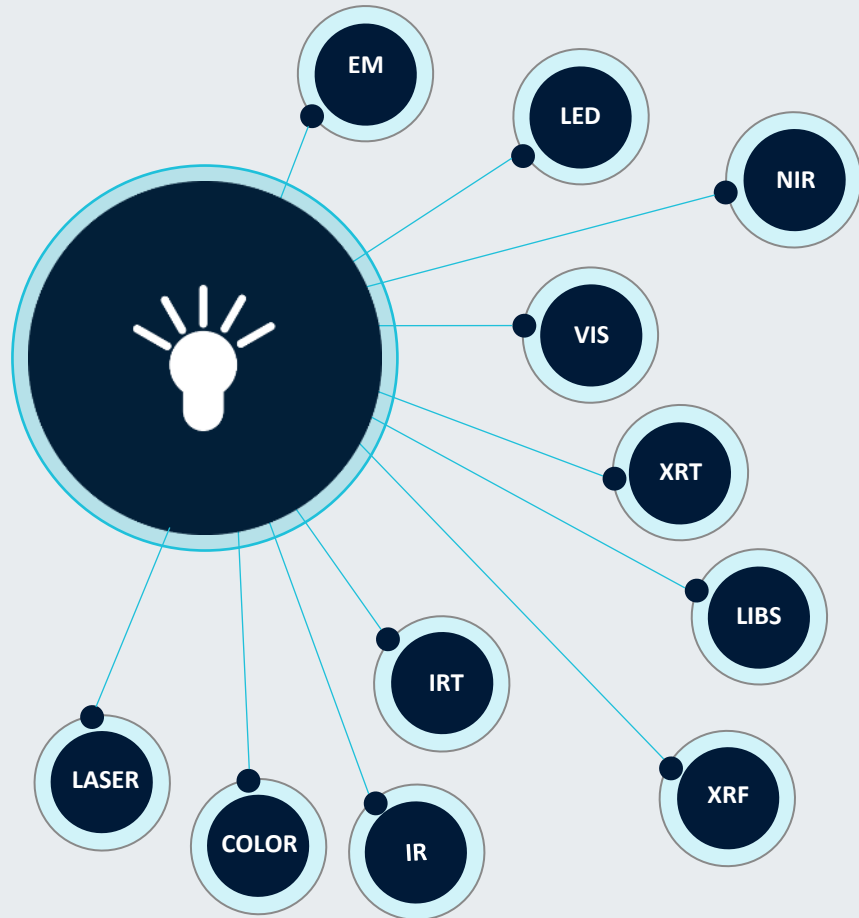


**Precise ejection** by ultra fast air jets

**Product specific equipment design** often including multiple technologies to maximize sorting efficiency

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

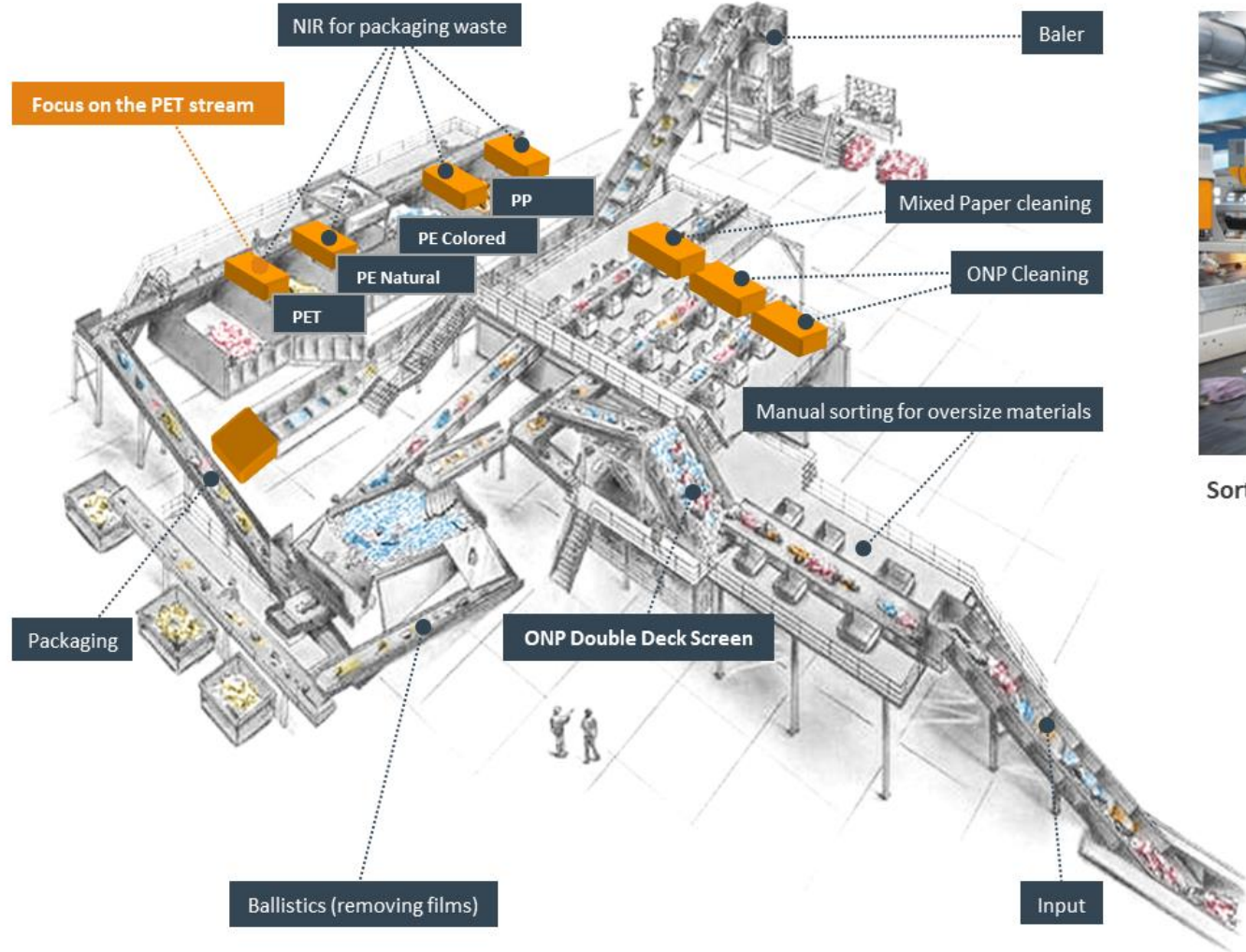
# A broad sensor-based technology portfolio



