

# Investor Presentation





WE LIVE IN AN AGE  
WITH THE HIGHEST  
LEVEL OF  
CONSUMPTION  
OUR PLANET HAS  
EVER SEEN,



USING MORE  
RESOURCES THAN  
EVER BEFORE.  
MORE THAN OUR  
PLANET CAN  
CONTINUE TO  
SUSTAIN

# TOMRA is well-positioned towards megatrends

## 1 Pioneer in sensor-based and digital technologies



## 2 Leading market position – fit for growth

Collection Solutions  
**#1**

Food Sorting  
**#1**

Recycling Sorting  
**#1**

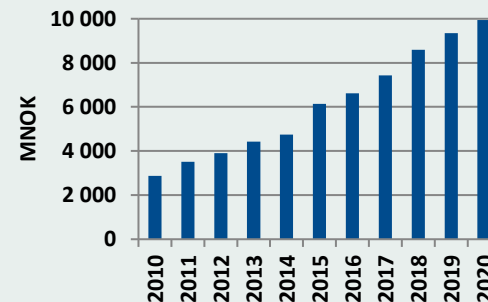
Mining Sorting  
**#1**

## 3 Solutions for optimal resource productivity



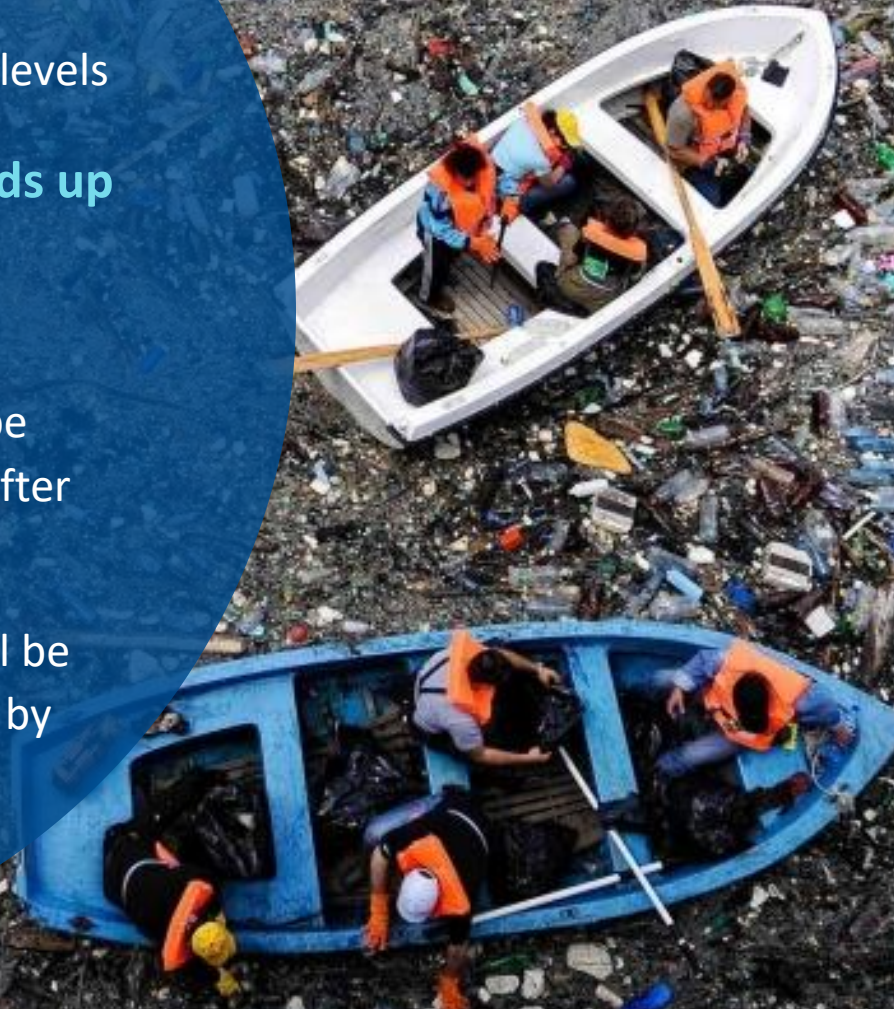
## 4 Strong financial performance, people & culture

Revenues

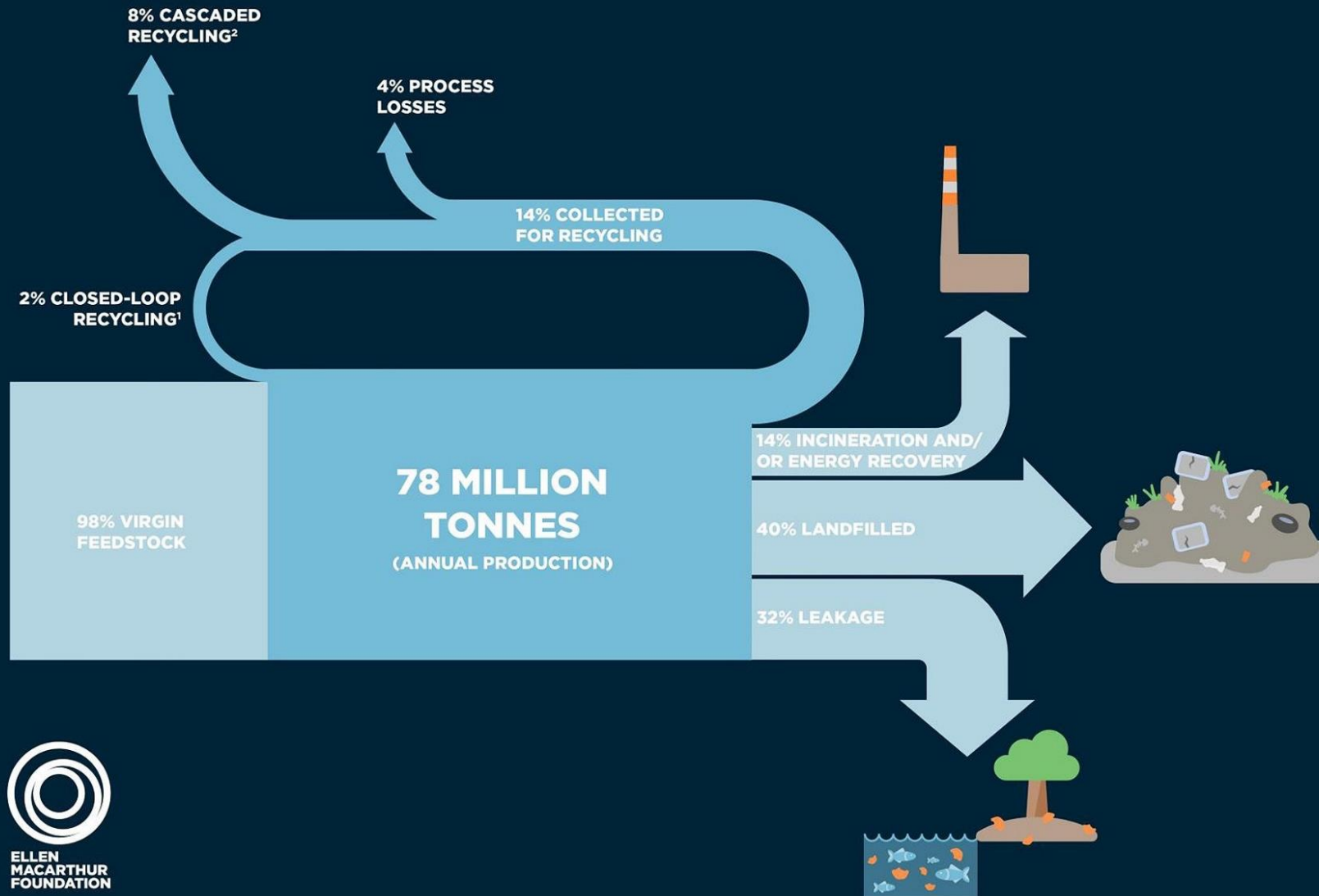


# DID YOU KNOW?

- By 2025 solid waste generation will **increase by 70%** compared to 2010 levels
- **32%** of all plastic packaging made **ends up in nature** every year
- **20%** of plastic packaging could be **profitably re-used** and **50%** could be **profitably recycled** if designed for after use systems
- Continuing current practices there will be **more plastic than fish** in the ocean by 2050



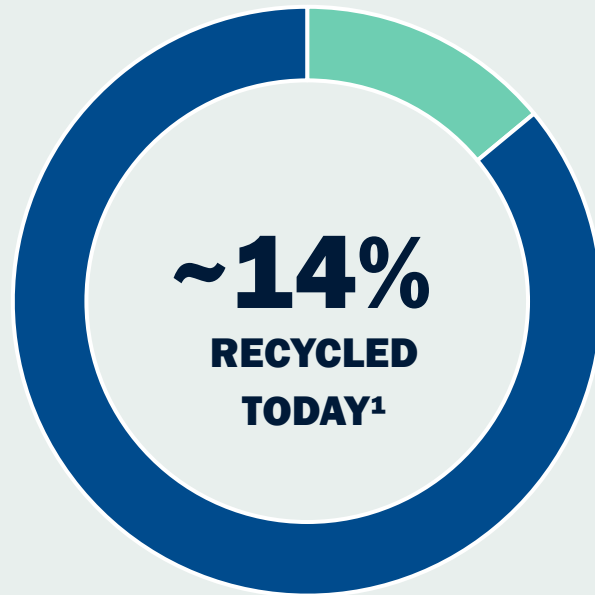
Only 2% of the planet's annual plastic packaging production is reused for the same/similar products



**OUR AMBITION:**  
40% Collected for Recycling  
30% Closed Loop Recycling

# Significant untapped potential in reusing materials

## PLASTIC PACKAGING



**VALUE  
PROPOSITION\***  
**\$ 50–80 BN**

Total volume of plastic packaging is 78 mln tonne annually whereof ~14% is currently recycled, meaning ~67 mln tonne lost. With a volume yield of 72% and a weighted average price of 1,100–1,600 USD/t, the total value proposition is in the range of USD 50-80 bn. Please note that this is a conservative estimate based on a narrow definition of total annual plastic packaging volume. Applying a wider definition can increase the value proposition up to USD 170-190 bn.

## STEEL



**VALUE  
PROPOSITION\***  
**\$ 70–150 BN**

Worldwide steel production is currently about 1,600 mln tonne annually. 70-90% recycling means ~1,100-1,450 mln tonne recycled and 160-480 mln tonne lost. Assuming ~90% yield in process with market price of ~500 USD/t equals USD 70-220 bn, so conservative range USD 70-150 bn

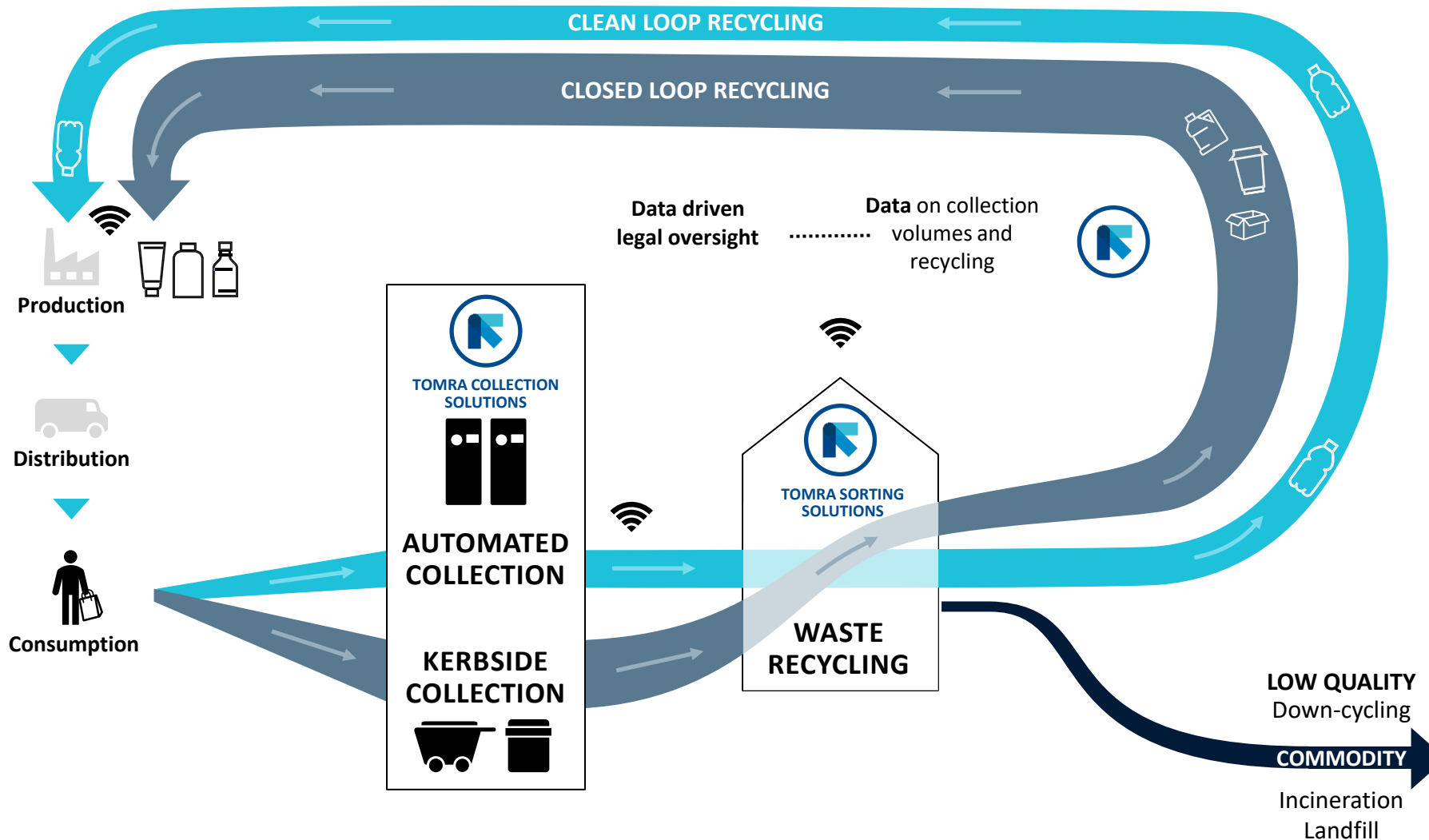
## PAPER



**VALUE  
PROPOSITION\***  
**\$ 30–40 BN**

~80 % of produced paper is potentially recyclable, ~400 mln tonne annually x 80% = 320 mln t/a potentially recyclable paper in the market. Today, ~58 % or 230 mln t/a are recycled, means 90 mln tonnes are lost. If this is recovered and goes into the paper recycling process there will be between 10-30% fiber loss, assuming on average 20%. The value of newsprint paper is ~400-600 USD/t, let's assume 500 USD/t = ~90 mln t/a x 80% x 500 USD/t = USD36 bn

# Circular economy – redefining value creation



## Business case for plastics

### Value increase

**2.5-7x**

€1400 per ton  
Clear PP/PE

€1000 per ton  
Clear PET

€500 per ton  
Mixed PET

€200 per ton  
Mixed Plastic

# DID YOU KNOW?

- By 2050, a global population of **9.8 billion** will **require 70%** more food than is consumed today
- We are currently **wasting 33%** of global food production
- The food industry accounts for around **10%** of global GDP
- Agriculture accounts for **20%** of global greenhouse gas emissions



# New ways of feeding a fast-growing DEMANDING population...

To ensure an efficient food production there is an increased need to...

## ...AUTOMATE...CONTROL...AND INNOVATE



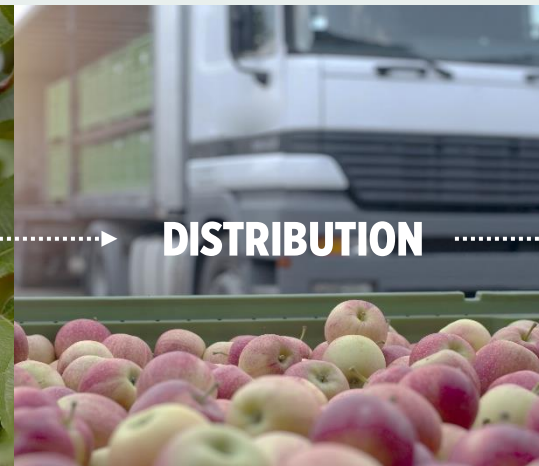
**PROTECTING  
BRAND VALUE,  
ENHANCING FOOD  
QUALITY & SAFETY**



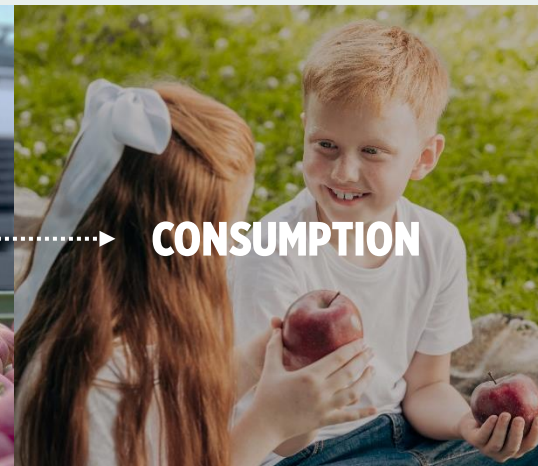
**...THROUGHOUT THE  
VALUE CHAIN**



**PRODUCTION**

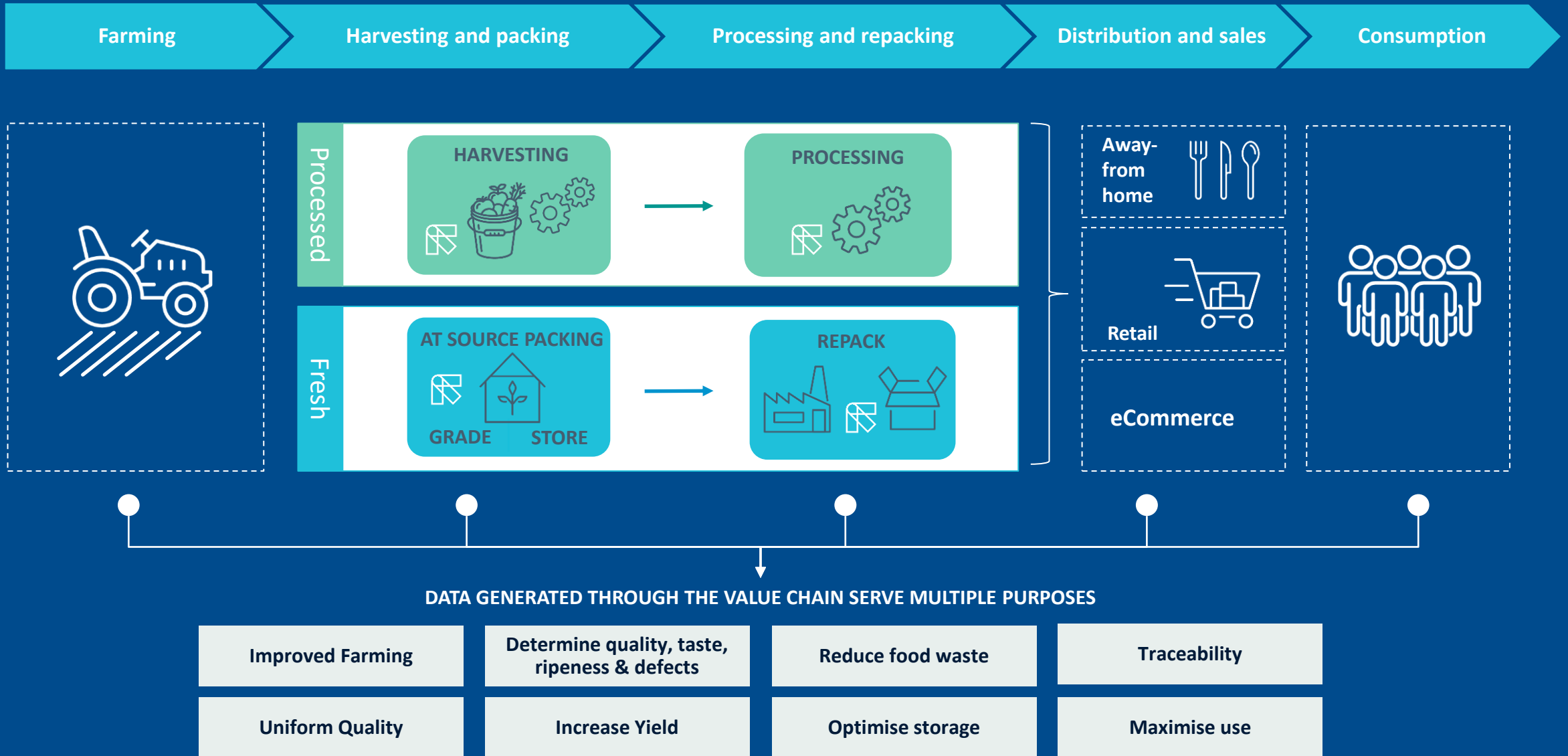


**DISTRIBUTION**



**CONSUMPTION**

# TOMRA plays an integral part in the food value chain



# At TOMRA, our company vision is Leading the Resource Revolution

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

# Some of the biggest global challenges are TOMRA's business opportunities

## Message from the CEO

### «Putting clarity into circularity»

**Sustainability has been at the heart of TOMRA's business model for almost five decades.** TOMRA's mission is to create sensor-based solutions for optimal resource productivity so that its products and services contribute to better use of the world's limited resources.

**As a company we are committed to "walking the talk".** That means doing what we can to ensure sustainable business operations and manage relevant social and environmental risks and opportunities along the company value chain.

**TOMRA has a clear vision for building a circular economy** to help industry transition towards circular business models and set clear ambitious targets to increase global recycling rates.



*S. Ranstrand*

Stefan Ranstrand  
President and CEO Tomra Group

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

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

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

**SDG 9:** Technology innovations for resource productivity.

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

**SDG 2:** Food sorting solutions that increase agricultural yield and reduce food loss along production and supply chains.

**SDG 13:** Avoiding carbon emissions from both material production and waste management through collection and sorting solutions for recycling.

**SDG 12 – Sustainable consumption and production** – aims at "doing more and better with less." TOMRA's vision of "leading the resource revolution" and our mission "to create sensor-based solutions for optimal resource productivity," fit squarely within this agenda. All our business units deliver positive impact on several of the SDG 12 sub-targets, including:

Sustainably manage natural resources, reduce food waste and food loss, prevent and reduce waste through recycling and reuse, partnerships and education for sustainable development and lifestyles in harmony with nature.



SDGs 5, 8 and 17 are supporting, cross-cutting goals where we strive to have a positive impact through the way that we work. At TOMRA, we consider delivering on these SDGs as part of our "license to operate."

TOMRA commits to ensure positive sustainability impact both internally and externally

## TOMRA'S SUSTAINABILITY STRATEGY

TOMRA has in 2020 undertaken work to update its sustainability strategy, to prioritize and focus corporate sustainability efforts where they matter most and will have the greatest impact towards both external and internal sustainability outcomes.

A key result of the strategy process has been the formulation of three overarching Group sustainability commitments, to ensure and inspire sustainability in our **solutions, operations, and relationships**.



### Solutions

*TOMRA commits to create lasting environmental and social value through our products and services, driving optimal resource productivity in the sectors that we serve*



### Operations

*TOMRA commits to operate responsibly to minimize any negative sustainability impacts, internalizing social and environmental considerations in the way that we do business*

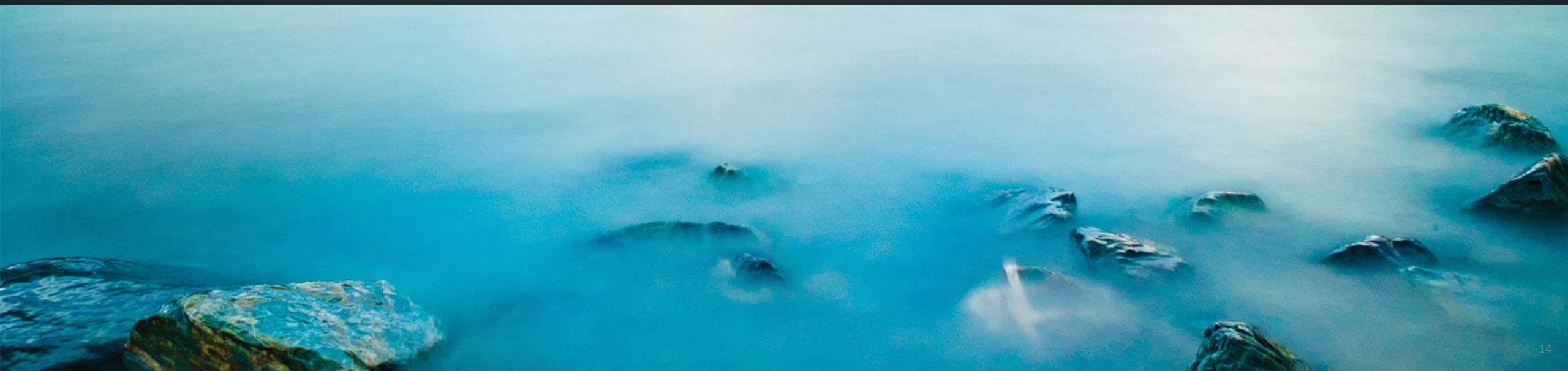


### Relationships

*TOMRA commits to operate with integrity and fairness to be an employer of choice and a trusted business partner, inspiring sustainability in all our relations*



# TOMRA AT A GLANCE



**4300+**

EMPLOYEES  
GLOBALLY

Publicly listed on Oslo Stock Exchange (OSEBX: TOM)



**9.9**

BILLION NOK  
REVENUES IN 2020

**TOMRA COLLECTION SOLUTIONS**

**TOMRA RECYCLING MINING**

**TOMRA FOOD**



**REVERSE VENDING**



**MATERIAL RECOVERY**



**RECYCLING**



**MINING**



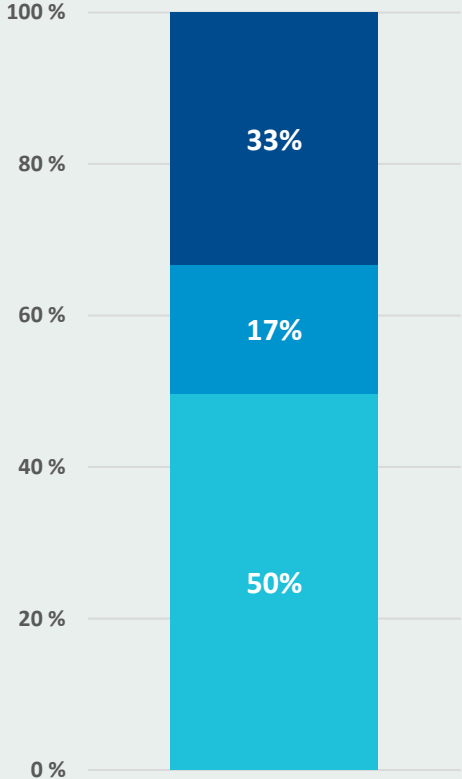
**PROCESSED  
FOOD**



**FRESH  
FOOD**

# Creating value through three strong business areas

**TOMRA**  
2020 Revenue



TOMRA FOOD

- Large sector
- Good margins
- Low cyclical

TOMRA RECYCLING MINING

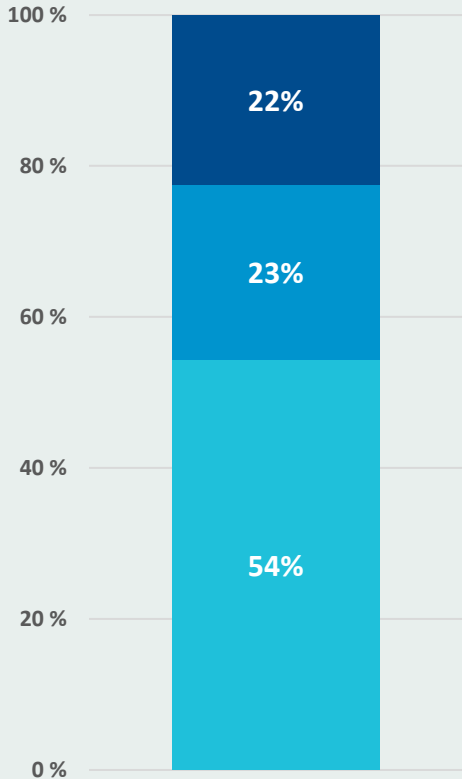
- High growth
- High margins
- Medium cyclical

TOMRA COLLECTION SOLUTIONS

- Stable business
- High margins
- Low cyclical

■ Food ■ Recycling Mining ■ Collection

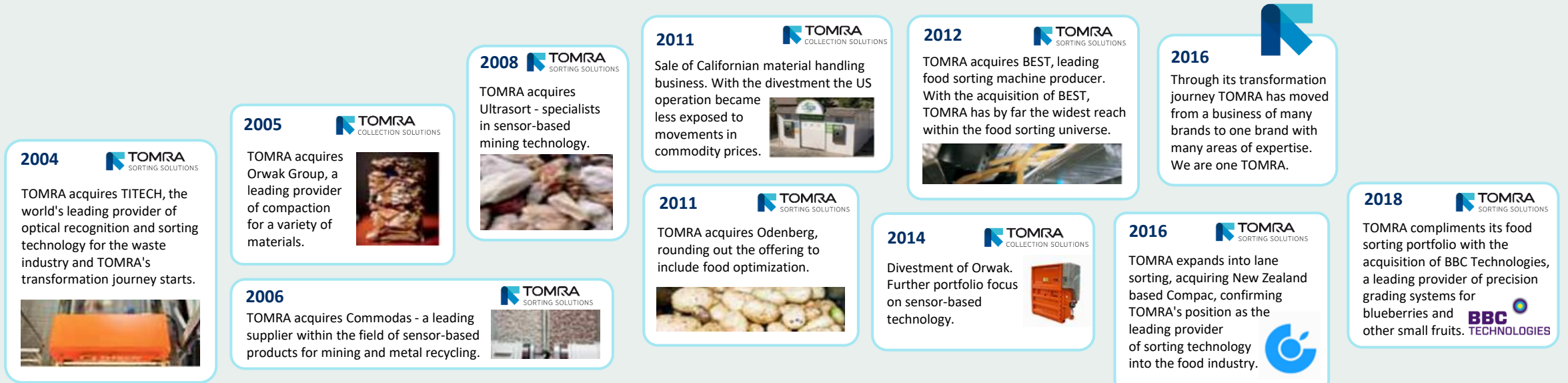
**TOMRA**  
2020 EBITA



■ Food ■ Recycling Mining ■ Collection



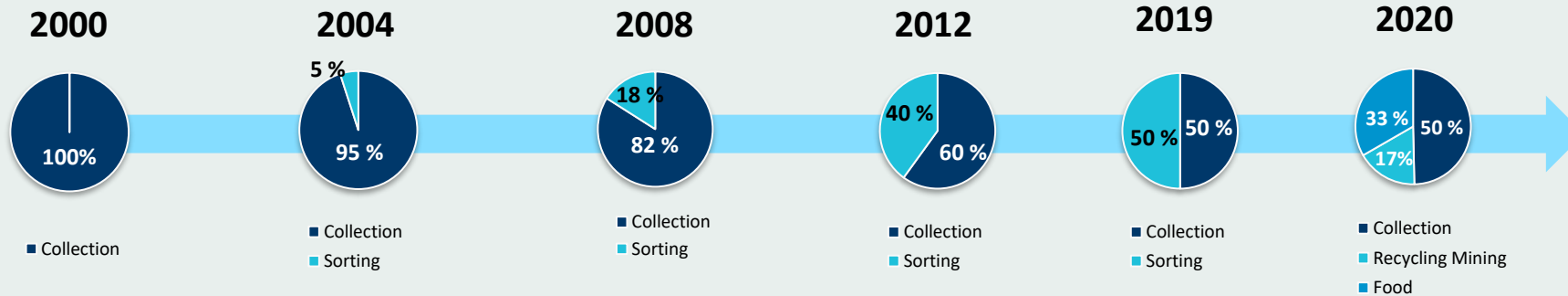
# The TOMRA transformation journey



FROM:



Helping the world recycle



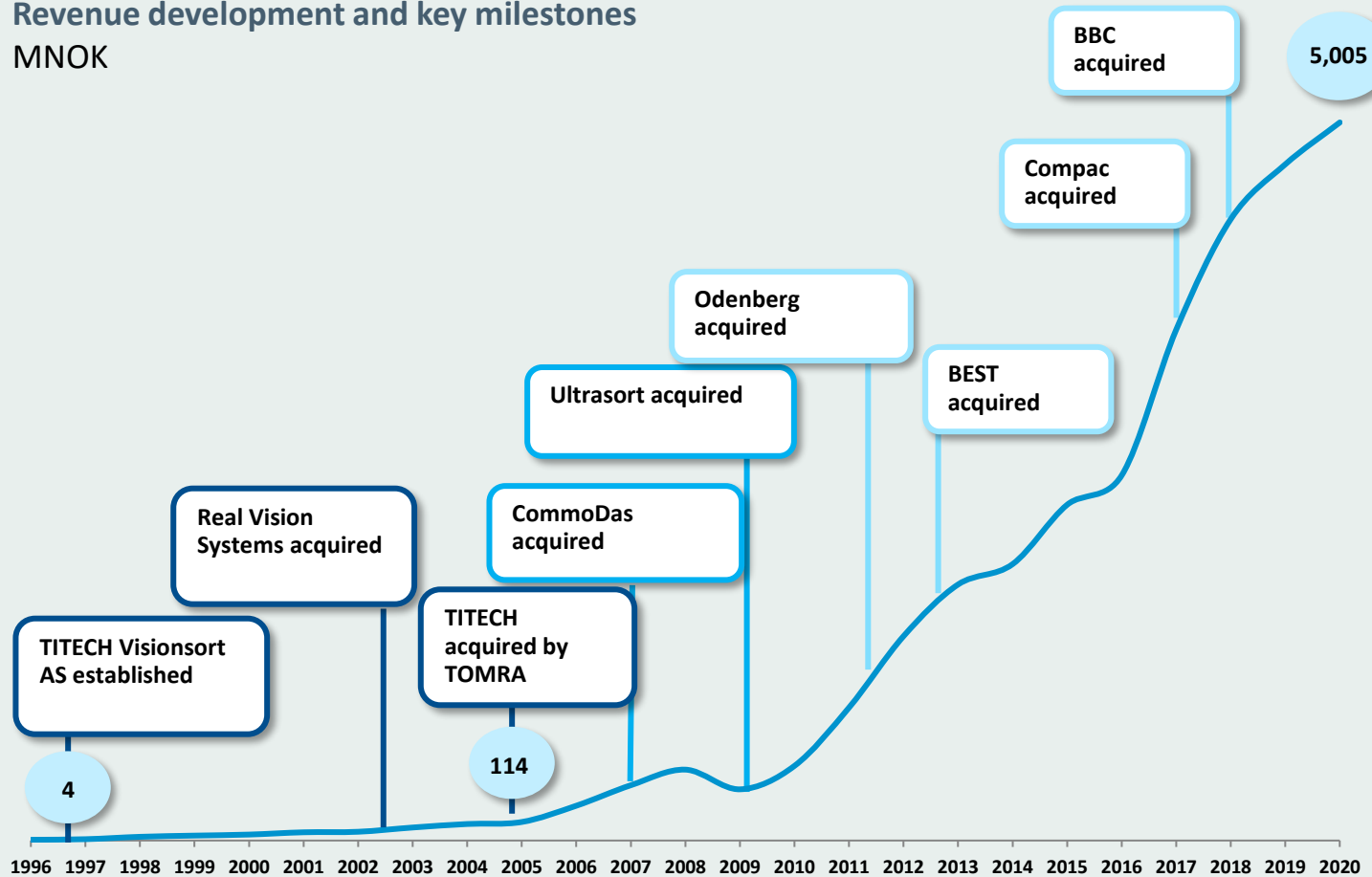
TO:



LEADING THE RESOURCE REVOLUTION

# Strong revenue growth in Recycling, Mining and Food

Revenue development and key milestones  
MNOK



- Total revenue growth (organic plus inorganic) CAGR of ~27% per year from 2004-2020
  - Average annual organic growth for the same period was ~15%
- Technology base and segment/application knowledge expanded both through acquisitions and in-house ventures

# TOMRA's three business areas

	TOMRA COLLECTION SOLUTIONS	TOMRA RECYCLING MINING	TOMRA FOOD
	<b>REVERSE VENDING</b>	<b>RECYCLING</b>	<b>PROCESSED FOOD</b>
Share of '20 sales	~40%	~14%	~19%
Employees	1,705	487	800
Customers	Grocery retailers	Material recovery plants, scrap dealers, metal shredder operators	Food growers, packers and processors
Market share	Over 70%	~55-60%	~30%
	<b>MATERIAL RECOVERY</b>	<b>MINING</b>	<b>FRESH FOOD</b>
Share of '20 sales	~10%	~3%	~14%
Employees	599	78	611
Customers	Grocery retailers and beverage manufacturers	Mining companies	Food growers, packers and processors
Market share	~60% in USA (markets served)	~40-50%	~25%
	<b>TOMRA GROUP FUNCTIONS</b>		
Employees	27		

# Installed base worldwide

## TOMRA COLLECTION SOLUTIONS



### REVERSE VENDING

Nordic	~15,200
Germany	~29,500
Other Europe	~13,500
North America	~14,000
Rest of the world	~5,800

**TOTAL\***) ~78,000

## TOMRA RECYCLING MINING AND FOOD



### RECYCLING

EMEA	~5,300
Americas	~1,100
APAC	~1,020

### MINING

EMEA	~31
Americas	~46
South Africa	~50
APAC/Other	~50

### PROCESSED FOOD

EMEA	~3,671
Americas	~3,144
APAC	~893

### FRESH FOOD

EMEA	~1,699
Americas	~1,413
APAC	~1,051

**TOTAL** ~7,420

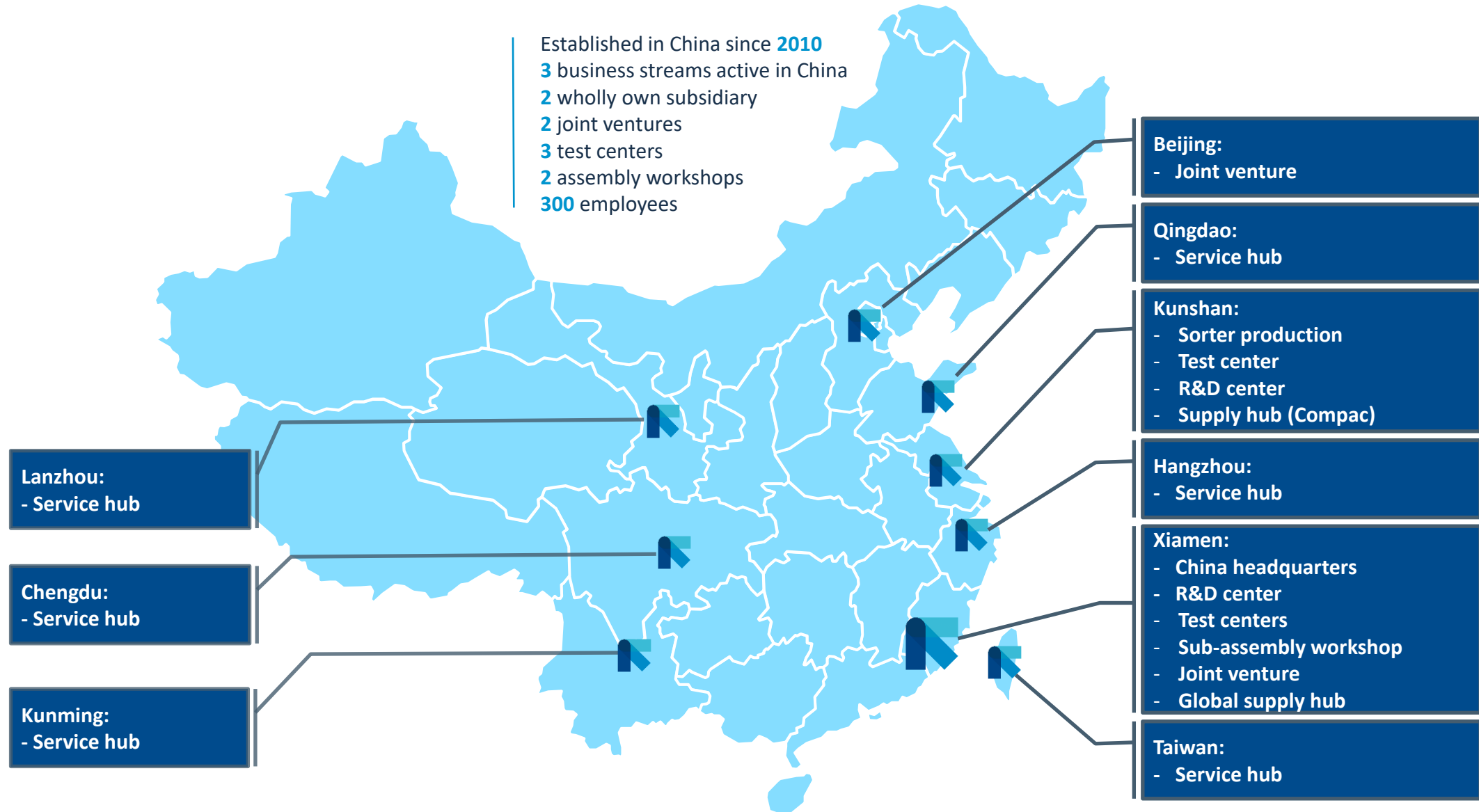
**TOTAL** ~177

**TOTAL** ~7,708

**TOTAL** ~4,163

*\*) Methodology change for 2020. Comparable figures for 2019 are ~77 500 RVM total, of which 15 100 Nordic, 29 300 Germany, 13 200 Other Europe, 14 200 North America and 5 700 in rest of the world.*