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



# Automation with TOMRA units



Sorting of Municipal Solid Waste, Cyprus

# Our solutions enable recovery of recyclables from different waste streams

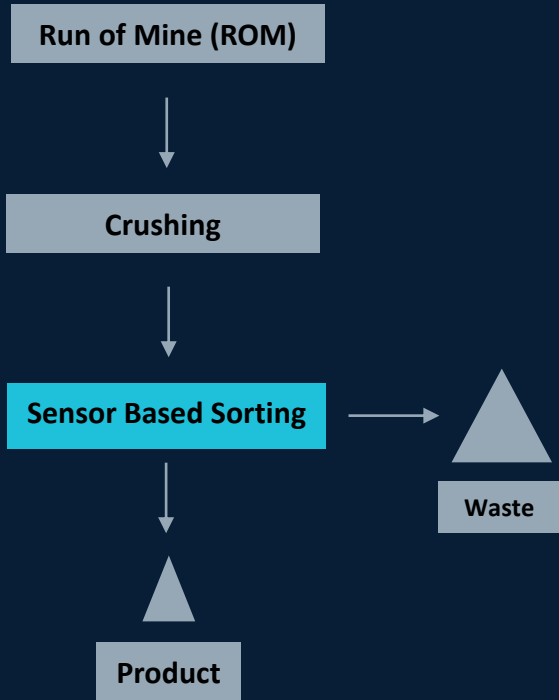


A modern packaging sorting plant can contain up to 60 NIR sorters

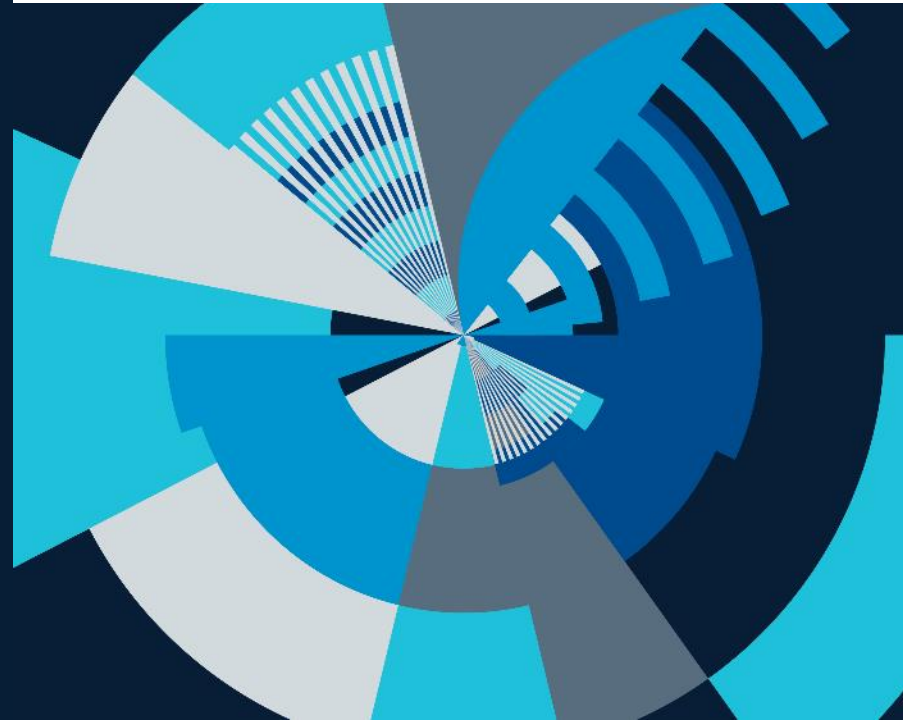
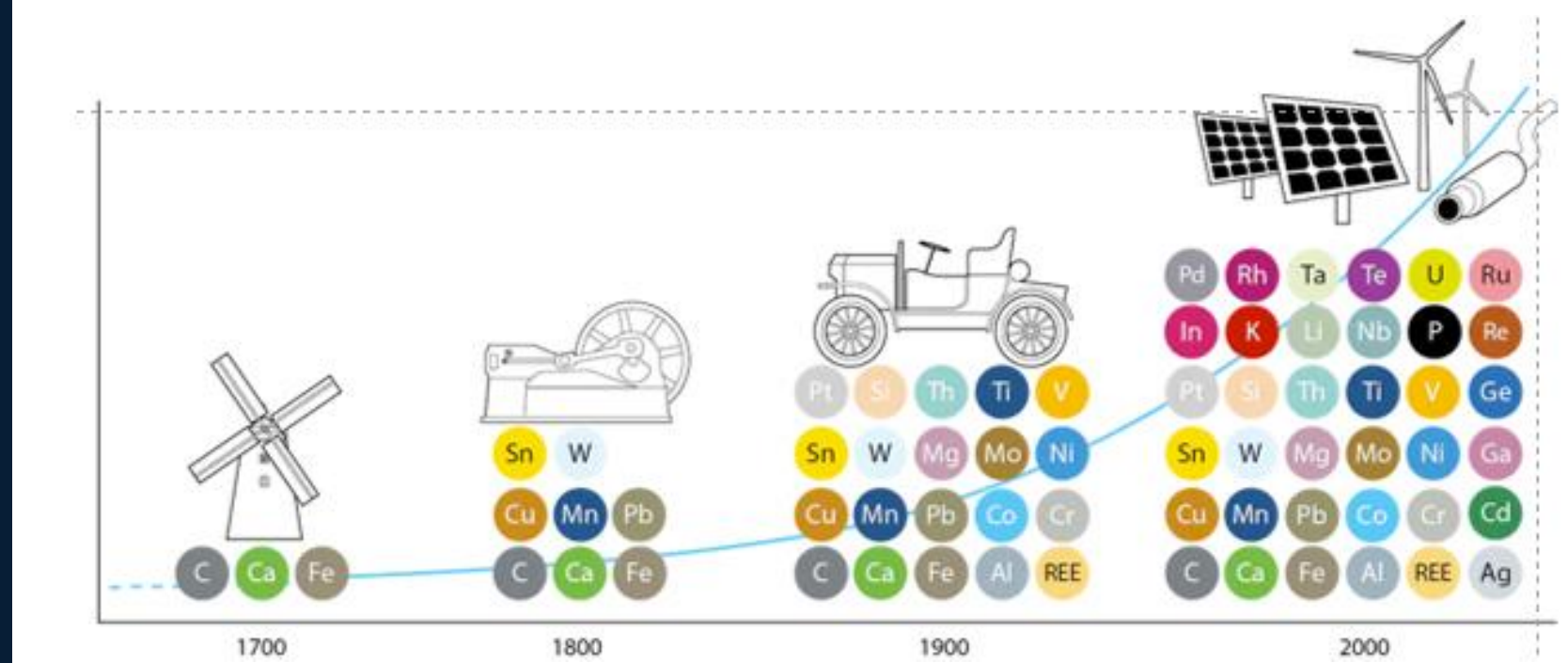


Our solutions can also recover valuables from residual waste streams

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



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



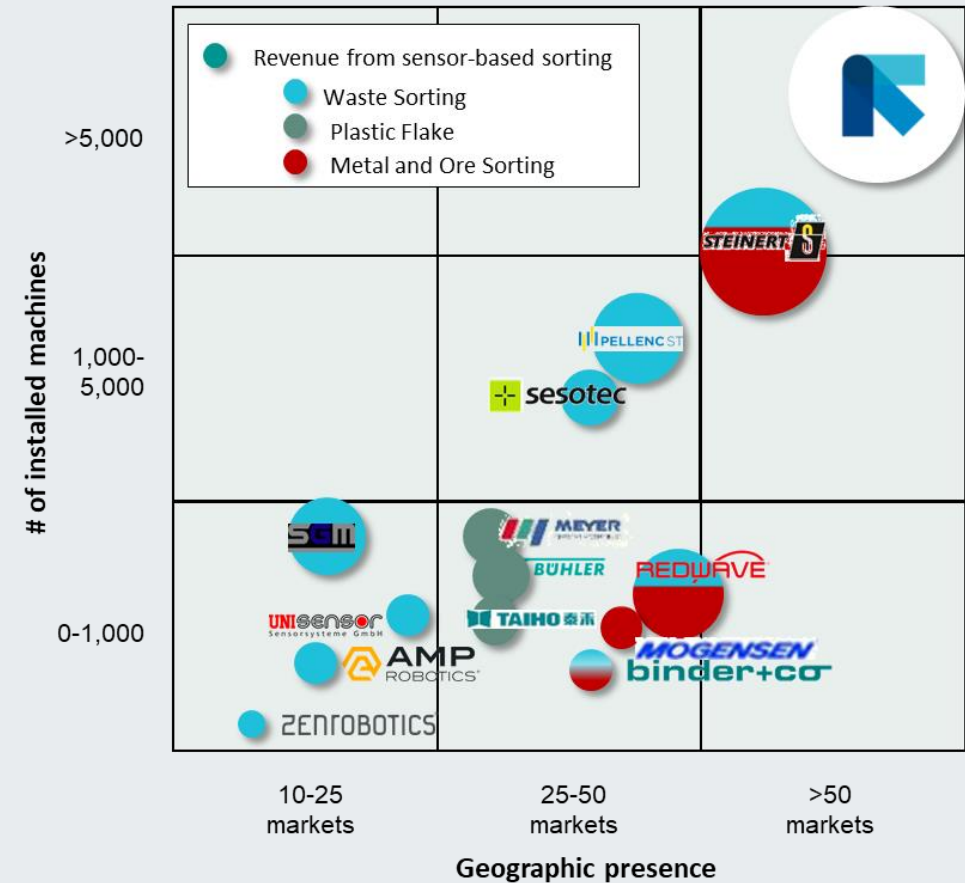
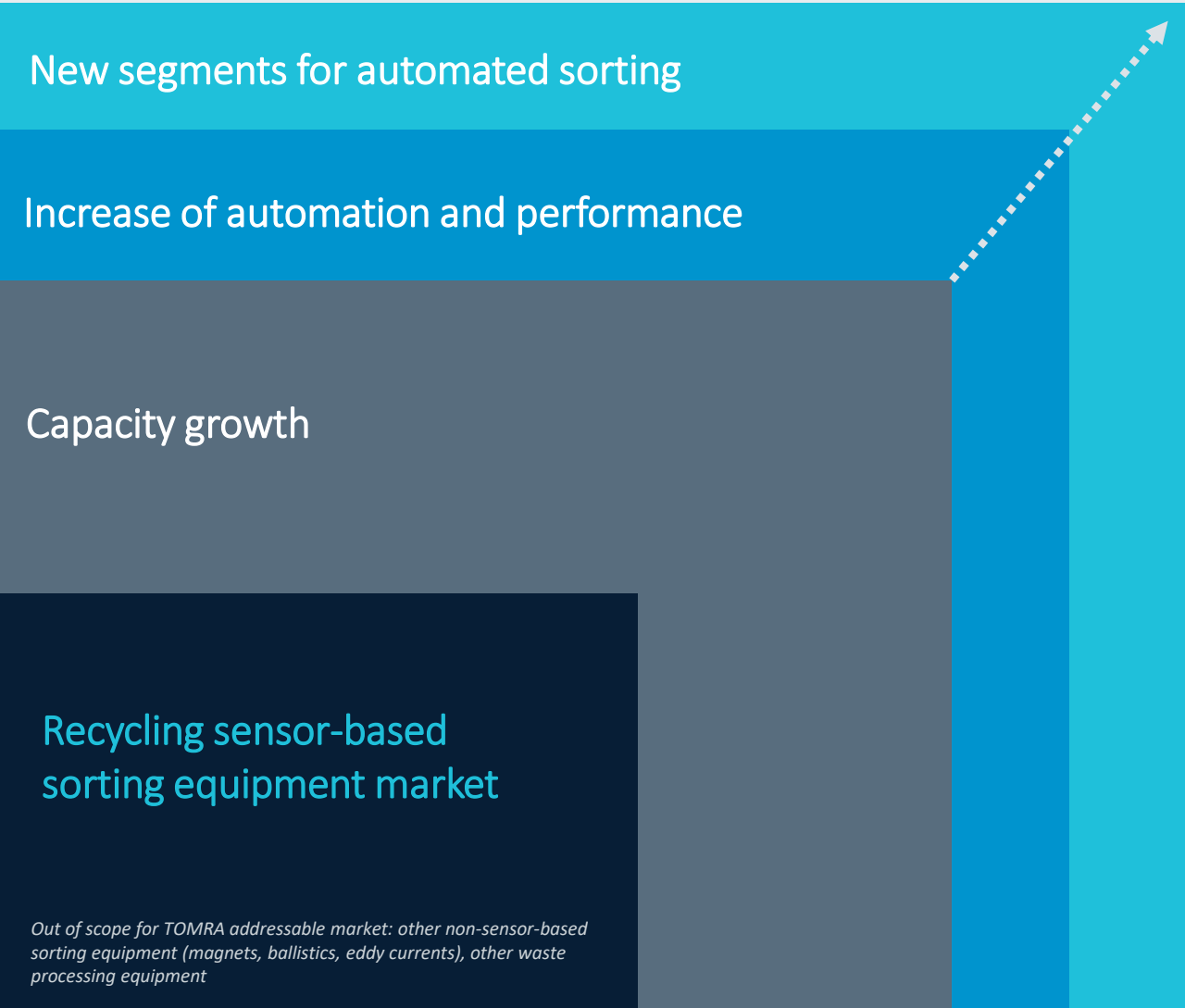
# Our ore sorting solutions enable the mining industry to reduce their footprint

Ore sorting is used to:

- Reduce operational footprint by splitting the “good” and the “bad” materials early in the process
- Extend the lifetime of a mine
- Reclaim valuables for stockpiles

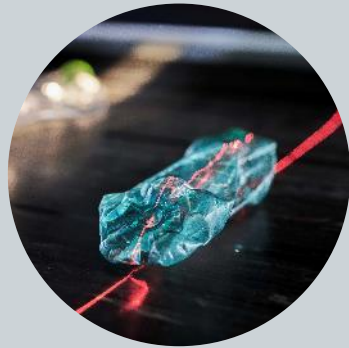
EFFECT OF SENSOR-BASED SORTING (SBS)	VALUE-ADD:		SAVINGS
	ENVIRONMENT	COST & PRODUCTIVITY	
Decreased energy consumption (Transport, pumping & dewatering, disposals)	✓	✓	<ul style="list-style-type: none"> <li>• 15 kWh saved per ton of material</li> <li>• 2% to 3% of the world energy consumption is used for crushing, screening and milling</li> </ul>
Decreased water consumption (Cooling, transport in the process)	✓	✓	<ul style="list-style-type: none"> <li>• 3 to 4 m<sup>3</sup> water saved per ton of material</li> </ul>
Reduced carbon footprint	✓	✓	<ul style="list-style-type: none"> <li>• CO<sub>2</sub>/Green counter, 7.5 kg per ton of material sorted</li> <li>• TOMRA Sorters saved ~124,000 metric tons of CO<sub>2</sub> in 2018</li> </ul>
Decreased Transport cost		✓	<ul style="list-style-type: none"> <li>• Costs down €0.30/ton/km</li> </ul>
Chemical usage decrease (Flotation reagents, acid for leaching and cyanide)	✓	✓	<ul style="list-style-type: none"> <li>• A few grams up to a few kilos per ton</li> </ul>
Reduced tailings (fine particles)	✓	✓	<ul style="list-style-type: none"> <li>• 3 m<sup>3</sup> tailings volume per ton (2 m<sup>3</sup> material plus 1 m<sup>3</sup> water)</li> </ul>
Productivity increase (De-bottleneck conventional process)		✓	<ul style="list-style-type: none"> <li>• Per ton of waste 1 additional ton of ore production</li> </ul>
Lifetime of Mine increased	✓	✓	<ul style="list-style-type: none"> <li>• 30-50% longer life of a mine</li> </ul>
Waste into value (Create sellable product)	✓	✓	<ul style="list-style-type: none"> <li>• The coarse waste rejected can be sold (for a low price)</li> </ul>
Legislation		✓	<ul style="list-style-type: none"> <li>• Up to 3 years quicker approvals</li> </ul>
Reduced cut-off grade (Higher dilution in the mine, process marginal dumps)		✓	<ul style="list-style-type: none"> <li>• 30-50% more reserves</li> </ul>

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



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

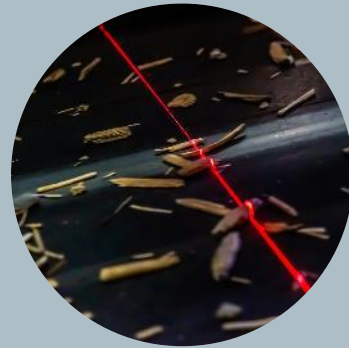
# Our solutions close the loop by enabling high quality recycling



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

## Accelerate growth

Increase the recovery of recyclables

Enable high quality closed loop recycling

## Provide leading solutions and innovations

Utilize cutting edge sensor technology

Exploit the power of deep learning

Deep market expertise and partnership

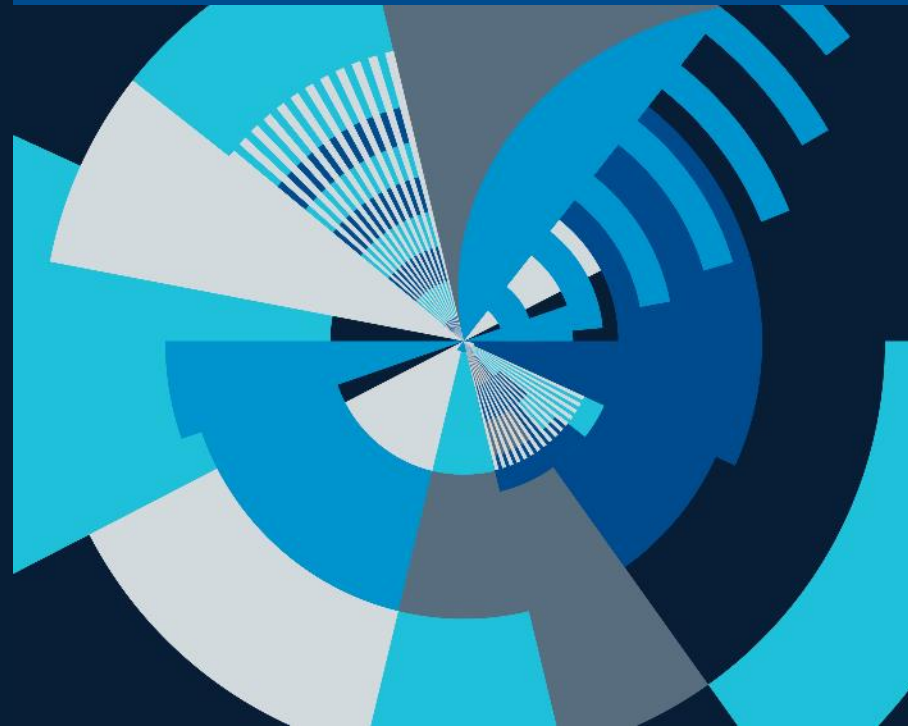
Develop digital solutions & services

## Our commitment towards plastic packaging by 2030

**30%**

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

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





# TOMRA Food



# TOMRA Food

Transforming global food production to maximize food safety and minimize food loss by making sure **Every Resource Counts™**.