# Strengthened presence in China





# TOMRA COLLECTION SOLUTIONS

# DID YOU KNOW?

- 1 million plastic bottles are bought around the world every minute
- Less than half of all purchased plastic bottles are collected for recycling
- More than 40bn beverage containers are captured by TOMRA every year...
- ...representing only less than 3% of all beverage containers sold in 2018



# But the tides are shifting. There is a desire for change



**Consumer** demand for responsible plastic use options



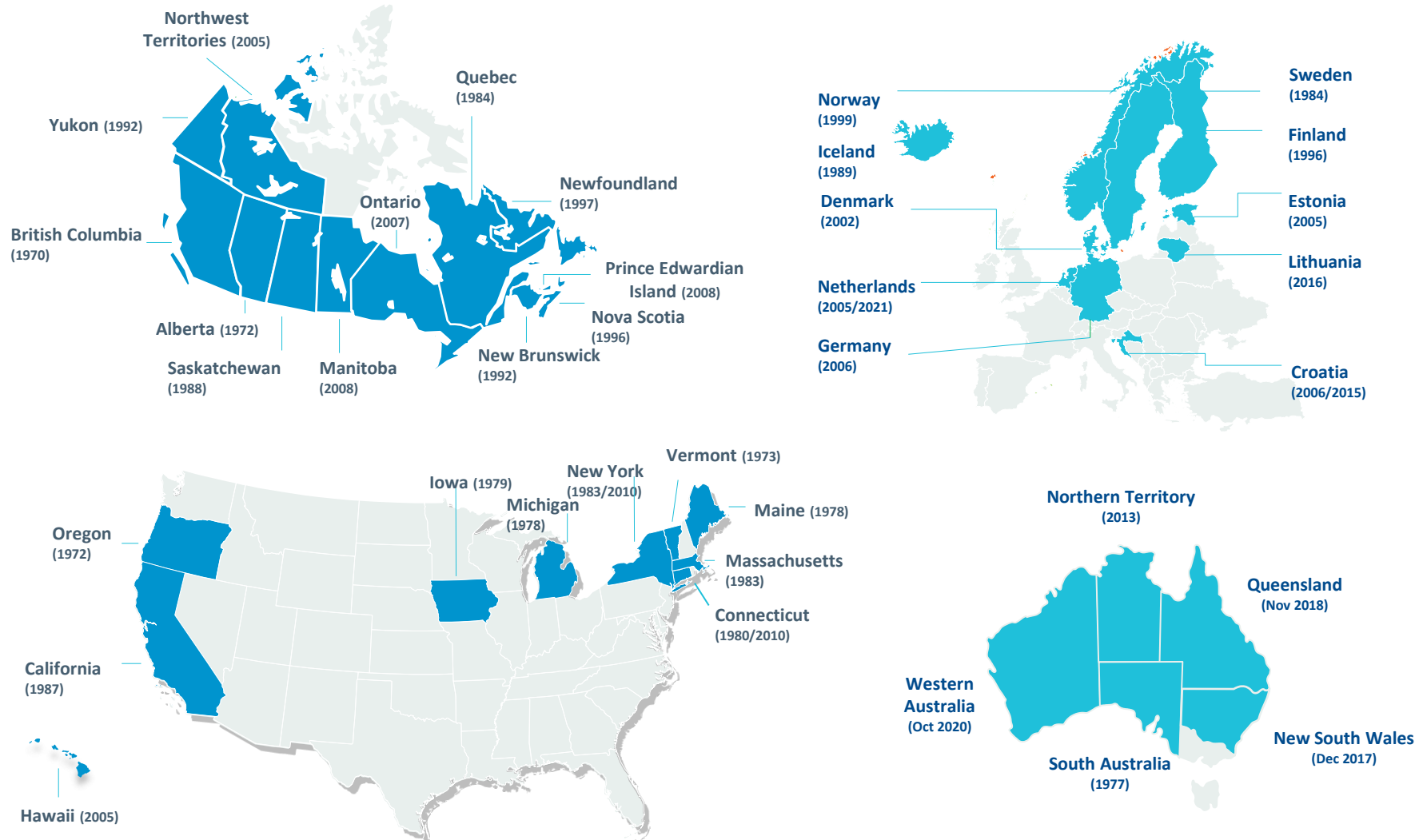
**Legislative** push for new plastic waste strategies



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



# An overview of current deposit markets\*



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

# Upcoming deposit markets on the move

## **North America:**

Possible expansion of existing deposit systems

## **Scotland:**

Container deposit scheme planned to start July 2022

## **Latvia:**

Deposit Return System to be implemented February 2022

## **Slovakia:**

Deposit Return System to be implemented January 2022

## **England:**

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

## **Australia:**

NSW introduced deposit from December 2017  
QLD introduced deposit from November 2018  
WA introduced deposit from October 2020

## **Victoria:**

Deposit Return System to be implemented in 2023

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

- 77% by 2025
- 90% by 2029

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

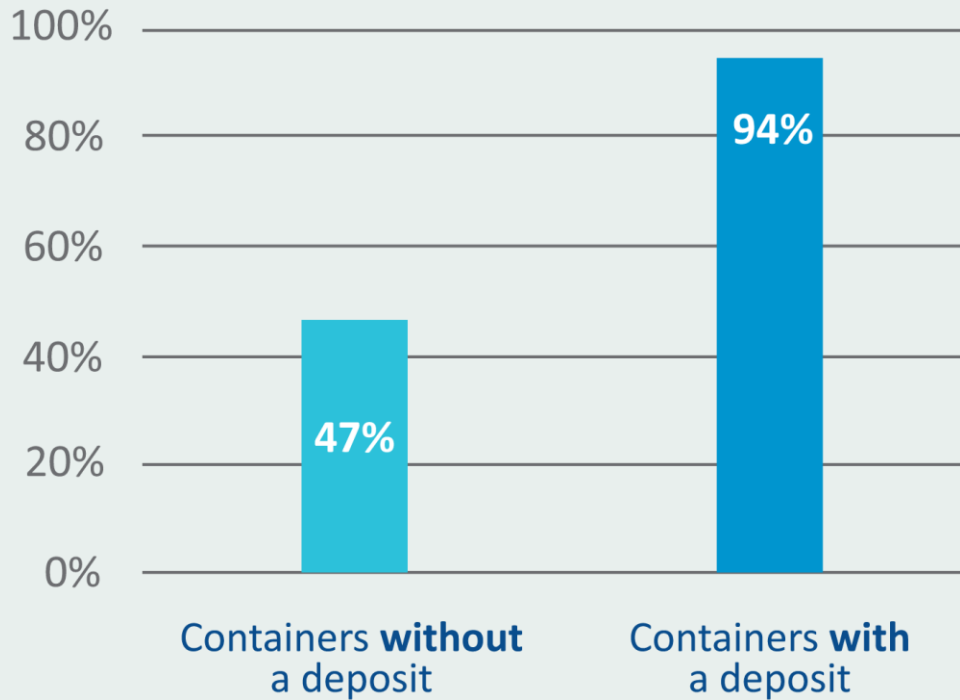
- 25% by 2025 in PET bottles
- 30% by 2030 in all plastic bottles

## **EU Single-Use Plastic Directive:**

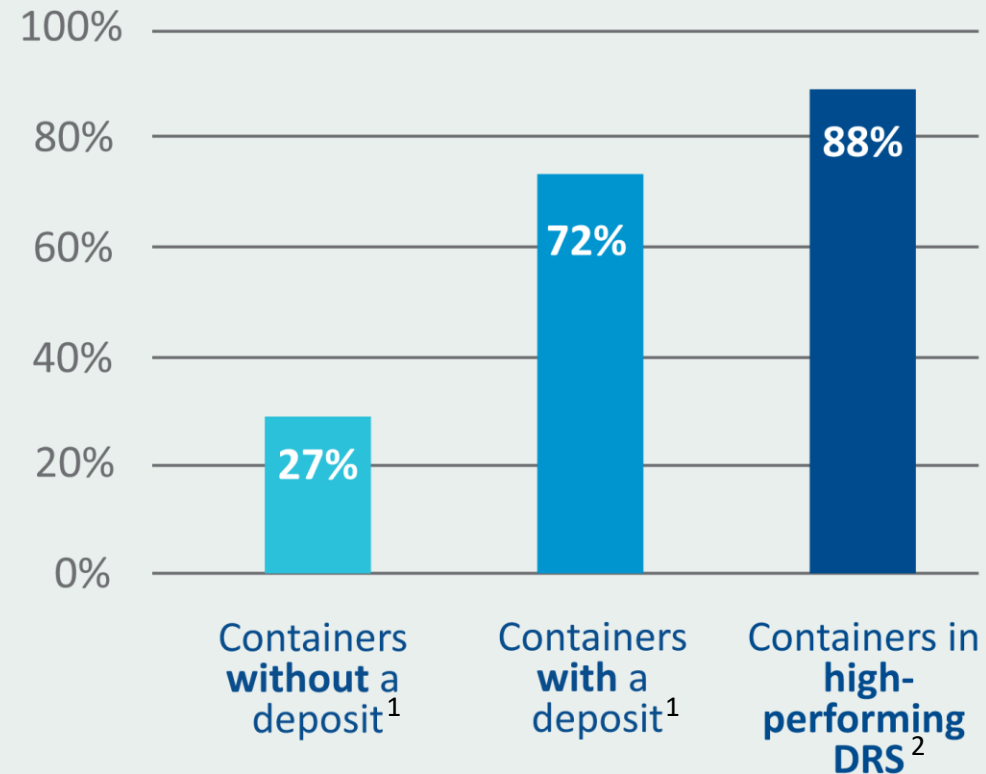
Targets on recycled content and collection target for plastic bottles. Deposit scheme mentioned as a mean to reach those targets.

# Deposit return systems are extremely effective at capturing items for recycling

PET Plastic Beverage Container Collection for Recycling Rates – **Europe** Average



Beverage Container Collection for Recycling Rates – **USA** Average



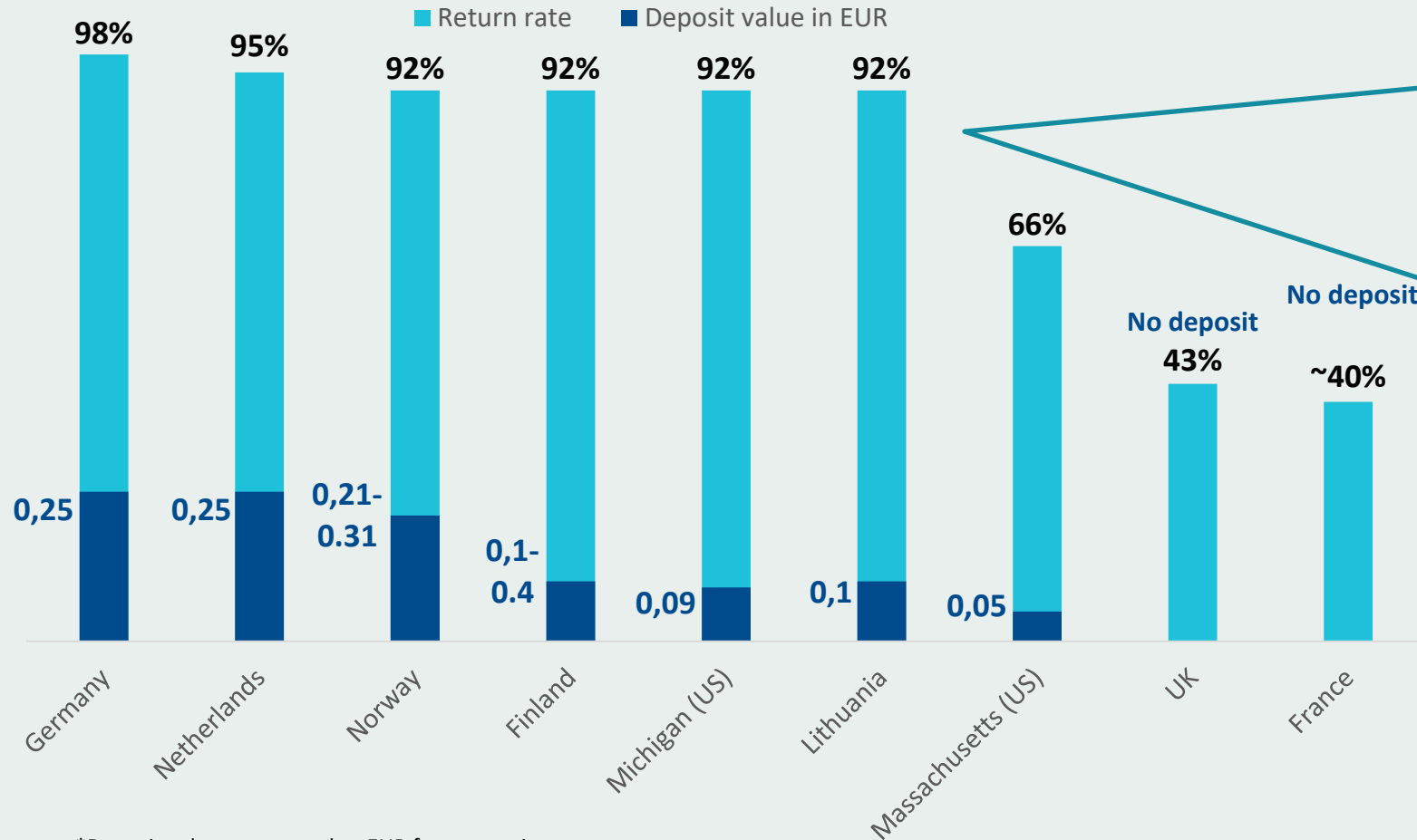
Compiled from deposit System Operators and “PET Market in Europe: State of Play,” Eunomia. 2020. Data available upon request.

<sup>1</sup> Aluminum, Glass, Plastic.. “Beverage Market Data Analysis 2017,” Container Recycling Institute. 2020.

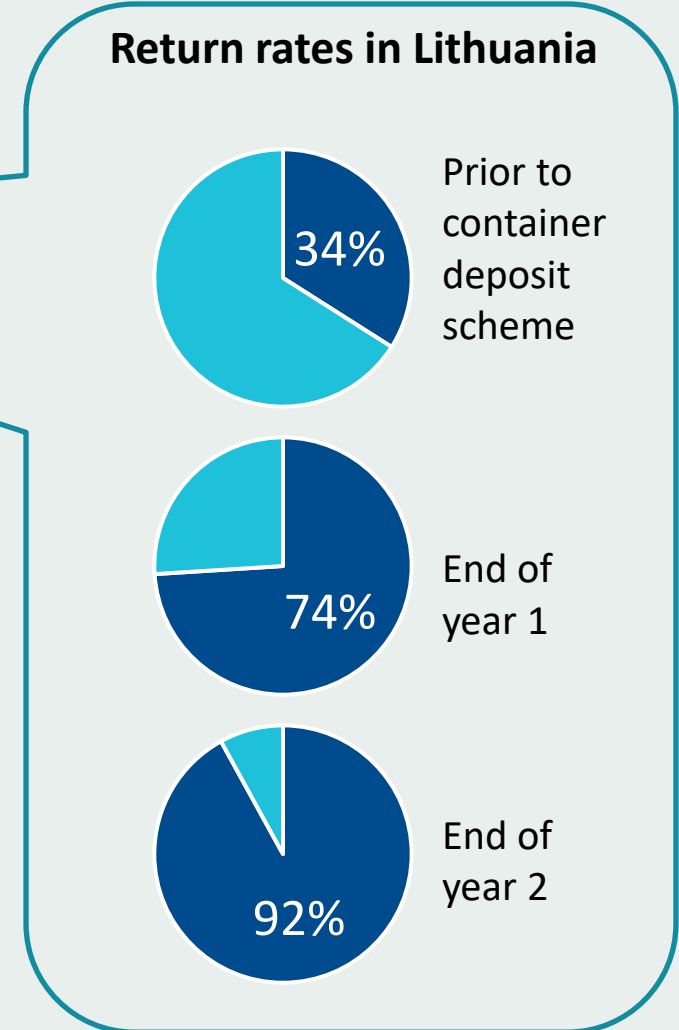
<sup>2</sup> Michigan and Oregon. Bottlebill.org. 2021

# High collection rates achieved in two years' time

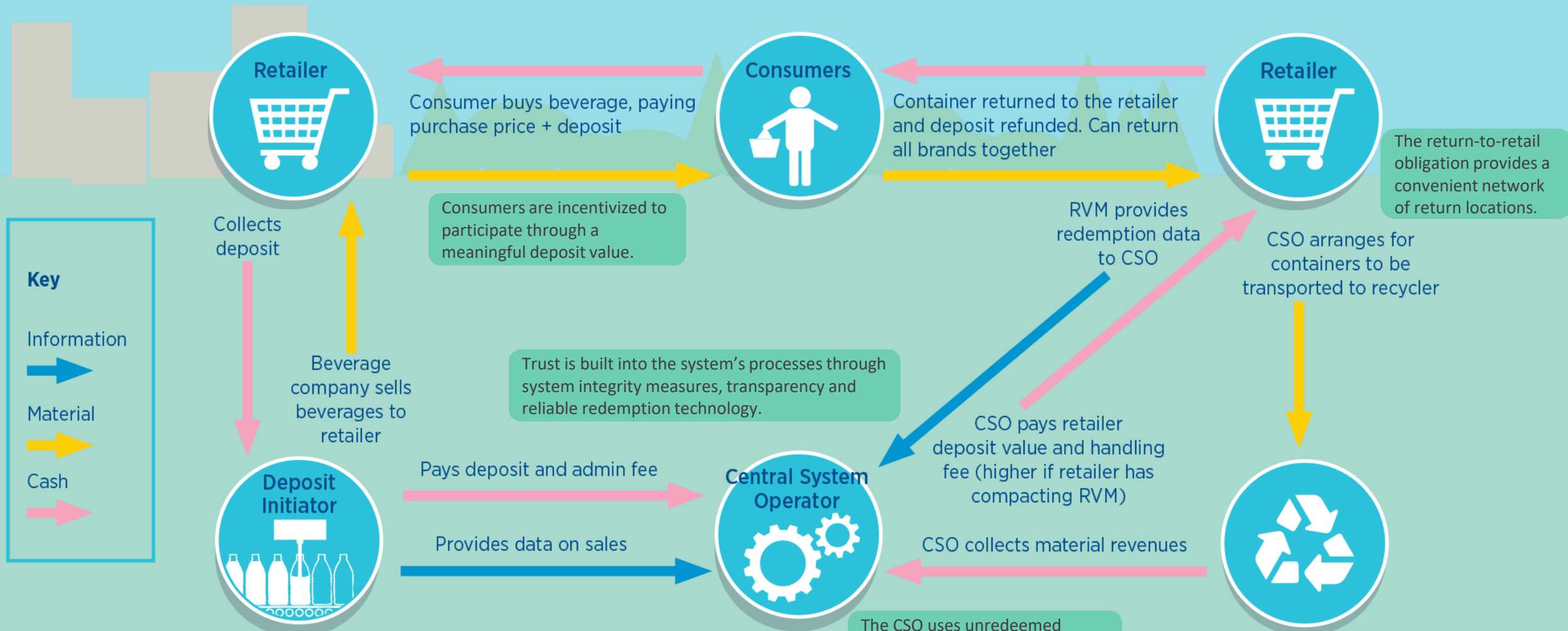
- Return rate and deposit value\* for various container deposit schemes