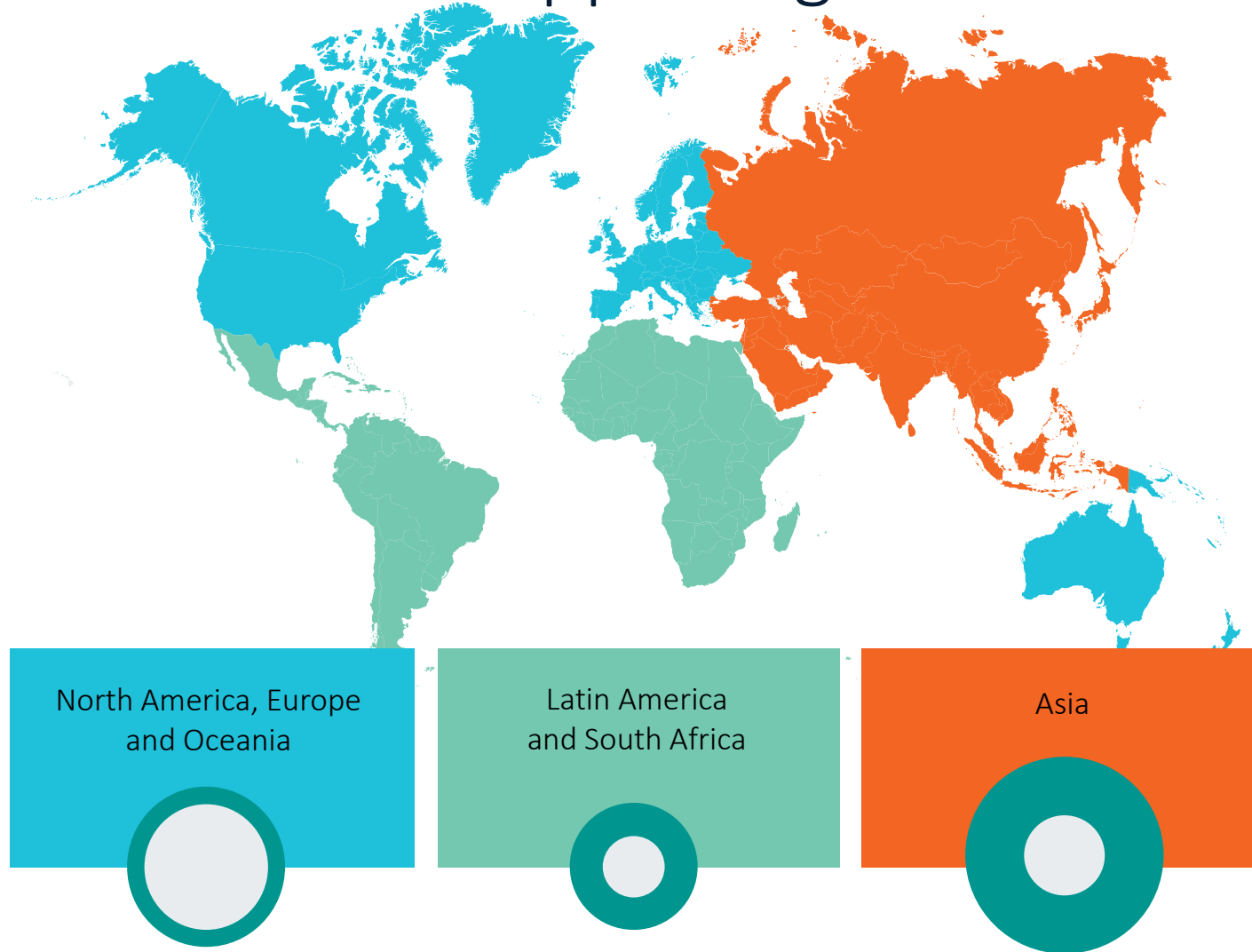


Currently, **33%** of all food produced is either lost or wasted

By 2050, a global population of **9.8 billion** will need **70%** more food than is consumed today

We have ambitions to enable a post-harvest **food loss reduction of 50%** by 2030

# Robust drivers supporting the market



Automation Potential (illustrative)



Potential



Current level



Population growth and rise of the middle class



Continued loss and waste of food



Shift to automation and digital tools



Cyclical investments in different categories, regions and seasons

# TOMRA Food with a strong value proposition

## Why Automate



Food safety



Quality improvement



Yield increase



Reduce labor



Cost savings



Minimize food loss and waste



## Why TOMRA

### Know-how

Expertise to transform the food industry

### Technology

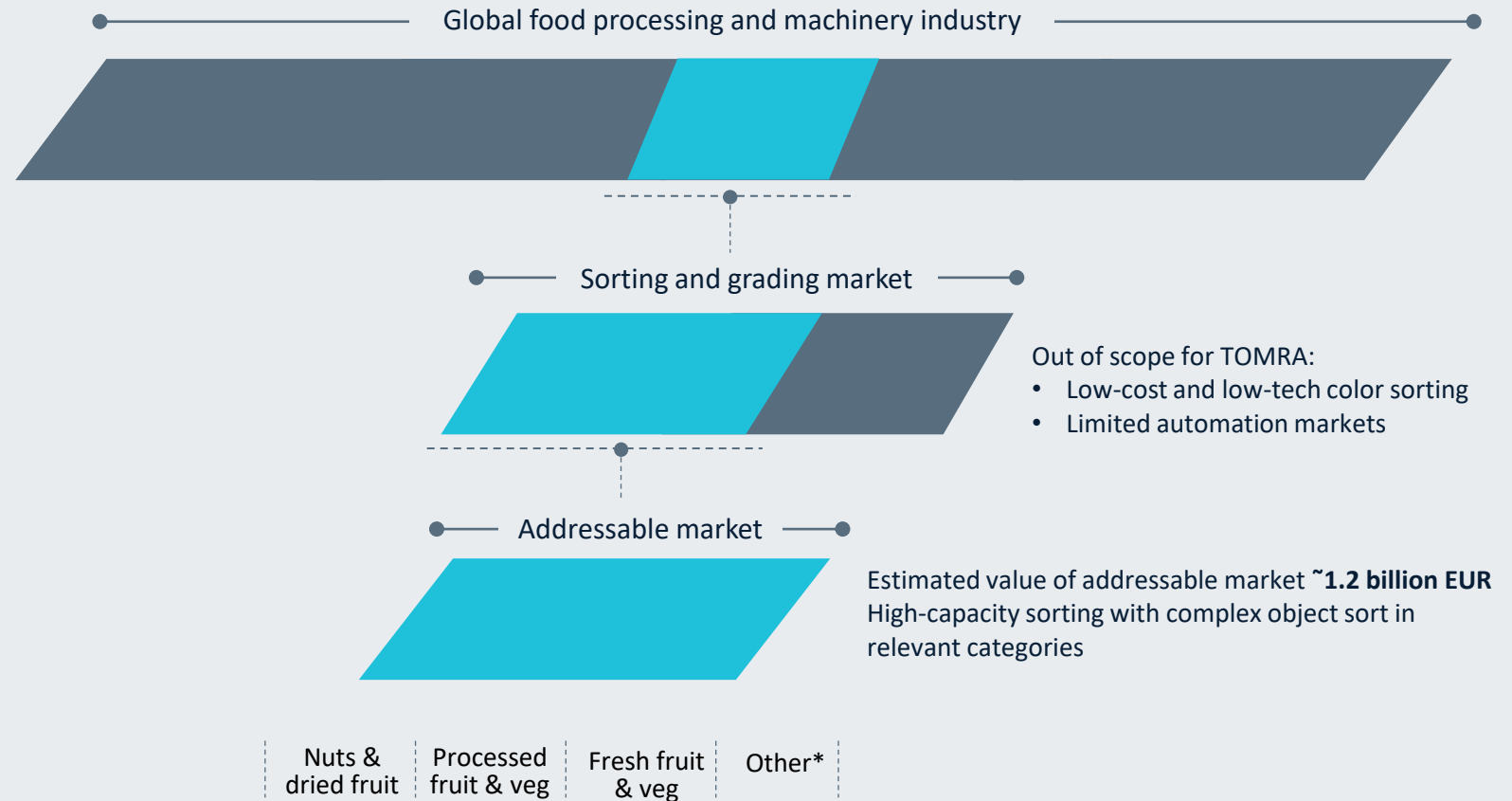
Best-in-class sorting and grading solutions, and digital insight

### Partnerships

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

# Market position and addressable market

We are addressing approximately 60% of the total food sorting and grading market



*\*includes protein, pet food, confectionary, etc.*

# Our Technology...

Camera



Laser



Digital



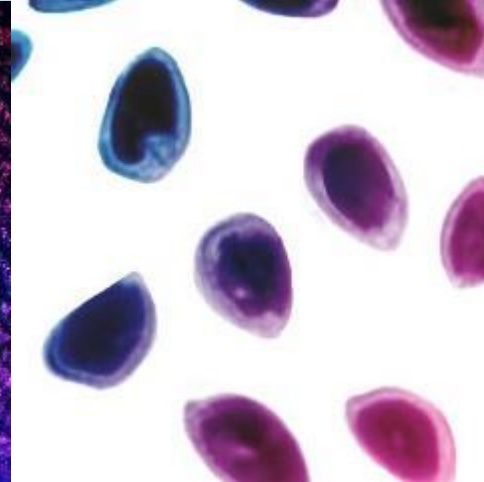
Pulsed LED



Spectroscopy



X-ray



...are detecting a wide range of parameters



### Foreign Material

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



### Blemishes

Objects with spots or other (small) blemishes are removed



### Toxins

Removal of produce contaminated with aflatoxin



### Structure

Removal of soft, molded or rotten food



### Biometric Characteristics

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



### Shape & Size

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



### Color

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



### Defects

Removal of visible and invisible small and substantial defects



### Damage

Broken, split and damaged objects are detected and removed



### Fluo

Based on the chlorophyll level present in produce defects are removed



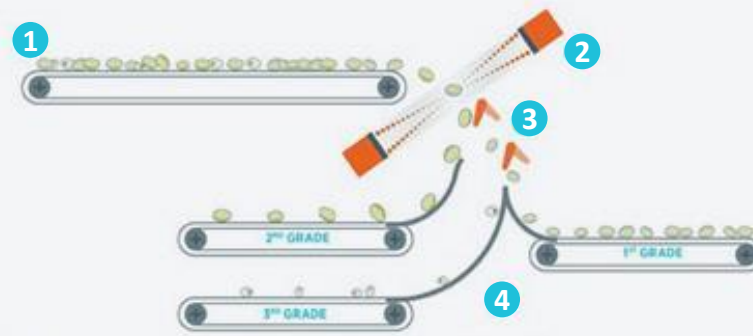
### Density

Detection of density differences

- Visible
- Invisible
- Both

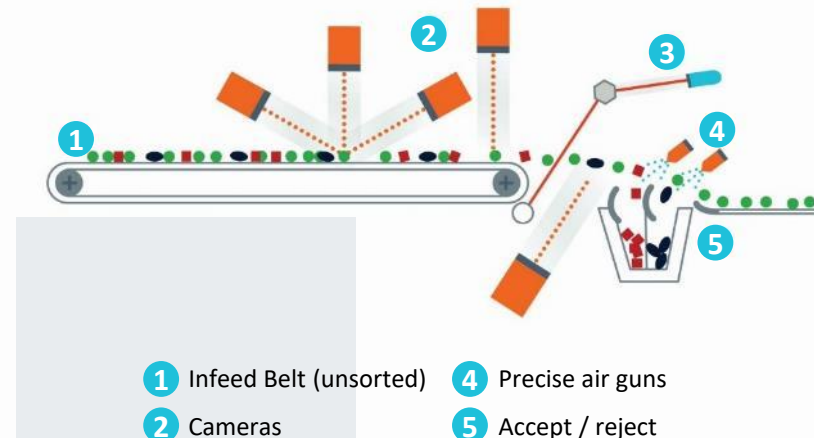
# Working principles in Food sorting

## Air inspection



- 1 Infeed belt (unsorted)
- 2 Full width NIR and Color Vision sensors
- 3 Intelligent finger ejectors
- 4 Accept/reject

## Belt inspection



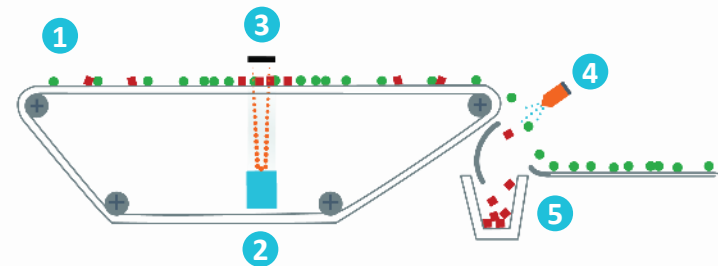
- 1 Infeed Belt (unsorted)
- 2 Cameras
- 3 Lasers
- 4 Precise air guns
- 5 Accept / reject

## Chute or Channel sorter



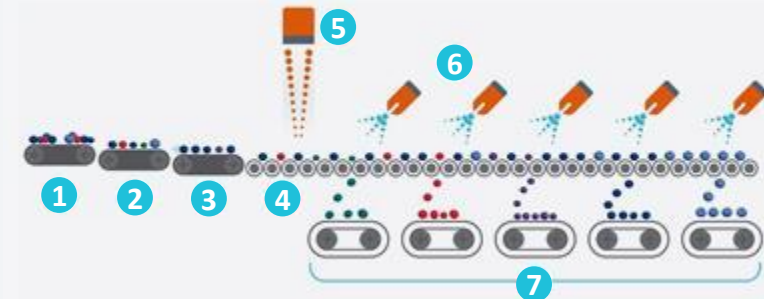
- 1 Infeed (unsorted)
- 2 BSI+
- 3 Laser
- 4 Precise air guns
- 5 Accept / reject

## Xray sorter



- 1 Infeed (unsorted)
- 2 X-ray source
- 3 X-ray detector
- 4 Precise air guns
- 5 Accept / reject

## Singulated grading



- 1 Accumulation conveyor
- 2 Singulation conveyor
- 3 Acceleration conveyor
- 4 Roller rotation units
- 5 Cameras and NIR sensors
- 6 Gentle tipping or air jets
- 7 Specified grade



# Food technology platforms

Solutions for fresh and processed produce

<p>TOMRA A Product Line</p>  <p>TOMRA 3A Series      TOMRA 5A Series</p>		<p>TOMRA B Product Line</p>  <p>TOMRA 5B</p>	<p>TOMRA C Product Line</p>  <p>TOMRA 3C      TOMRA 5C</p>		<p>TOMRA X Product Line</p>  <p>TOMRA 5X</p>	<p>Peeling Lines</p>  <p>Peeling</p>
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Integrated sorting solutions for fresh produce

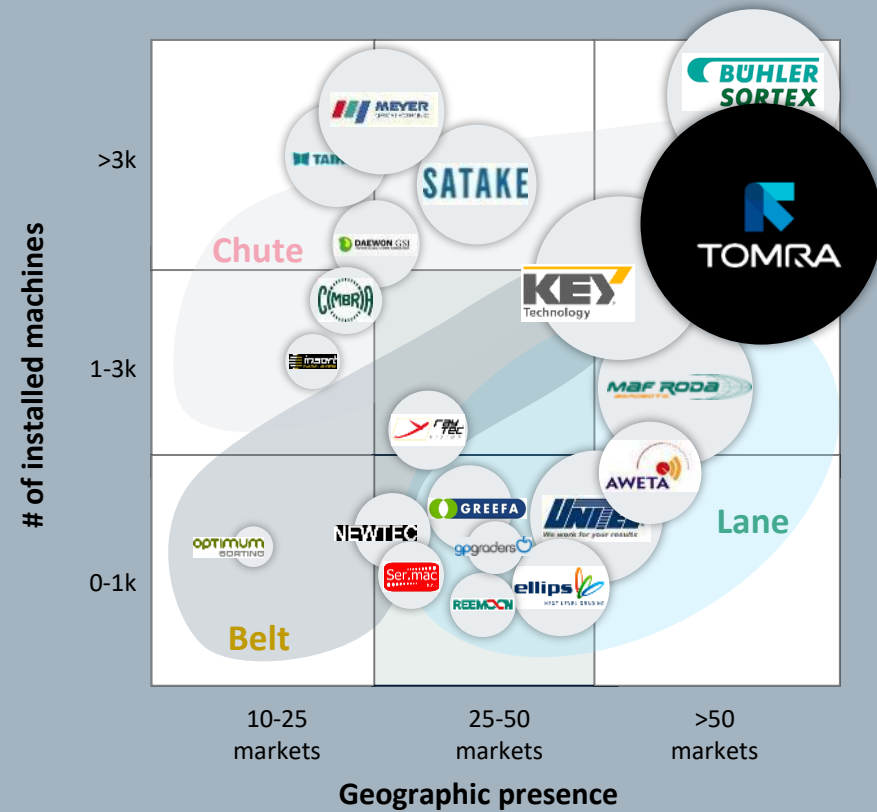
<p>TOMRA S Product line</p>  <p>TOMRA 5S Advanced</p> <p>Single/Dual lane sorter</p>		 <p>ULTRAVIEW</p>	<p>Small Fruit Sorter and KATO260 Line</p>  <p>Small Fruit Sorter      KATO260 with LUCAi</p>		 <p>TOMRA NEON 3</p>
		 <p>SPECTRIM</p>			 <p>CURO16</p>
		 <p>INSPECTRA²</p>			 <p>KETE16</p>