\*Deposit values converted to EUR for comparison purpose



# The centralized DRS model: How it works

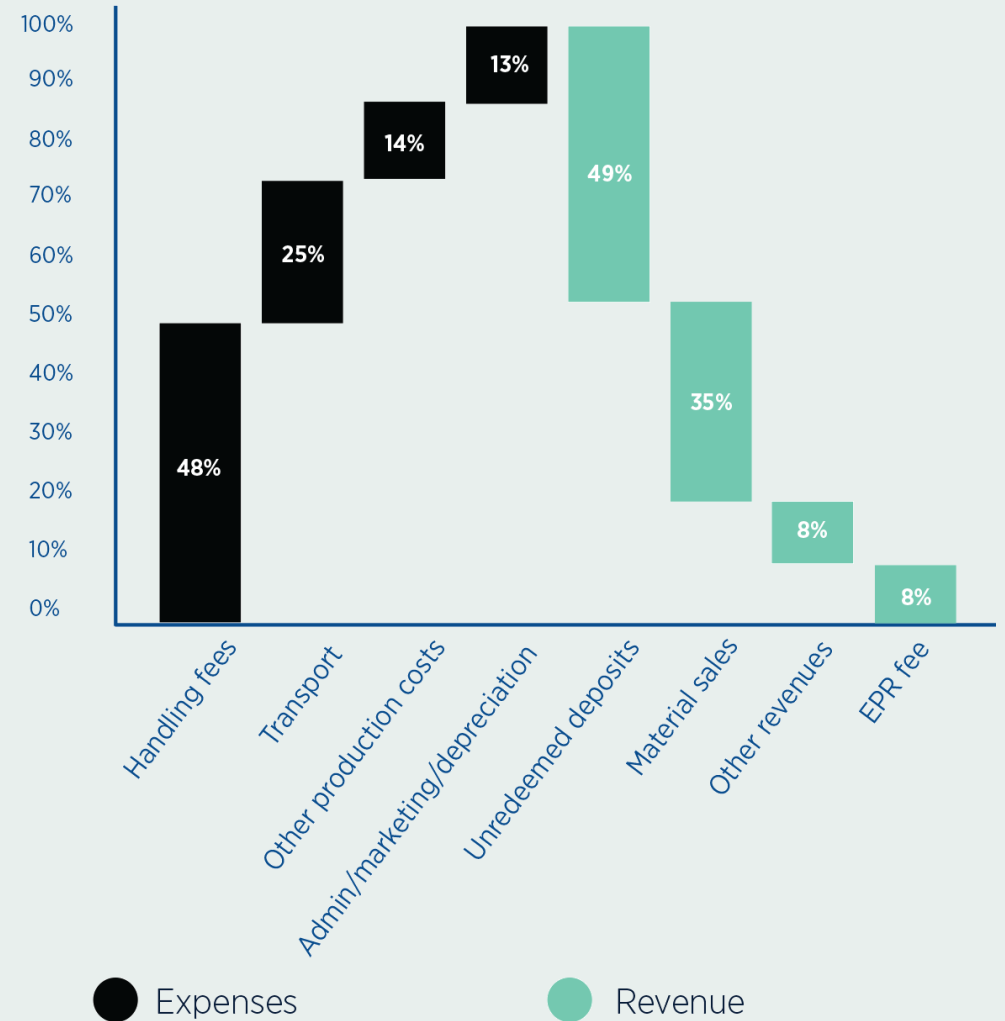


Producers finance the net costs of the system through an EPR fee and are incentivized to design an effective system for reaching the legislated return-rate target.

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)**



# Recycled content requirements complement deposit return systems



Market values for recycled material are volatile, making investment in collection/recycling risky



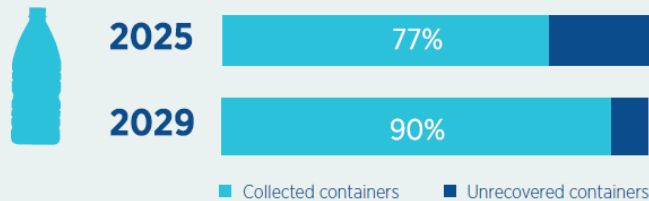
Lack of a stable market leads to a lack of supply for high-quality recycled material



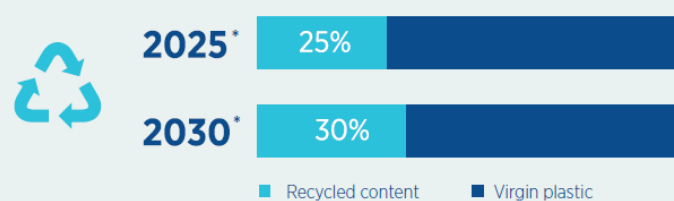
Content requirements raise and stabilize a key funding stream for the DRS: commodity value

## EU Single-Use Plastics Directive targets for plastic beverage bottles

Collection targets for plastic beverage bottles



Targets for recycled content in plastic beverage bottles



\* 2025 target for PET beverage bottles only, 2030 target for all plastic beverage bottles.



DRSs ensure containers consumed in a region are collected for recycling



Recycled content requirements ensure new bottles are made from recycled material

# 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



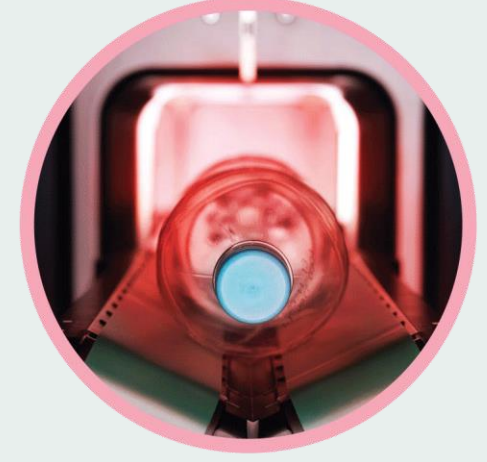
The redemption system is **easy, accessible and fair** for everyone.

## PRODUCER RESPONSIBILITY



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

## SYSTEM INTEGRITY



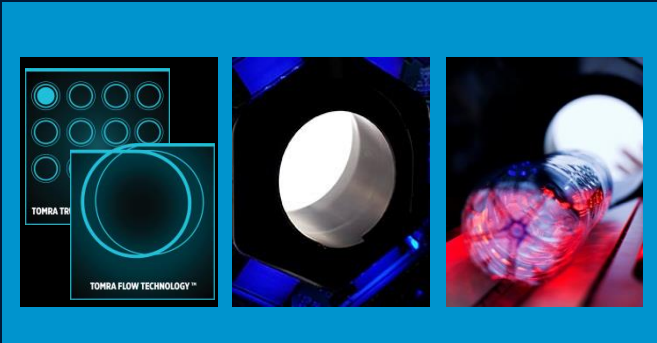
**Trust is built into the system's processes** through transparent management, a data-driven clearinghouse, and reliable redemption technology.



# Reverse vending technology in a high performing DRS



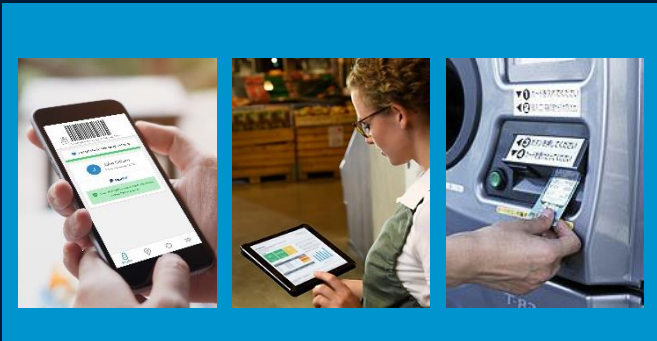
User communication



Recognition system

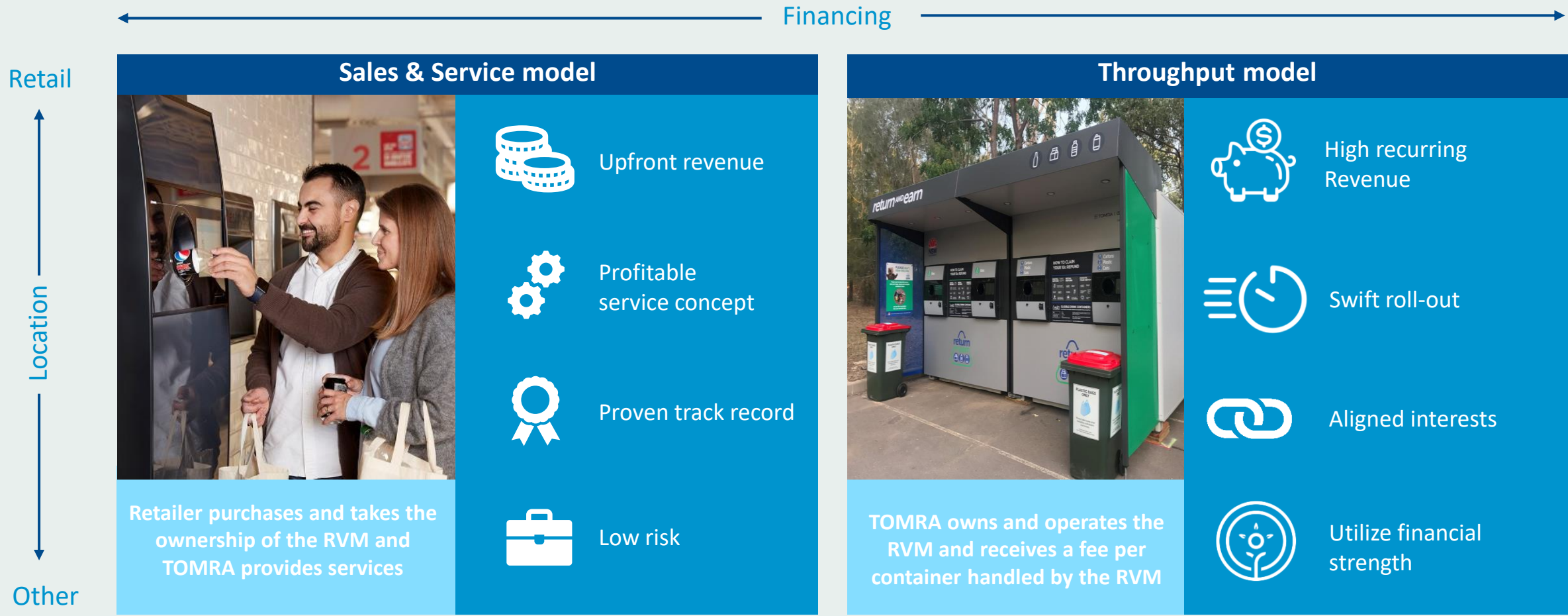


Sorting & processing



Data administration

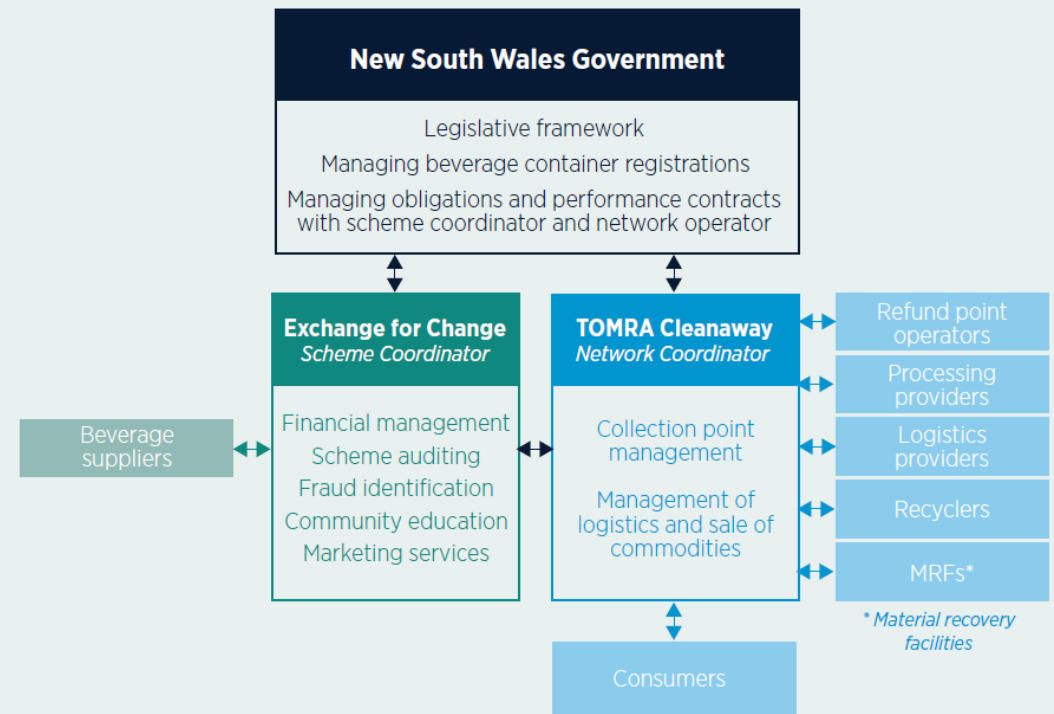
# Business model expertise across deposit systems



# A "split-responsibility" model is when a network operator provides redemption points and ensures recycling

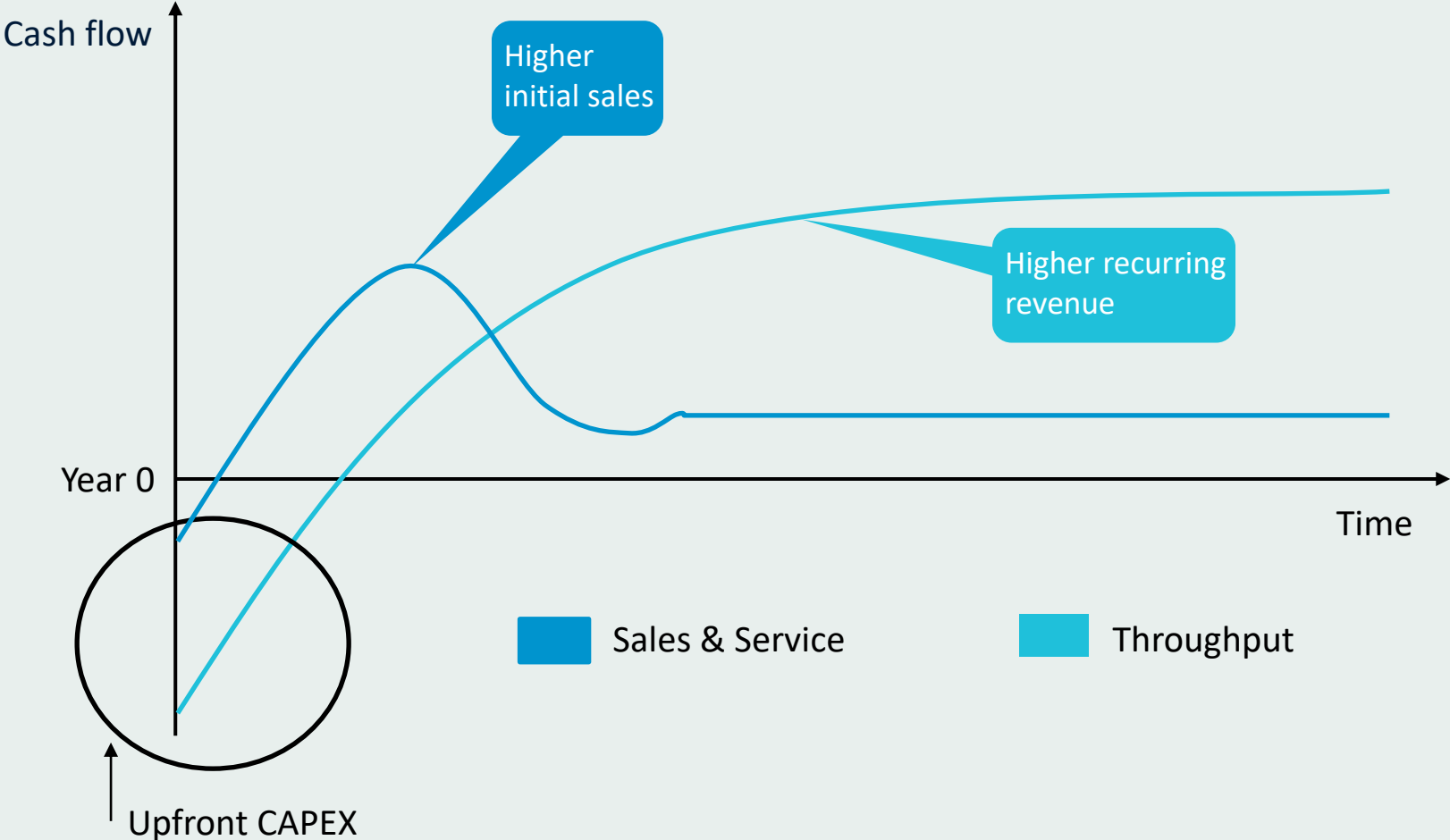


## Roles and responsibilities in the New South Wales Australia deposit return system



# Cash flow profiles of the two business models

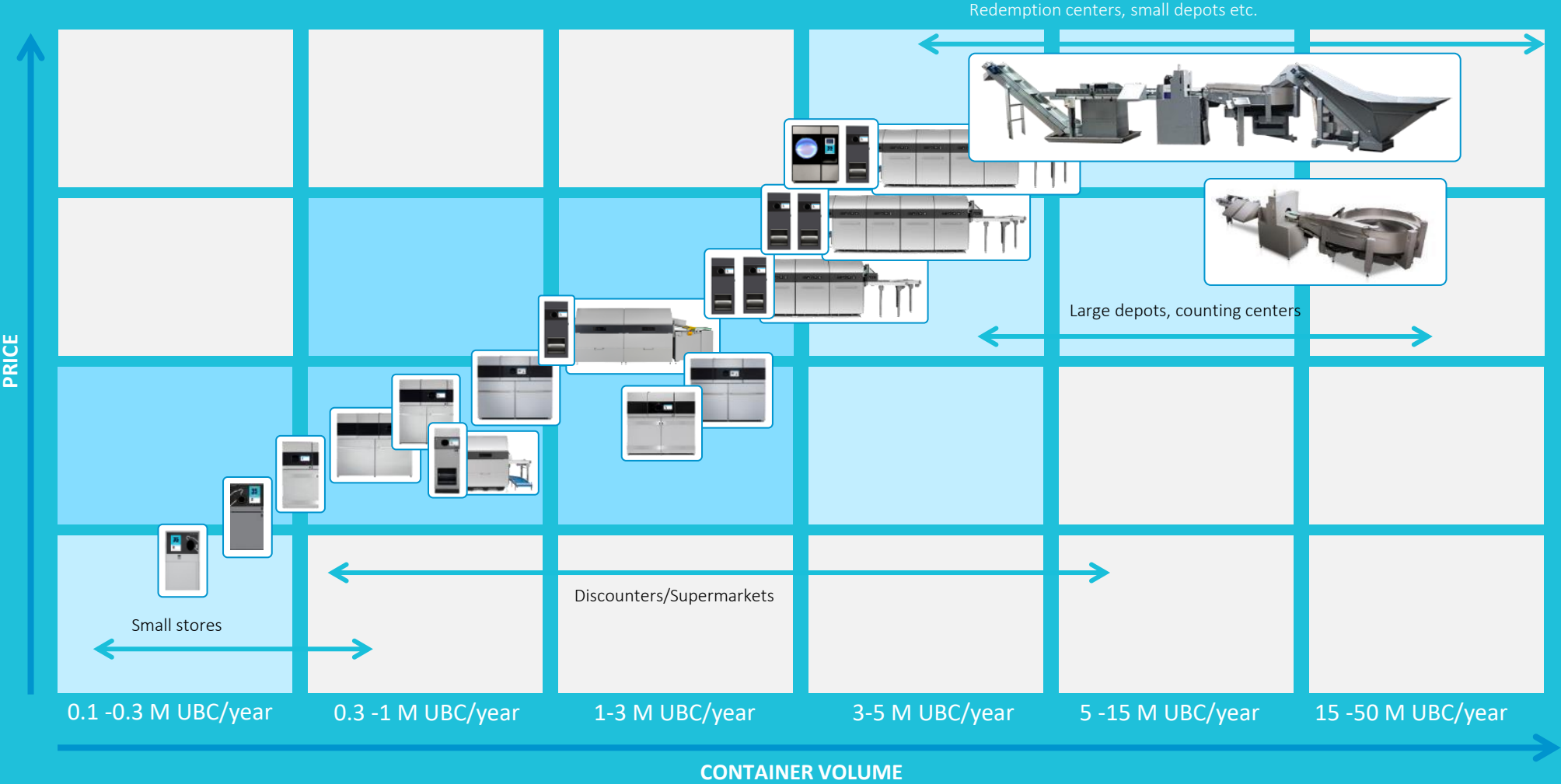
Illustrative cash flow profiles per machine