# Leading position globally

## Total Food Sorting and Grading Market

Addressable Food market

TOMRA 2022: ~0.4 EUR billion



# Food Categories



Potatoes



Nuts & Dried Fruit



Vegetables



Apples



Citrus



Berries



Cherries



Fresh Cut



Avocados



Kiwifruit



Grains & Seeds

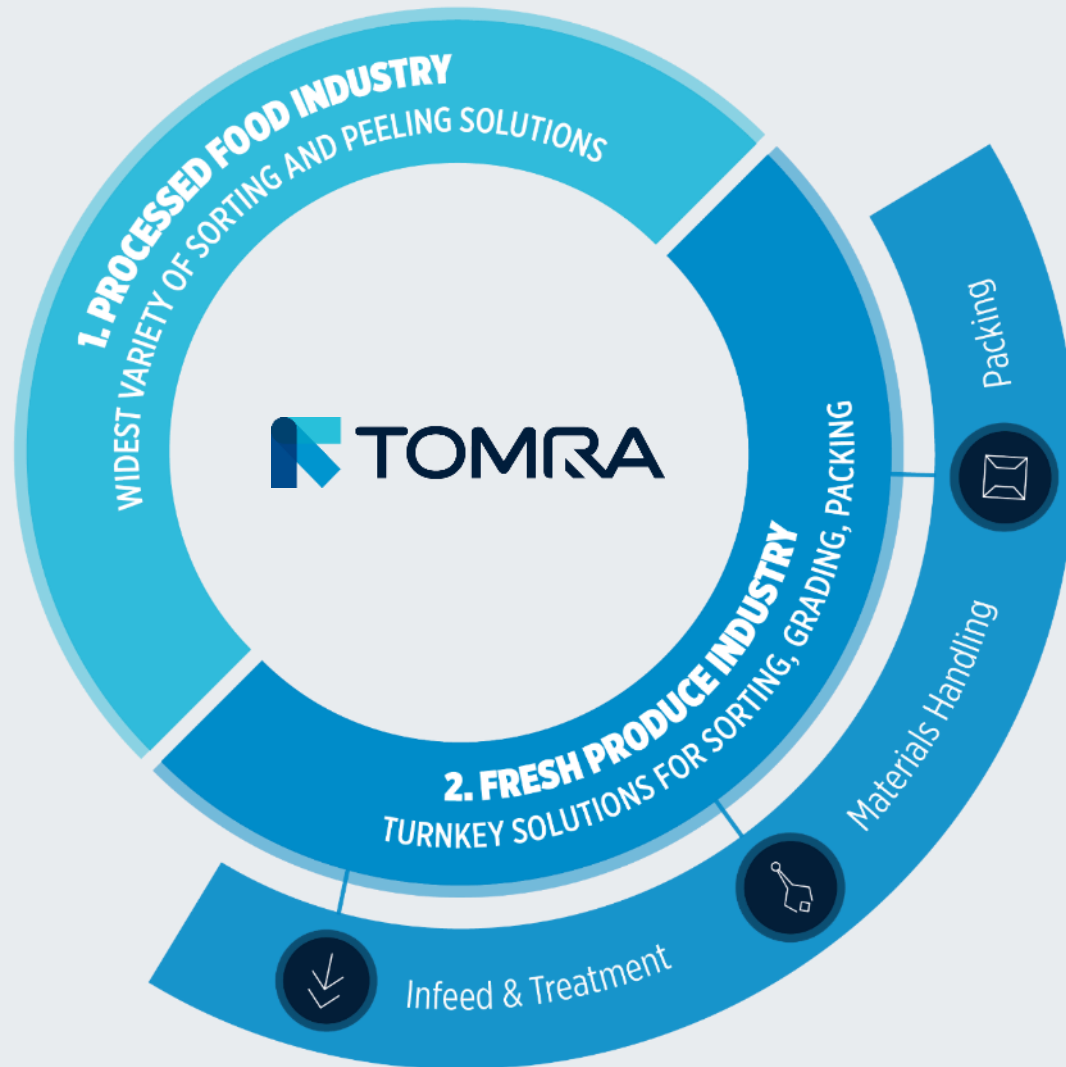
# Leading technology



Sorting &  
Grading



Data &  
Analytics



Artificial  
Intelligence



Service &  
Support

# Some of our customers


## Processed Food



Intersnack

## Fresh Food

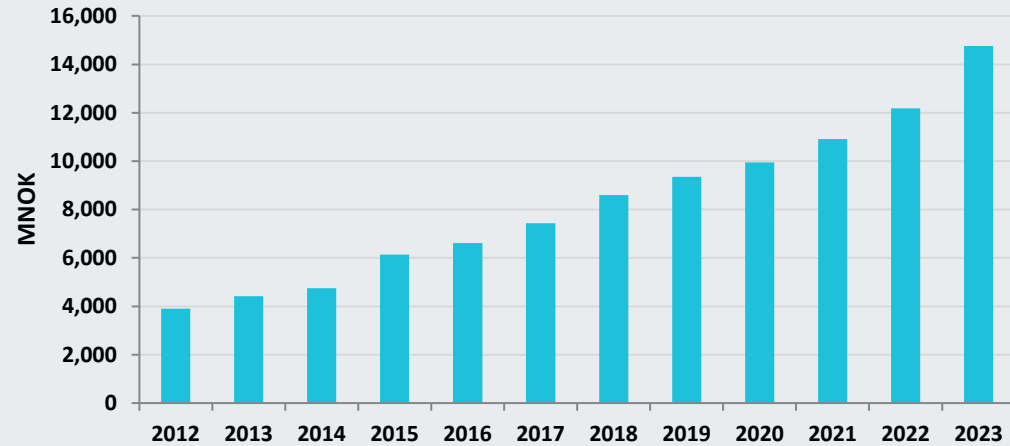




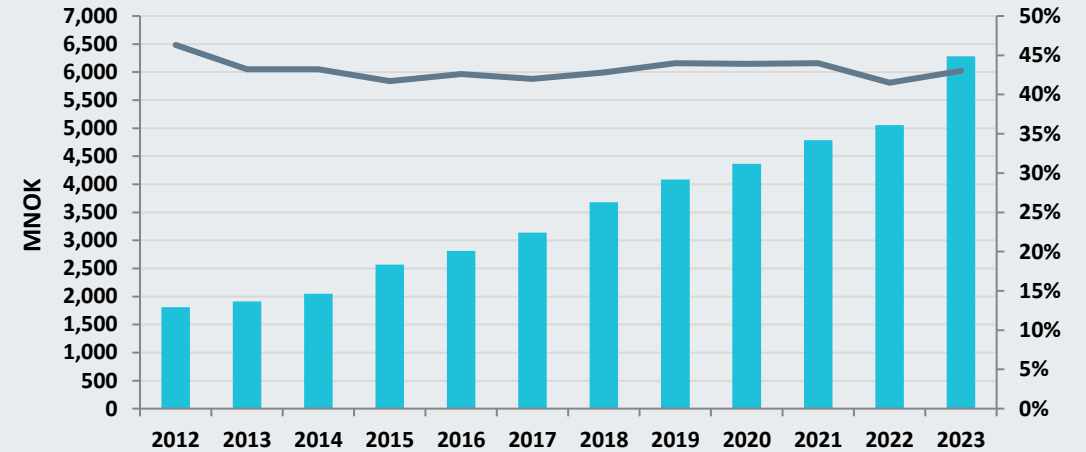
Corporate strategy  
and sustainable  
growth

# Group financials development

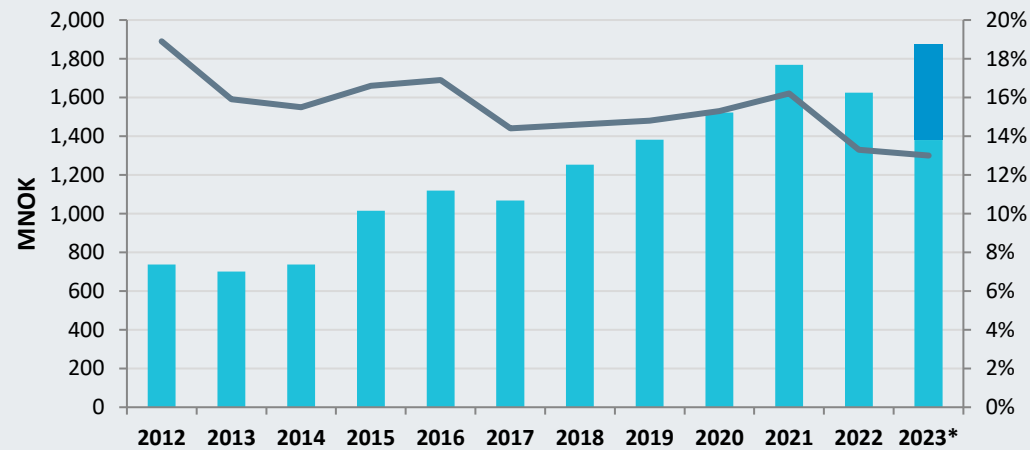
## Revenues



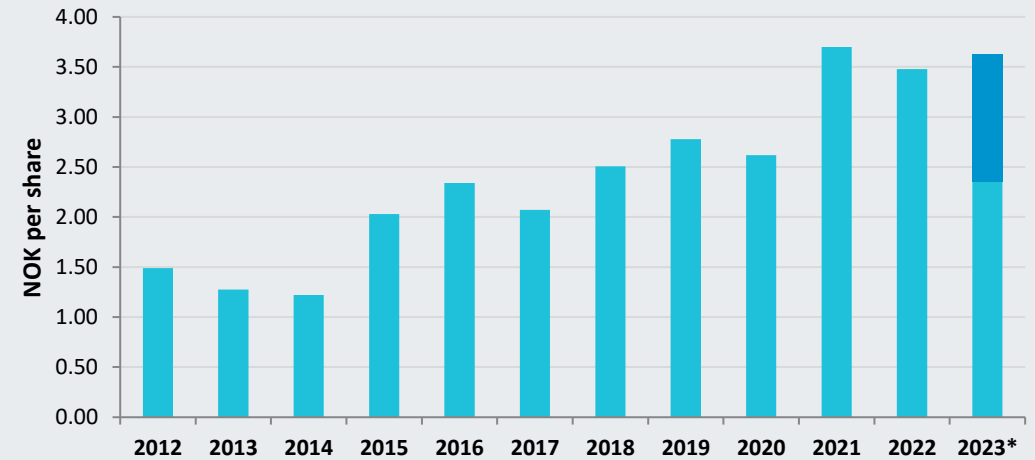
## Gross contribution and margin



## EBITA and margin



## Earnings per share



\* 2023 EBITA, EBITA margin, and EPS is adjusted for one-off costs related to the cyberattack and restructuring costs in FOOD



Our strategy is to  
accelerate growth in core  
business  
and  
develop adjacent  
opportunities



# TOMRA's strategy is to



## Develop adjacent business through TOMRA Horizon

We explore and scale up new adjacent business opportunities and alternative business models that leverage our technology and decades of know-how to

- accelerate growth
- diversify our business
- generate steadily growing revenues
- creating value for customers, shareholders, and society for generations to come



Closing the gap in  
plastic recycling



Close the loop on  
textiles



Systems for  
reusable packaging

# Legislative push to advance circularity

## Recycled content

EU's Packaging & Packaging Waste Regulation  
(proposed by EU Commission in 2022)

% of post-consumer recycled  
content in packaging

	2030	2040
Single use plastic beverage bottles	30%	65%
Contact-sensitive packaging	30%*	50%
Other types of packaging	35%	65%

\* 10% if PET is not major component

## Reuse and refill

EU's Packaging & Packaging Waste Regulation  
(proposed by EU Commission in 2022)

% of reusable  
Take-away packaging

	2030	2040
Cold & hot beverages	20%	80%
Ready prepared food	10%	40%

## National legislation on take-away packaging



**France 1 January 2023:**  
Mandatory reusable tableware for dine-in



**Germany 1 January 2023:**  
Mandatory reusable take-away alternatives



**Sweden 1 January 2024:**  
Mandatory reusable take-away alternatives



**Denmark 1 January 2025:**  
Introduction of EPR packaging fees



**Portugal 1 July 2022:**  
Tax on single use take-away packaging

# The gap in plastics recycling

## 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

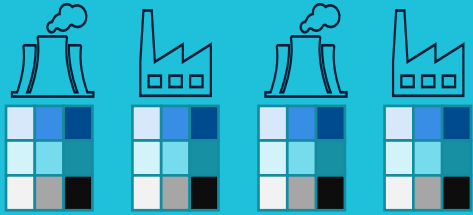
**GAP**

## 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

# Input

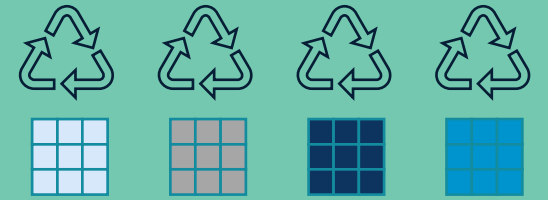


Mixed plastics fraction sourced from material recovery facilities



Advanced sorting  
Dry washing

# Output



High quality polymer fractions to be supplied to recyclers (PE, PE-LD, PP, PS, PET, film)





# TOMRA Feedstock Plants



## Germany

- Announced 19 December 2022
- 100% TOMRA owned
- EUR ~ 50-60 million investment
- Capacity ~ 80.000 tons p.a.
- Input: mixed post-consumer plastic
- Output: >10 different polymer fractions for mechanical and chemical recycling
- Operational in 2024-2025 est.

## Norway

- Announced 31 May 2023
- Joint Venture 65% TOMRA / 35% Plastretur
- EUR ~ 32 million investment
- Capacity ~ 90.000 tons p.a.
- Input: mixed post-consumer plastic
- Output: 8 different polymer fractions for mechanical and chemical recycling
- Operational in the first quarter 2025 est.