## Throughput model return profile

-  Higher CAPEX needs
-  Up-front investment
-  Bigger risk
-  More responsibility
-  Higher net present value

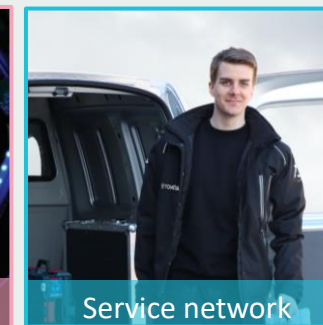
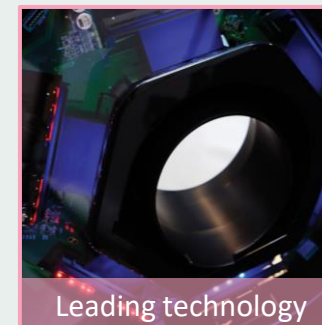
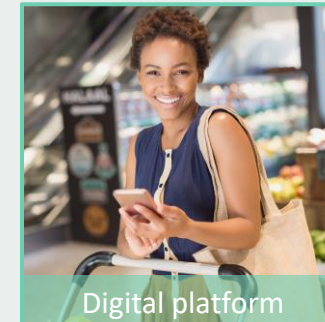
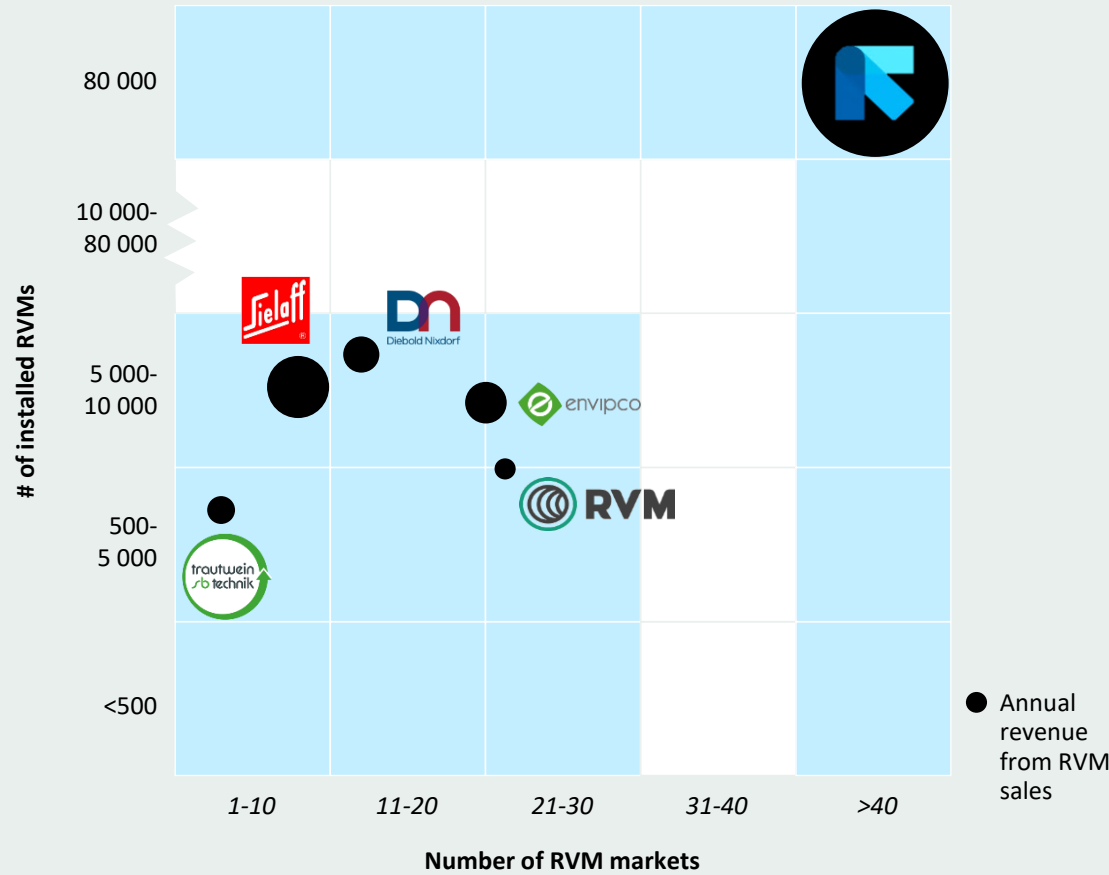
# Flexibility and scalability to enable new business models and new market entry



# Advanced digital platform leveraged across stakeholder groups



# Market leader in reverse vending solutions





# TOMRA RECYCLING MINING

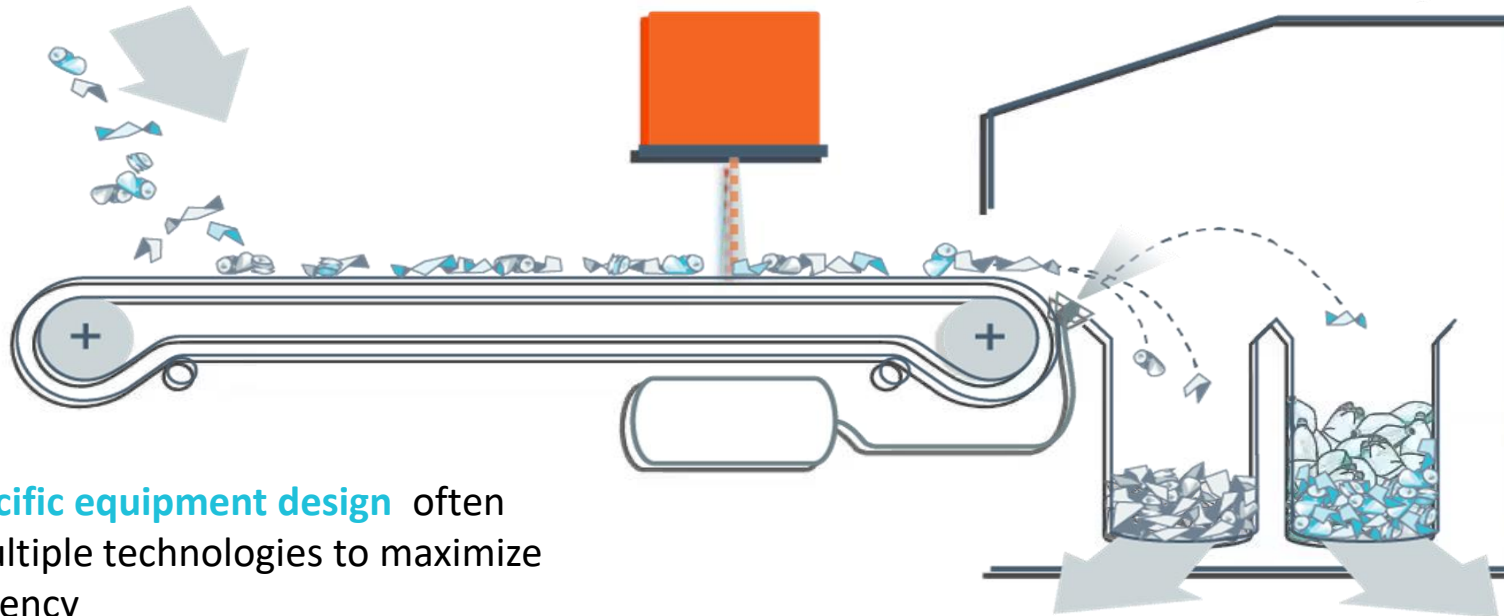


# How does sensor-based separation work?

Feeding of unsorted material

High-tech sensors to **identify objects**

Automated sorting process using different sensors for different sorting tasks

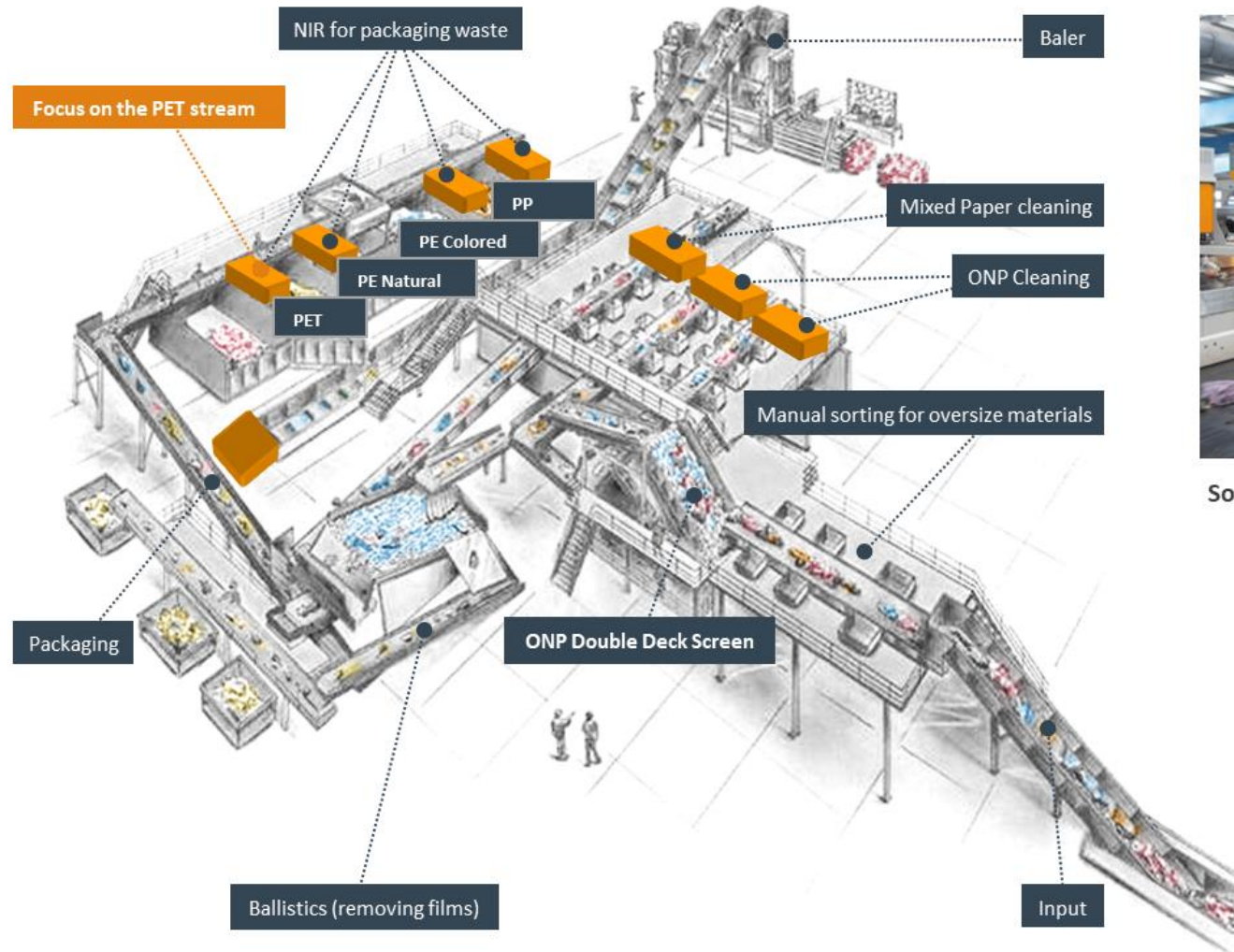


**Precise ejection** by ultra fast air jets

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

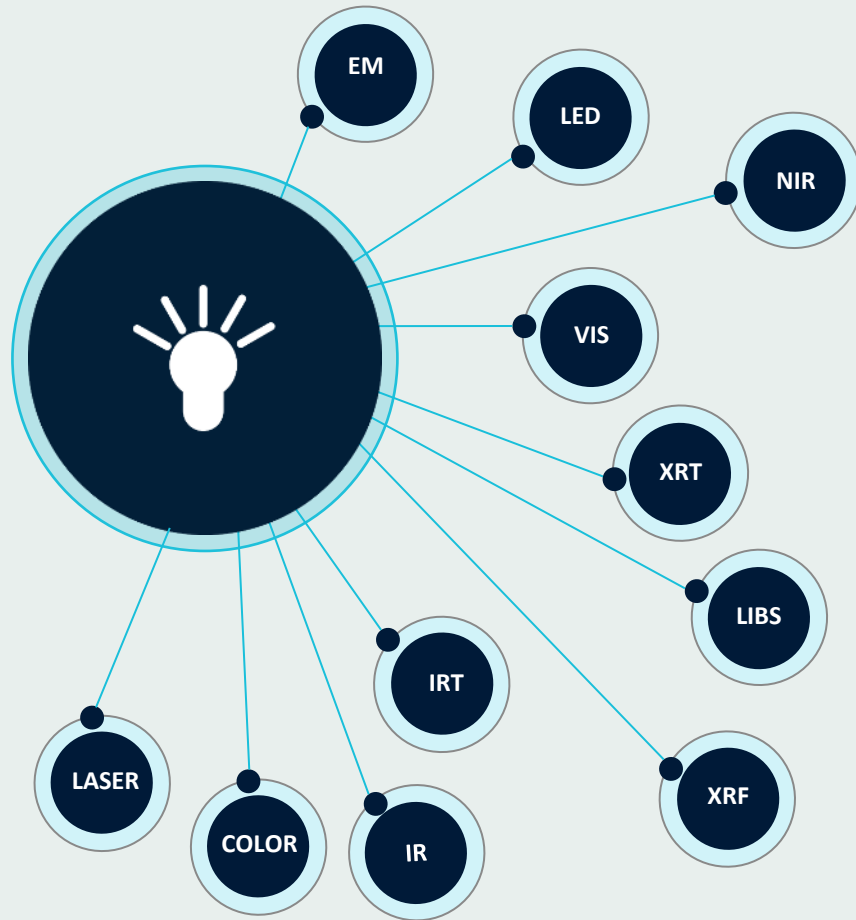
**High-speed processing** of information (material, shape, size, color, defect, damage and location of objects)

# Automation with TOMRA Sorting units



Sorting of Municipal Solid Waste, Cyprus

# A common sensor-based technology portfolio



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

# Recycling: applications and sensor technology

## MUNICIPAL SOLID WASTE



Hard plastics, plastic film,  
mixed paper, RDF,  
metals,  
organics/biomass

**NIR, VIS, XRT, LASER**

## PACKAGING



Plastics, plastic film,  
cardboard, mixed paper,  
deinking paper, metal

**NIR, VIS, EM**

## UPGRADING PLASTICS



PET, PE, PP, flakes

**NIR, VIS, EM**

## POST-SHREDDER



NF metal, stainless steel,  
copper cables, copper,  
brass,  
aluminum

**NIR, VIS, XRT, XRF, EM,  
COLOR**

## ELECTRONIC SCRAP



Printed circuit boards,  
non-ferrous metal  
concentrates,  
cables, copper, brass,  
stainless steel

**XRT, XRF, EM, NIR,  
COLOR**

## PAPER



Deinking, cardboard,  
carton

**NIR, VIS, EM**

# Mining: applications and sensor technology

## INDUSTRIAL MINERALS



Phosphate-silica removal, limestone-silica removal, quartz upgrade,  $MgO_2$ -silica removal, fluorite pre-conc., talc pre-conc., lithium pre-conc., barite pre-conc.,

**COLOR, XRT, NIR**

## NON-FERROUS METALS



Copper, zinc, gold, nickel, tungsten, silver, platinum group metals

**XRT, COLOR, EM, NIR**

## DIAMONDS



Kimberlite-waste removal, diamond ROM conc., diamonds final recovery, emeralds ROM conc., rubies ROM conc.

**COLOR, XRT, NIR**

## FUEL



Coal waste dumps

**XRT**

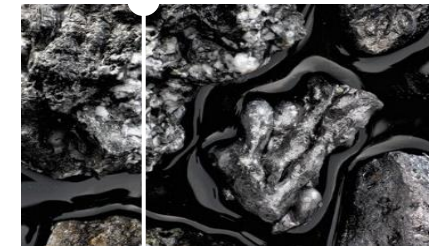
## FERROUS METALS



Iron ore grading, hematite pre-conc., manganese pre-conc., chromite pre-conc.

**XRT, EM, NIR**

## SLAG



Stainless steel slag, ferro silica slag, ferro chrome slag

**XRT, EM**

# FIRST-CLASS CUSTOMER SERVICE WORLDWIDE



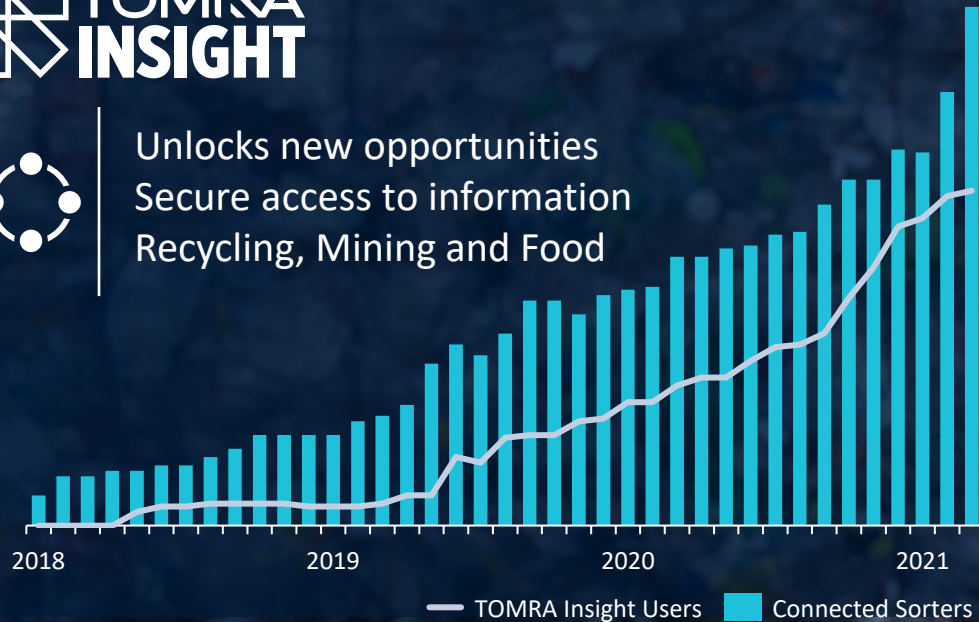
for highest sorting performance  
for lowest downtime  
for plannable costs



Having the best systems is not enough  
without a dedicated service team to keep  
them running in top condition.



Unlocks new opportunities  
Secure access to information  
Recycling, Mining and Food



## Reduce Downtime

Receiving and continuously analyzing production data allows to identify potential root causes of unplanned stops and optimize maintenance efforts to minimize downtime of the equipment and process.



## Maximize Throughput

Evaluating machine performance and product or material distributions on the machine or across the process leads to optimizations of the overall process and the possibility to maximize the throughput.



## SECURE ACCESS TO INFORMATION



## UNLOCKS NEW OPPORTUNITIES

Simplifying data acquisition, optimizing spare part ordering, or accessing documentation online and by that being able to access the required information when and where needed will help to reduce operational cost.

## Reduce Operational Cost

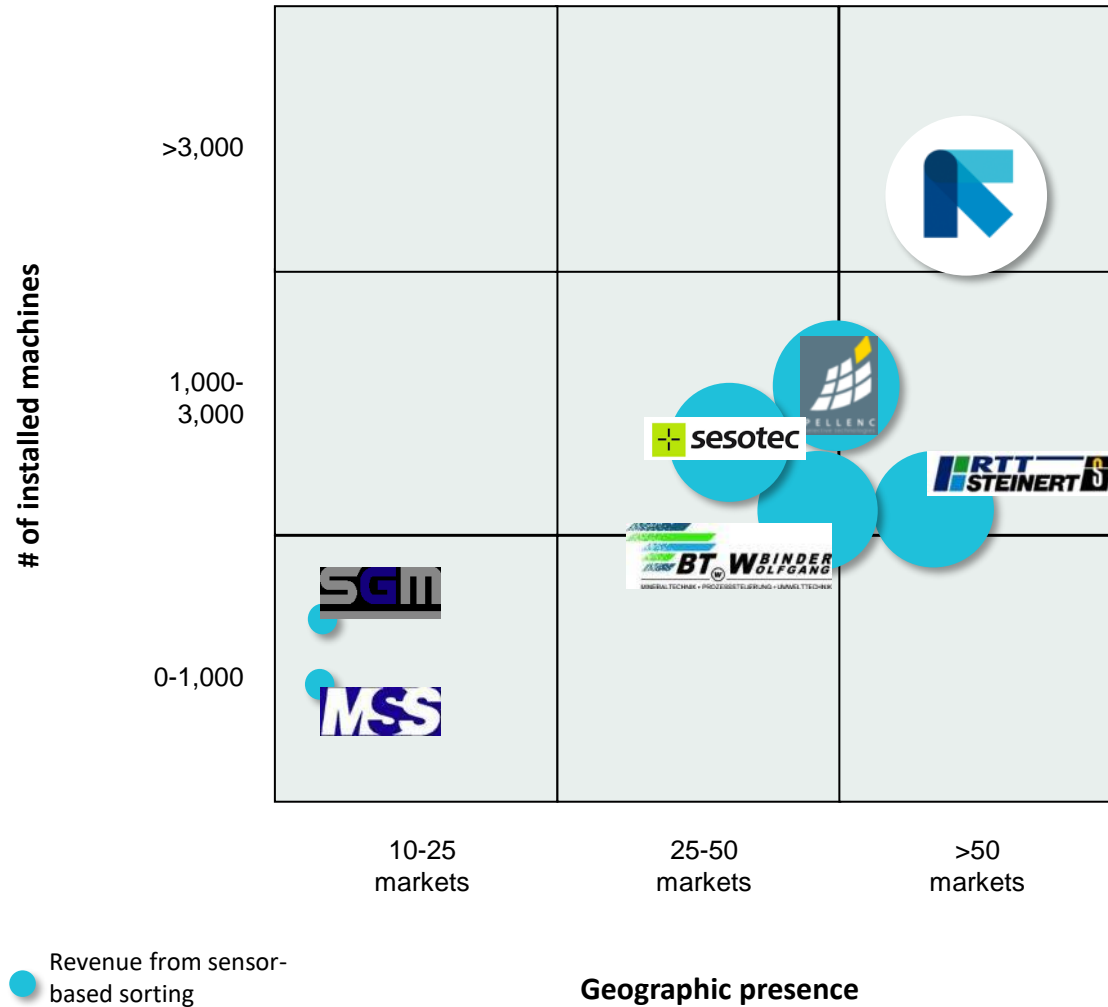


Continuously accessing product or material compositions and data related to the respective quality across the process or plants enables fact-based decision making to react faster and thereby improve product quality.

## Sort to Target Quality



# Recycling: competitive landscape

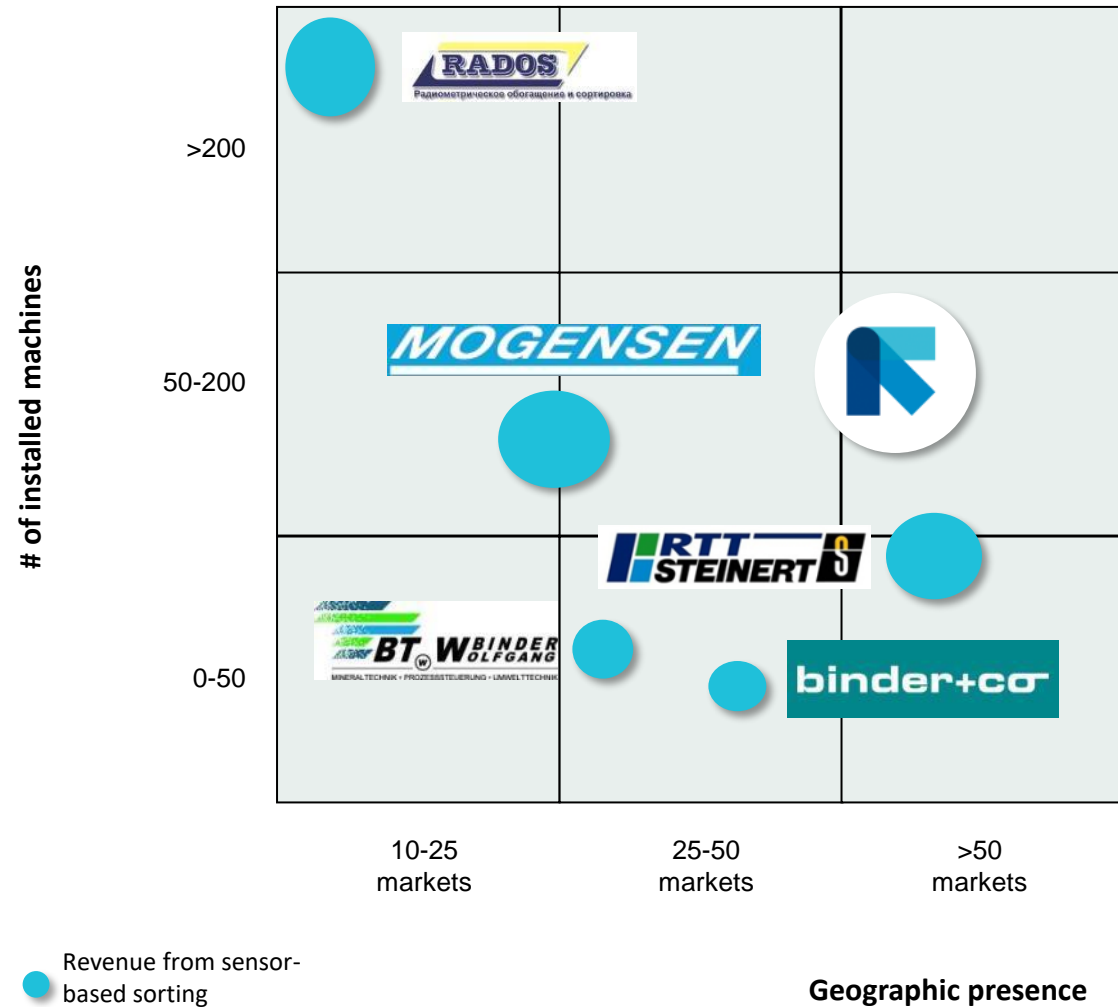


## TOMRA competitive positioning

- Largest installed base
- Highest revenues
- Broadest technology platform on WR
- Highest number of applications and markets served
- Leading brand
- **Market share: 55-60%**



# Mining: competitive landscape



## TOMRA competitive positioning

- Wide geographical coverage
- Broadest technology platform
- Leading brand
- **Market share: 40-50%**

# RESOURCES ARE FINITE

- **Today:** we are paying to get rid of our waste through landfill fees and incineration
- We are wasting perfectly good materials that can be reused
- **Tomorrow:** The Circular Economy is a driver for change
- Creating **value out of waste**
- That is what the **Circular Economy** is all about

# The circular economy drives a legislative push...

Continued ambitious EU regulations and recycling targets:  
**Attract capital and drives investments**



European Commission

**CIRCULAR ECONOMY**  
Closing the loop  
AN AMBITIOUS EU CIRCULAR ECONOMY PACKAGE

**“A common EU target for recycling 70% of packaging waste by 2030”**

The Strategy also highlights the need for specific measures, possibly a legislative instrument, to reduce the impact of single-use plastics, particularly in our seas and oceans

- **From Green Fence to National Sword:** Short-term demand for recycling solutions in waste exporting countries



- Limits the import of contaminated recyclable commodities and increases inspections of recyclable commodity imports
- Purity level set to 99.5%

# ...promoting recycling



## 2018 CIRCULAR ECONOMY PACKAGE

	Description	Targets and measures
<b>Waste Framework Directive</b>	<ul style="list-style-type: none"> <li>Rules on how waste should be managed in the EU. It provides general principles for doing so, such as the Waste Hierarchy, Polluter Pays Principle and Extended Producer Responsibility.</li> </ul>	<ul style="list-style-type: none"> <li>A common EU target for recycling 60% of municipal waste by 2030</li> <li>A common EU target for recycling 70% of all packaging waste by 2030</li> <li>A common EU target for recycling 55% of all plastics by 2030</li> <li>A binding landfill target to reduce landfill to maximum of 10% of municipal waste by 2030</li> <li>Minimum requirements are established for extended producer responsibility schemes</li> <li>Simplified and improved definitions and harmonized calculation methods for recycling rates</li> <li>Concrete measures to promote re-use and stimulate industrial symbiosis</li> <li>Economic incentives for producers to put greener products on the market and support recovery and recycling schemes</li> </ul>
<b>Packaging and Packaging Waste Directive</b>	<ul style="list-style-type: none"> <li>Rules on the production, marketing, use, recycling and refilling of containers of liquids for human consumption and on the disposal of used containers</li> <li>2015 revision includes lightweight plastic carrier bags</li> </ul>	
<b>Waste Electrical and Electronic Equipment (WEEE) Directive</b>	<ul style="list-style-type: none"> <li>Collection, recycling and recovery targets for all types of electrical goods</li> <li>10 categories: Large household appliances, Small household appliances, IT and telco equipment, Consumer equipment, Lighting equipment, Electrical and electronic tools, Toys, Leisure and sports equipment, Medical devices, Monitoring and control instruments, Automatic dispensers</li> </ul>	
<b>Landfill Directive</b>	<ul style="list-style-type: none"> <li>The objective of the Directive is to prevent or reduce as far as possible negative effects on the environment from the landfilling of waste</li> <li>In particular: impact on surface water, groundwater, soil, air, and on human health by introducing stringent technical requirements for waste and landfills.</li> </ul>	
<b>End of Life Vehicle (ELV) Directive</b>	<ul style="list-style-type: none"> <li>Aims at reduction of waste arising from end-of-life vehicles</li> <li>The scope of the directive is limited to passenger cars and light commercial vehicles</li> </ul>	



...and a market pull

**100%** reusable, recyclable or  
compostable **plastic packaging**  
**by 2025**

Follow their lead



**PEPSICO**

M&S  
EST. 1884



WERNER & MERTZ

L'ORÉAL

MARS  
incorporated

*The Coca-Cola Company*

Large companies committing to use recycled raw materials = increased demand for recycled offtake

# Circular Economy – Innovating through collaboration



TOMRA and Borealis, in collaboration with Zimmerman, opened a demo plant for advanced mechanical recycling with the purpose of generating material for brand owners and converters to qualify, validate and prove fit for use in their applications.



The demo plant covers the process from post consumer waste to production of recycled polymers.

PET	PE	PE	PE	PP	PP	PVC	PUR	PS	Other
8%	30%			19%		10%	8%	6%	19%

PET is the main polymer type in the market for high quality recycled plastics. However, PET accounts for less than 10% of plastic packaging\*. Proving other polymer types is an important enabler of plastic circularity.



“One major challenge towards more circular packaging is the availability of high-quality recycled plastics that can be used in the packaging of our brands.”

Dr. Thorsten Leopold, Director International Packaging Technology Home Care Henkel

# Recycling: market growth expectations

## MARKET DEFINITION RECYLING

### Sensor-based sorting equipment

- excluding cullet glass sorting
- excluding peripheral equipment and turn-key solutions

## AFFECTING FACTORS

Tightening regulation

Access to capital

Consumer awareness

Commodity price  
fluctuations

Political instability  
(emerging markets)

Emerging countries ban



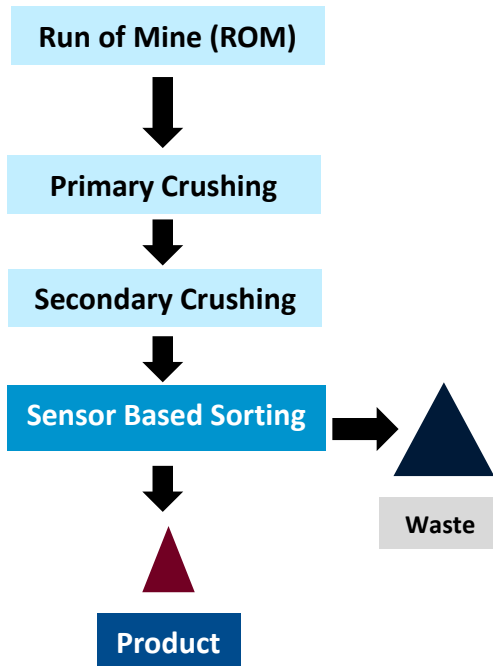
# INTELLIGENT MINE

- **Mining** is an old industry. But chances are that it will **look very different** in 10 years time
- Energy intensity and water stress are major drivers...
- **...for disruptive technology forces to reshape the industry**
- Commodity prices and capex impact the investment sentiment



# The concept of sensor-based sorting in mining

## Mining process: Industrial minerals

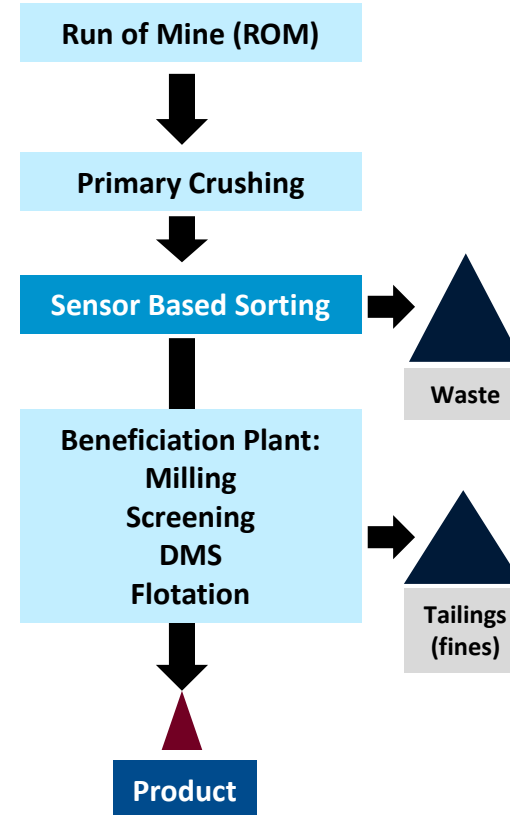


Current segment



- 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

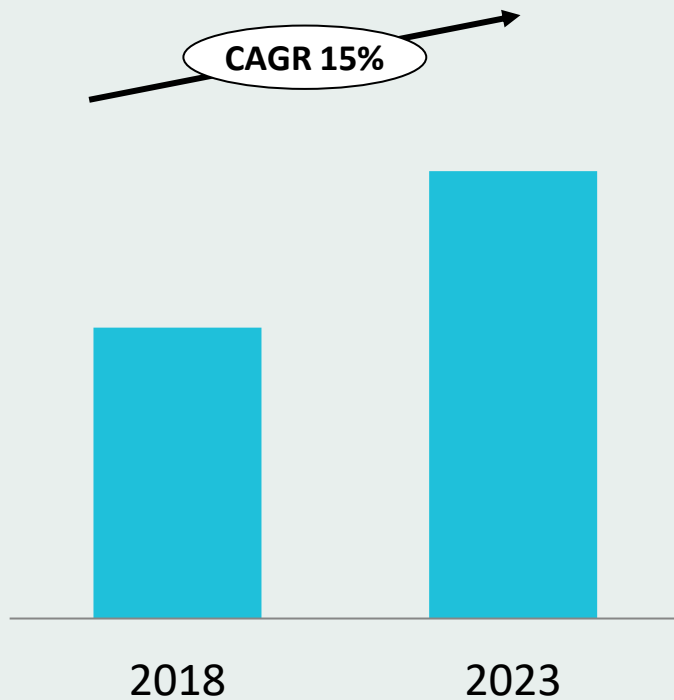
## Mining process: Metal mining



Potential new segment

# Mining: market growth expectations

Total annual market size



## MARKET DEFINITION MINING

### Sensor-based sorting equipment

- is still a technology to be accepted
- growth is conditional on new applications and technologies being developed

## AFFECTING FACTORS

Political climate

Access to capital

Cost drivers

Commodity price  
fluctuations



# TOMRA FOOD



# FOOD FOR THOUGHT

- We will need more food in the next 40 years than **all the harvests in history combined**
- But **farmland is constant** – at best
- The food you eat will have **travelled more than you have**

# Automation continues on a strong growth trajectory

From...



To...