In January 2024, we launched the first ever Rotake system in Aarhus



**29**  
machines

  
**20,000**  
cups at launch

Another  
**50,000**  
Being delivered  
in February

Over **40** cafés  
and eateries  
participating

Users pay  
**5DKK**  
deposit which is refunded  
upon return to RVM



TOMRA investing  
**15 million NOK**  
in Aarhus pilot

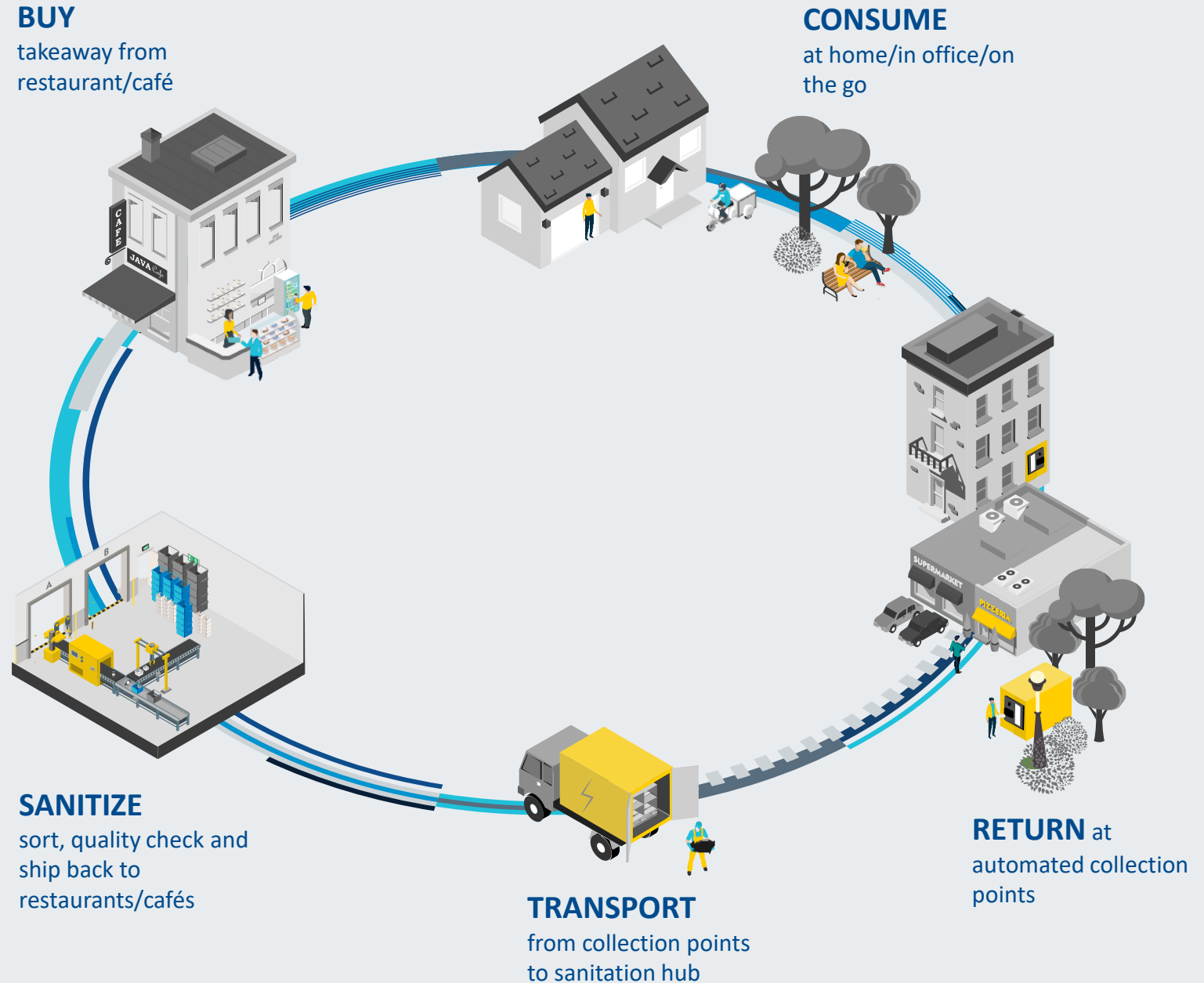
**1.5DKK**  
Circulation fee (on  
par with single use)



**~6**  
Rotations required  
to capture GHG  
savings

# The Rotake system

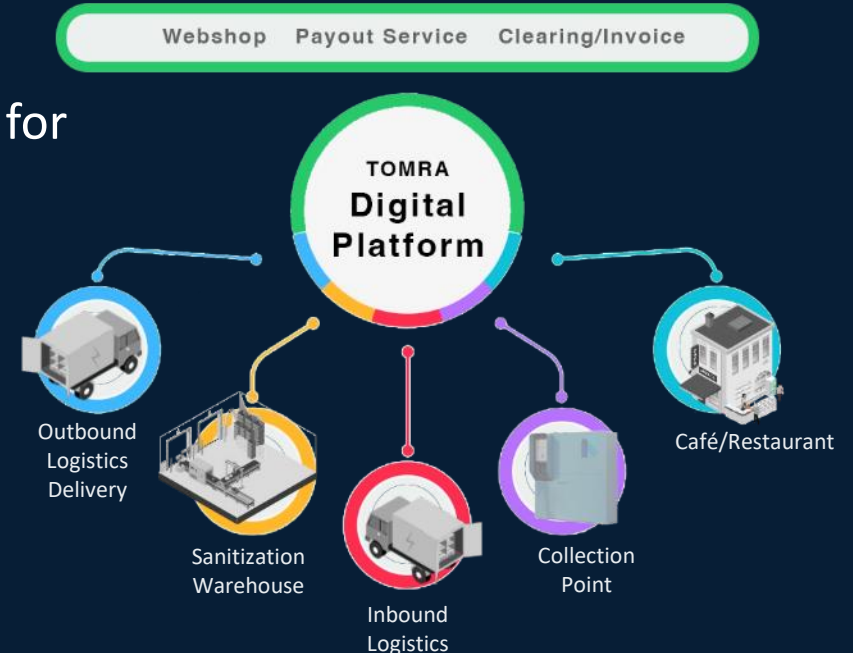
TOMRA Reuse is developing a full circular value chain and an open managed system to enable reusable takeaway packaging with collection technology at the core



# Reuse enabled by technology



Advanced digital backbone for user simplicity



Automated collection points for user convenience, scalability and seamless deposit refunds



# Reuse addresses the growing problem from increased waste and GHG emissions stemming from single-use packaging



In Europe alone, it is consumed up to ~25bn<sup>1</sup> in takeaway containers each year...

**80 million**

Tons of waste annually from packaging<sup>2</sup>

**Up to 50%**

Food and beverage containers in public waste bins in cities<sup>3</sup>



...creating substantial market opportunities for players like TOMRA Reuse...

**~1bn**

Est. annual no. of units of reusable cups / containers<sup>4</sup> in 15 EU cities with population of >1m

**55-75%**

GHG savings from shifting to reusable cups and food containers<sup>5</sup>



...relying on key drivers materializing to ensure system scalability and profitability



Regulatory support through bans / incentives



Convenient design to ensure high adoption and return rates

1. Estimate based on Denmark's Ministry of Environment and Food's report "Markedsanalyse og kortlægning af engangsplastprodukter og deres Alternativer" and study of " Environmental impacts of takeaway food containers" 2. Eurostat (2023) 3. Measured in weight, based on a study from Aarhus Municipality 4. Assuming total population of 30-40 million. 50% adoption rate and 98% return rate. ~50 units consumed / capita (from sources listed in footnote #1). 5. Assessing Climate Impact 2023, Eunomia

TOMRA is uniquely positioned along global megatrends

We have set bold ambitions to double our business in the next five years

- Accelerate growth in core
- Develop adjacent business



# TOMRA

## Our ambitions 2022 – 2027

Revenue  
growth

**15%**  
CAGR

EBITA  
margin

at  
**18%**

Dividend  
payout

**40 – 60%**  
of EPS

Capital  
structure

Investment  
grade

Net Zero

Holistic  
sustainability  
strategy

# Our ambition is to keep an investment grade status



Financial Risk Profile  
**A**

Business Risk Profile  
**BBB+**



# TOMRA Green Bond Framework



## Use of proceeds

### ICMA category: Pollution prevention and control

Expenditures related to:	Examples of eligible assets:
Collection, sorting and processing of beverage containers	<ul style="list-style-type: none"> <li>• Manufacturing, installation, maintenance, and operation of reverse vending machines (RVMs)</li> <li>• Sorting and processing facilities</li> <li>• R&amp;D related to the development and design of RVMs</li> <li>• Collection systems for reusable packaging</li> <li>• Outreach to raise awareness and support for deposit return schemes</li> </ul>
Recovery and upgrading of valuable materials from waste streams for recycling	<ul style="list-style-type: none"> <li>• Software development for waste sorting machines</li> <li>• Assembly lines for manufacturing of sorting machines</li> <li>• R&amp;D to improve performance or enable sorting of new types of materials (e.g., textiles)</li> <li>• Investments in the sorting and processing of post-consumer materials</li> </ul>
Minimizing the carbon footprint of operations	<ul style="list-style-type: none"> <li>• Renewable energy equipment</li> <li>• Clean transportation</li> <li>• R&amp;D to increase the use of sustainable materials</li> </ul>

## Highlights from Cicero Second Party Opinion

“TOMRA’s RVMs and waste sorting machines are **well-aligned with circular economy solutions and a low-carbon future**”

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**”

“RVM solutions have the potential to **limit climate emissions, local pollution, and harmful biodiversity impacts**”

“TOMRA has **significantly strengthened** its sustainability strategies”

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



**Dark Green** is allocated to projects and solutions that correspond to the long-term vision of a low-carbon and climate resilient future.

# Our sustainability commitment

Leading the Resource  
Revolution while  
becoming a fully circular  
business and being safe,  
fair and inclusive

# Our 2030 Sustainability Targets

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 their end of life

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

Attract diverse talents from all 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

Supply Chain Sustainability targets will be announced in 2023





For a sustainable planet for  
generations to come



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