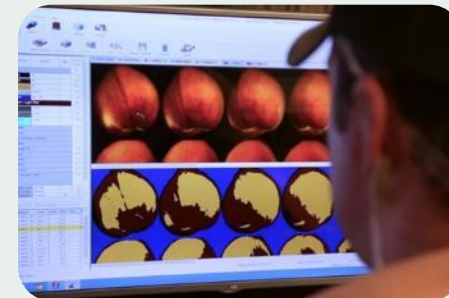
Robotics become cheaper, more advanced and user-friendly

Higher labor cost and labor shortages



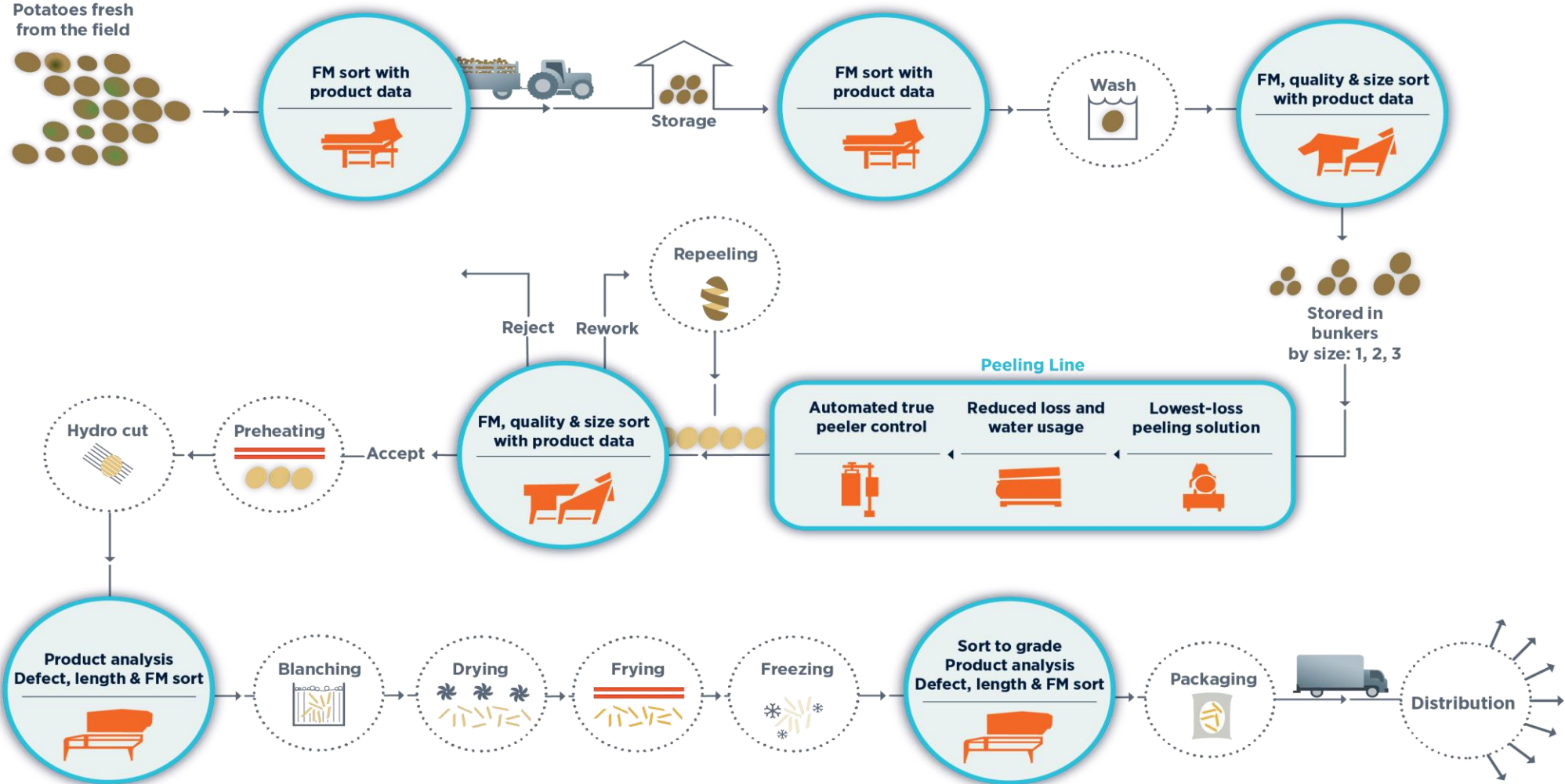
Ensure quality and safety

Improve efficiency



Leverage data insight

# Creating value in various parts of the food process



# Food: applications and sensor technology

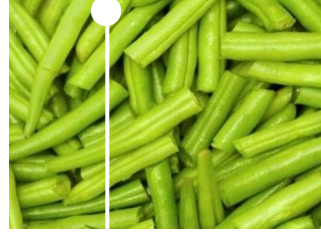
## POTATOES



Chips, French fries, peeled, specialty products, sweet potatoes, unpeeled, washed

**LASER, CAMERA, BSI, PULSED LED**

## VEGETABLES



Beans, beets, broccoli, carrots, corn, cucumbers, industrial spinach, IQF vegetables, jalapenos/peppers, onions, peas, pickles

**LASER, CAMERA, BSI, PULSED LED**

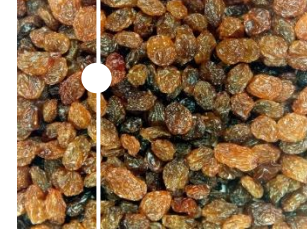
## NUTS



Almonds, cashews, hazelnuts, macadamias, peanuts, pecans, pistachios, walnuts

**LASER, CAMERA, X-RAY**

## DRIED FRUIT



Apricots, cranberries, dates, figs, prunes, raisins

**LASER, CAMERA, BSI, X-RAY**

## SEEDS & GRAINS



Barley, coffee, corn, dry beans, lentils, oat, pulses, pumpkin, sunflower and watermelon seeds, wheat

**LASER, CAMERA, BSI, X-RAY**

## FRUIT



Apples, blackberries, blueberries, cherries, cranberries, peaches & pears, raspberries, strawberries, tomatoes

**LASER, CAMERA, BSI, PULSED LED**

## FRESH CUT



Baby leaves, iceberg lettuce, spinach, spring mix

**LASER, CAMERA**

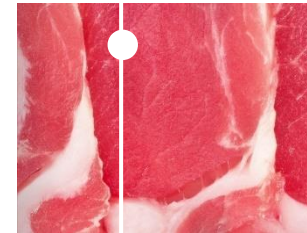
## SEAFOOD



Mussels, scallops, seaweed, shrimps, tuna, pet food

**LASER, CAMERA, BSI, X-RAY, INTERACTANCE SPECTROSCOPY**

## PROTEIN



Bacon bits, beef, chicken breasts, hot dogs, IQF meat, pork, pork rind, sausages, pet food

**LASER, CAMERA, BSI, INTERACTANCE SPECTROSCOPY**

## OTHERS



Gummies, Tobacco

**LASER, CAMERA**

# Our products are detecting a wide range of parameters



## Color

Removal of discolorations in mono- and mixed-color material



## Blemishes

Objects with spots or other (small) blemishes are removed



## Defects

Removal of visible and invisible small and substantial defects



## Structure

Removal of soft, molded or rotten food



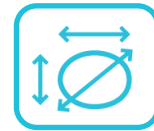
## Density

Detection of density differences



## Damage

Broken, split and damaged objects are detected and removed



## Shape & Size

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



## Biometric Characteristics

Sort based on water content and removal of mycotoxin contaminations



## Foreign Material

Removal of foreign material in a material stream, e.g. insects, worms, snails or plastics in food applications



## Fluo

Based on the chlorophyll level present in produce defects are removed



## X-RAY

Analysis of objects based on their density and shape



## Detox

Removal of produce contaminated with aflatoxin

Visible

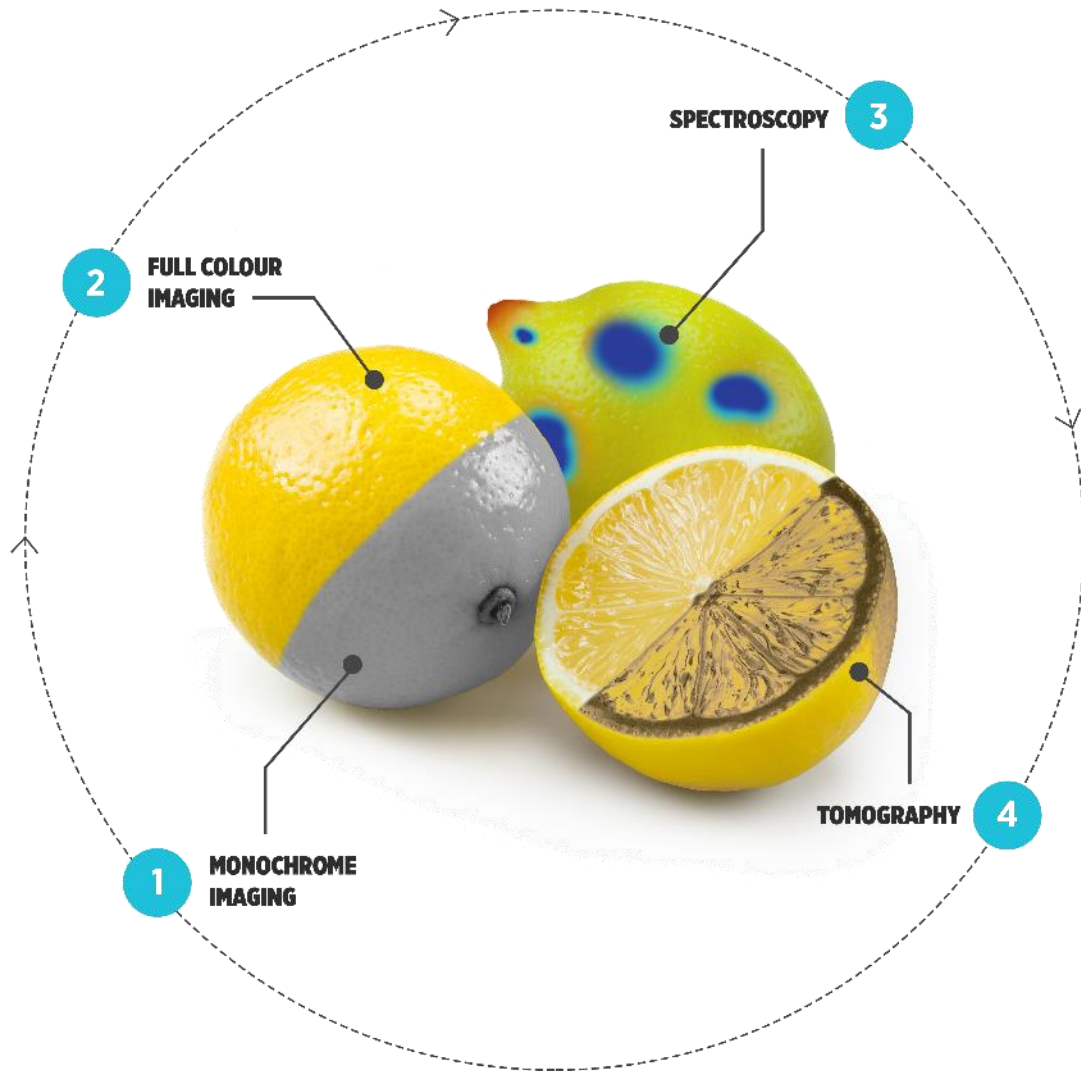
Invisible

Both





# New sensor technologies will unlock new opportunities...



- From measuring visual appearance...

... to measuring

Internal defects

Taste

Shelf life / Freshness

Food hazards

# Top Food Categories



Potatoes



Nuts & Dried Fruit



Vegetables



Apples



Citrus



Berries



Cherries



Fresh Cut



Avocados



Kiwifruit



Grains & Seeds

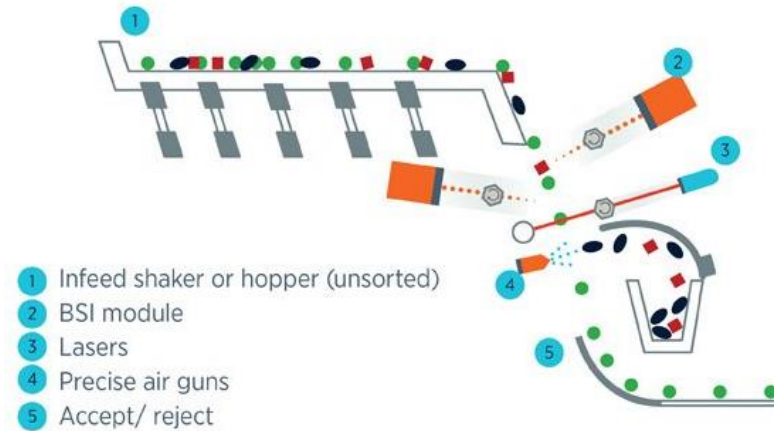
# Three ways of sorting within the Food segment

Free fall (Channel / Chute)	
Application	Seeds, rice, grains
Sensor tech.	Camera (simple)
Revenue share*	Approx. 60%

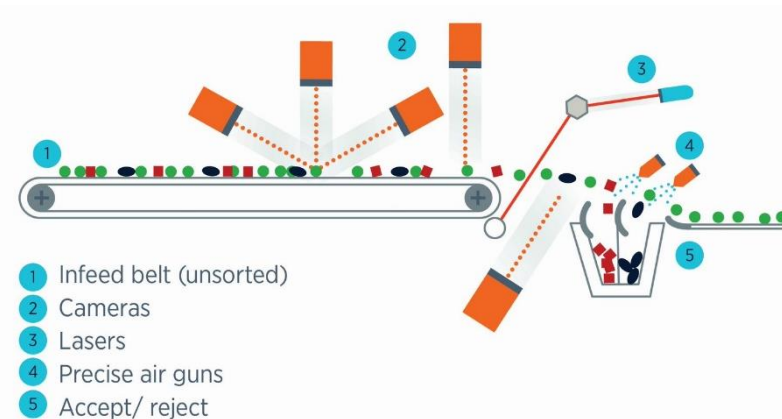
Belt	
Application	Prepared /preserved veg. and fruit
Sensor tech.	Several (complex)
Revenue share	Approx. 20%

Lane	
Application	Fresh produce
Sensor tech.	Several (medium)
Revenue share	Approx. 20%

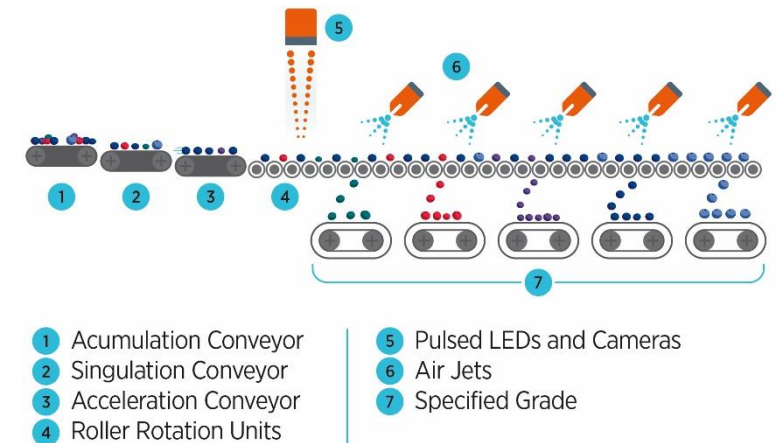
## Chute or Channel sorter



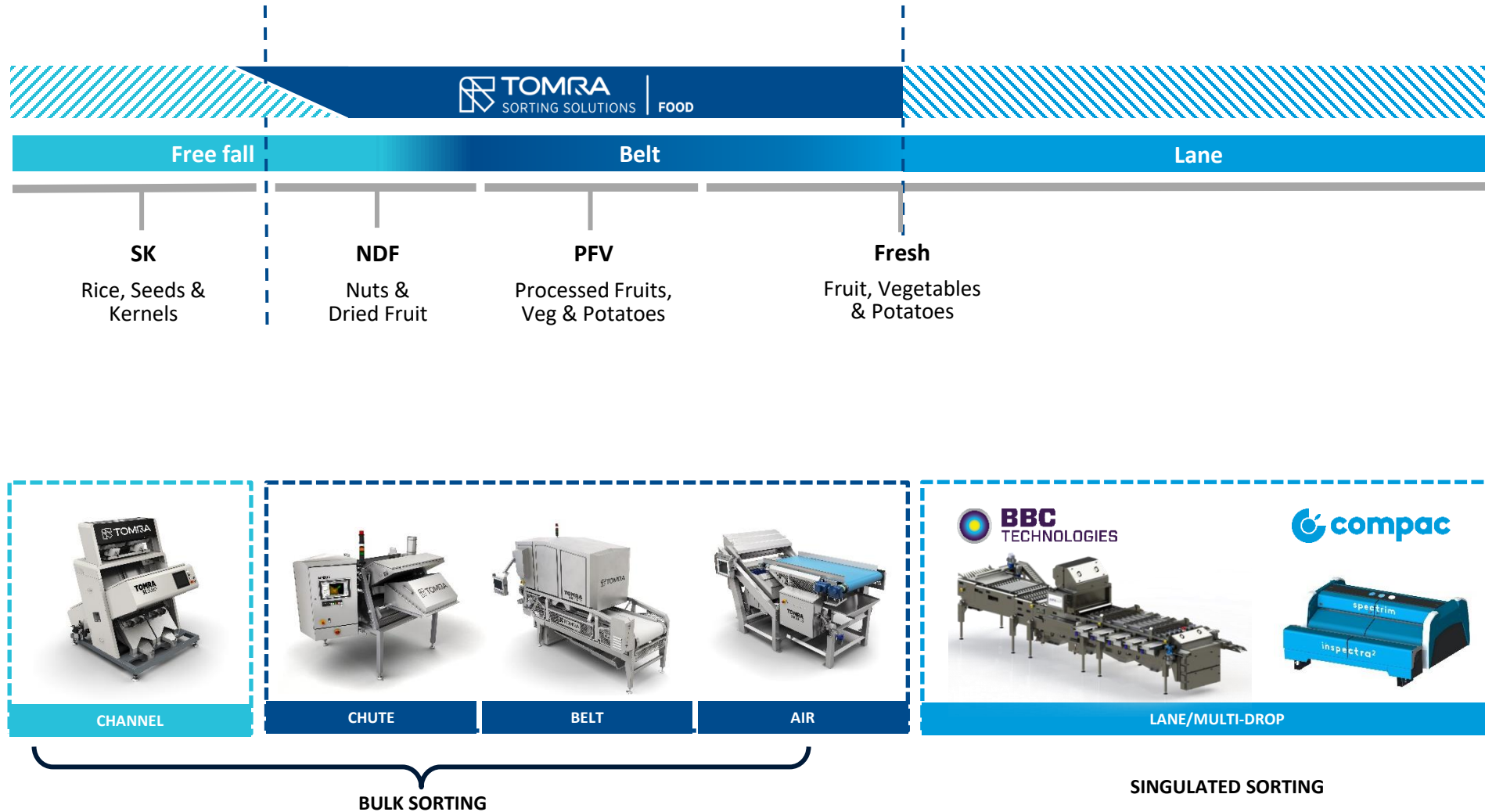
## On belt inspection



## Lane grading

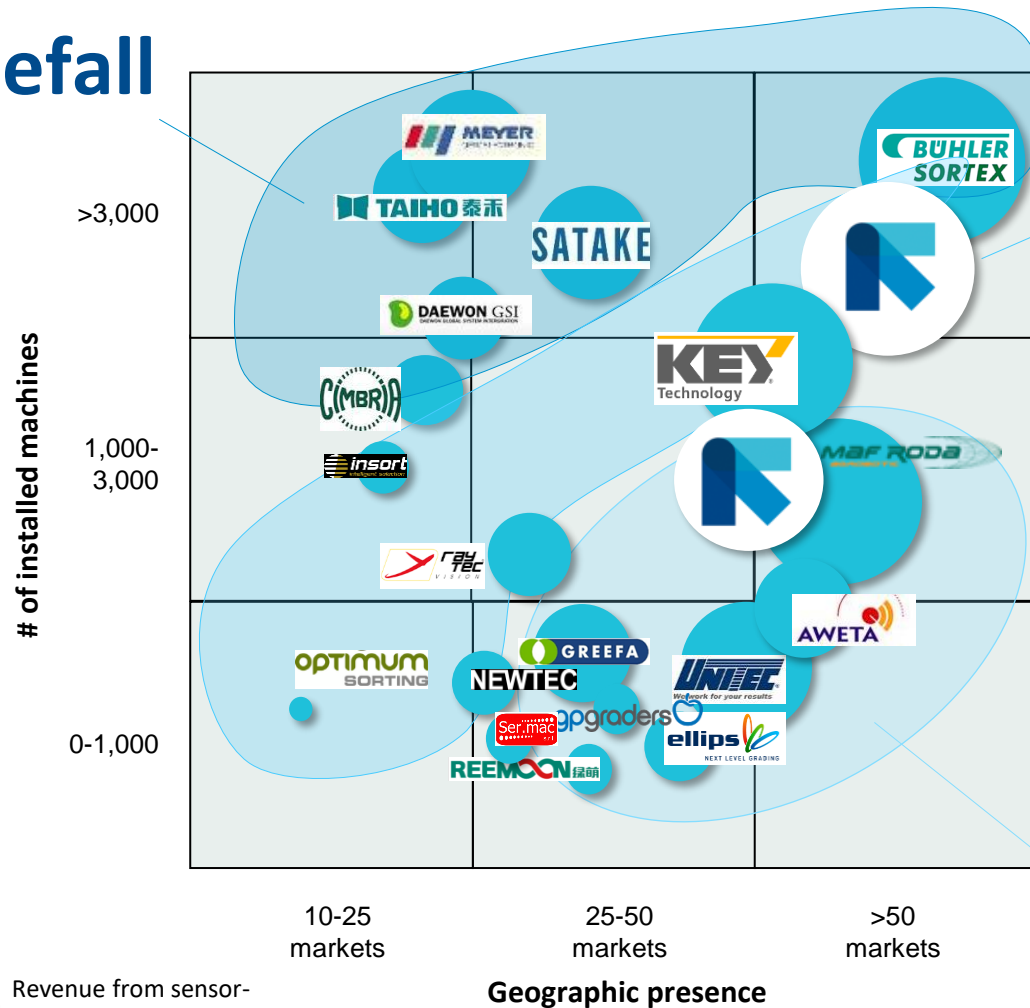


# TOMRA has established the broadest footprint within food sorting



# Food competitive landscape

Freefall



Belt

## TOMRA competitive positioning

- Size (revenues)
- Widest range of applications (150+)
- Broadest technology base
- Geographic reach (~80 countries)

Lane

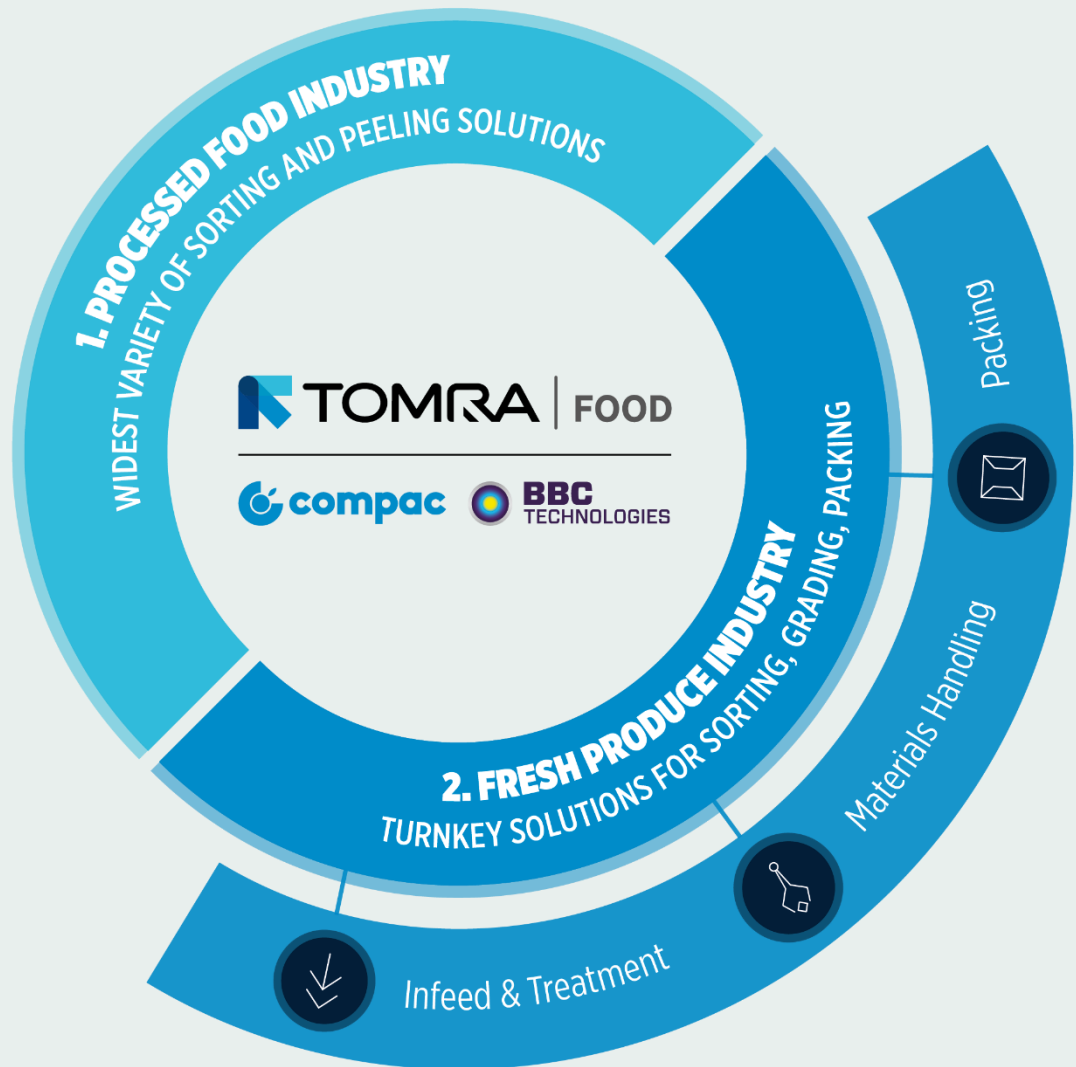
# Global Leader



Sorting & Grading



Data & Analytics



Artificial Intelligence



Service & Support

# Our food sorting customers

## PROCESSED FOOD INDUSTRY



## FRESH PRODUCE INDUSTRY



# TOMRA Food Locations

1400+

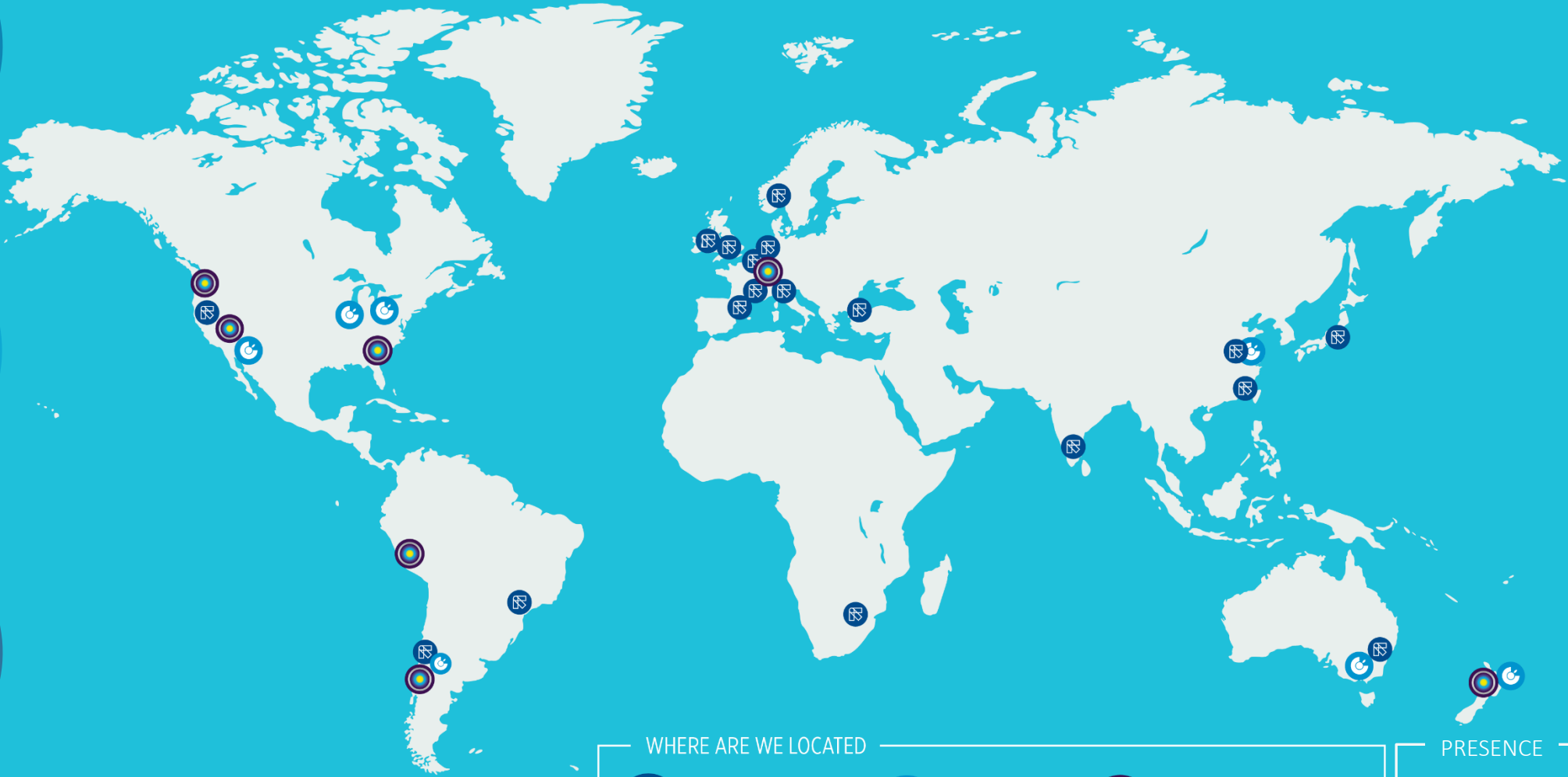
TOMRA FOOD  
TEAM

32

GLOBAL  
OFFICES

4

PRODUCTION  
FACILITIES



WHERE ARE WE LOCATED



TOMRA Food



Compac



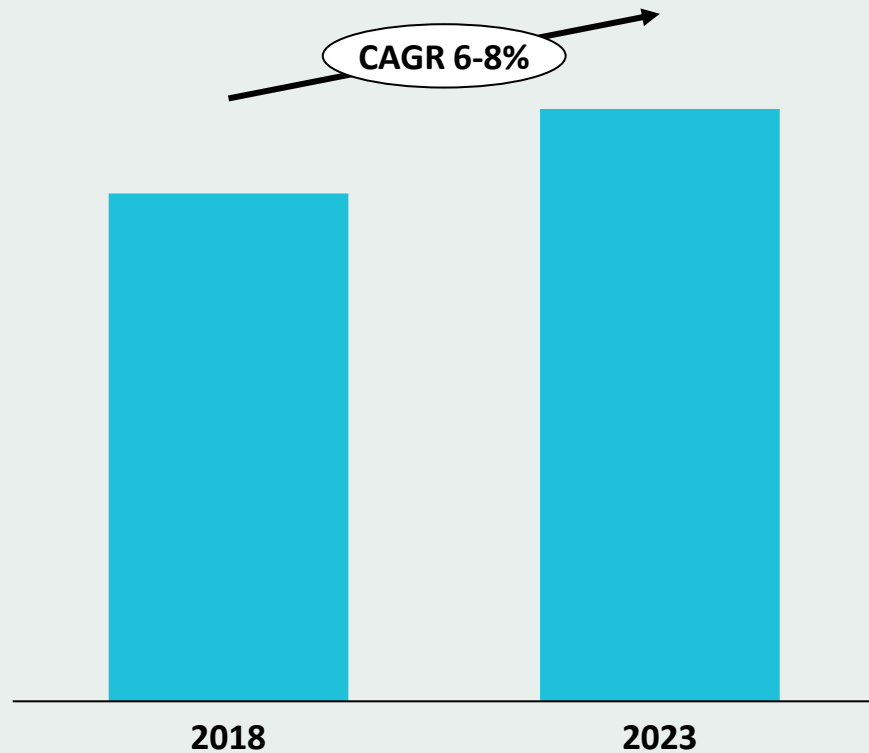
BBC Technologies

PRESENCE

80  
countries



# Market growth expectations – food



## MARKET DEFINITION FOOD

### Sensor-based sorting and grading equipment

- Including color sorting
- Excluding peripheral equipment and turn-key solutions

### Fresh and processed segment

## AFFECTING FACTORS

Weather conditions

Raw material pricing

Manual labor availability and cost

Urbanization and living standards

Global trade agreements and tariffs

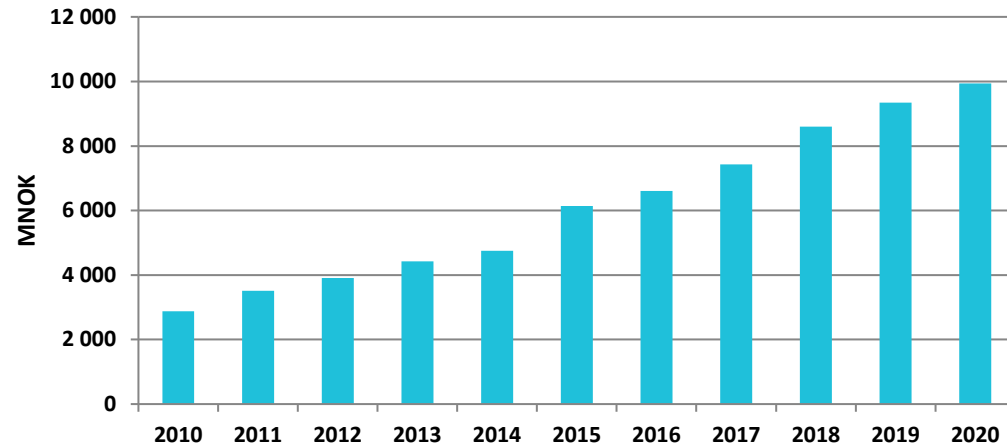
Geopolitical and other global events

A close-up photograph of a complex, perforated metal structure, possibly a heat exchanger or a filter. The structure consists of numerous interconnected, thin metal plates or tubes, creating a dense, lattice-like pattern. The lighting is dramatic, with strong highlights and deep shadows, giving the structure a three-dimensional appearance. The background is a soft, out-of-focus blue. A dark horizontal band is overlaid across the middle of the image, containing white text.

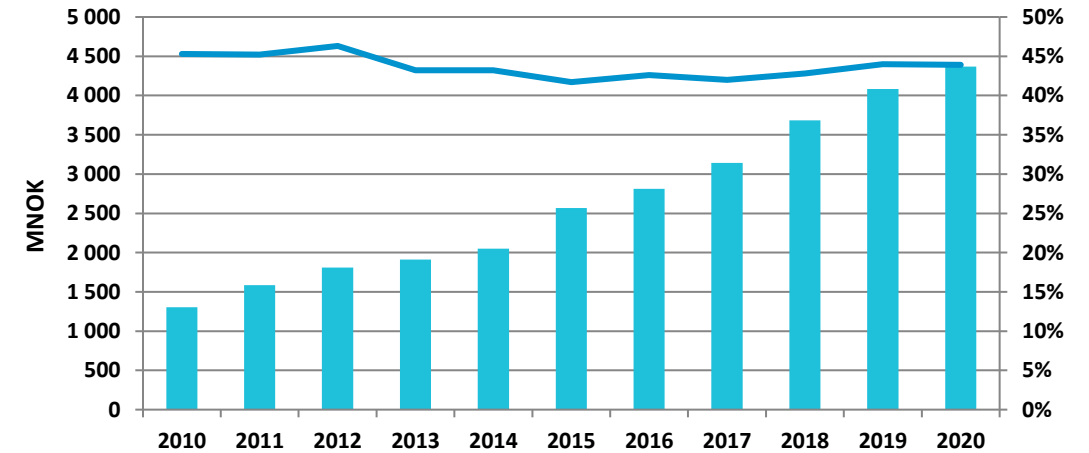
# HISTORICAL GROUP FINANCIALS AND TARGETS

# Group financials development – solid track record

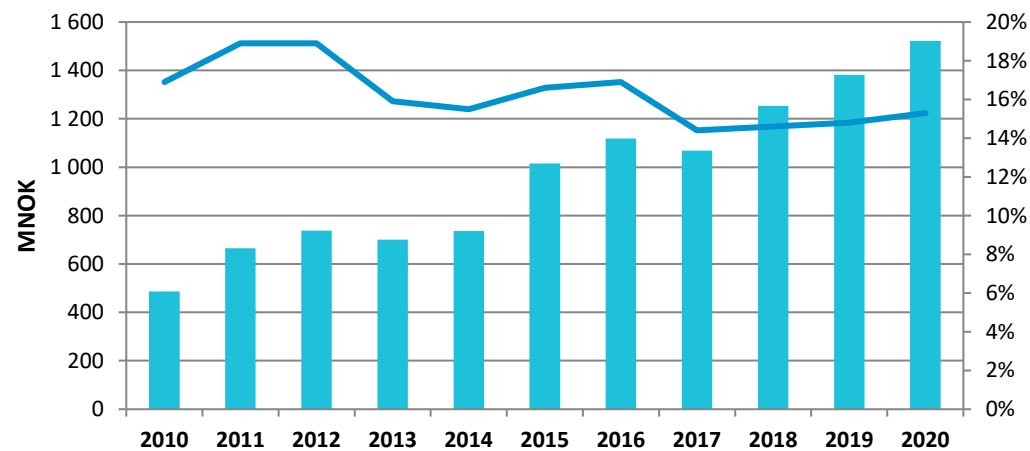
## Revenues



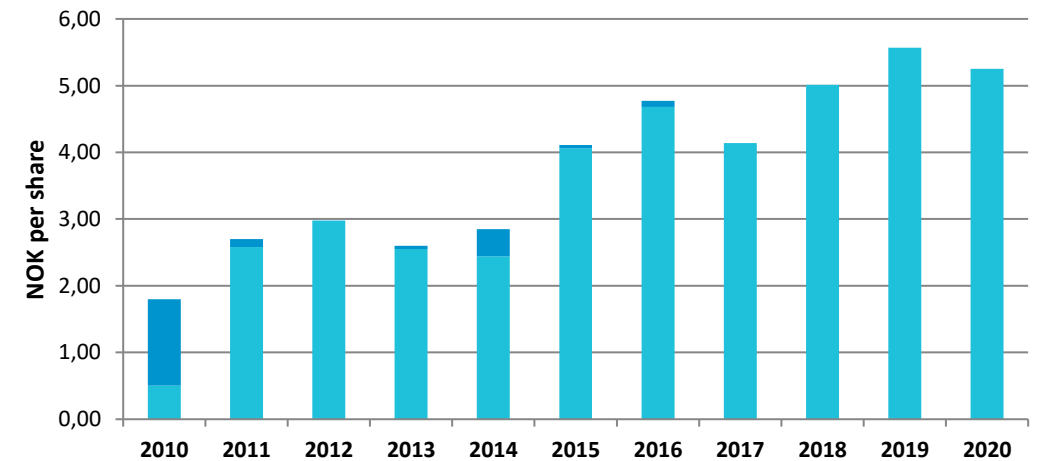
## Gross contribution and margin



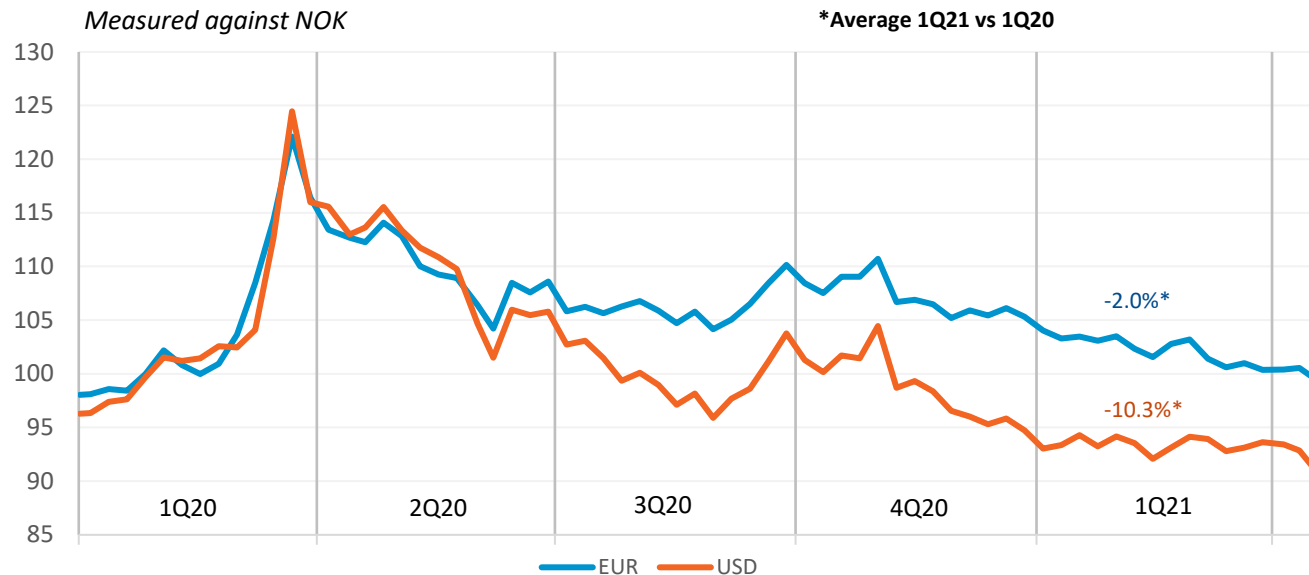
## EBITA and margin



## Earnings per share



# Currency risk and hedging policy



**10% change in NOK towards other currencies will impact:**

	Revenues	Expenses	EBITA
EUR*	4.5%	4.0%	7.0%
USD	3.5%	2.5%	8.0%
OTHER**	2.0%	3.0%	-4.0%
<b>ALL</b>	<b>10.0%</b>	<b>9.5%</b>	<b>11.0%</b>

## Revenues and expenses per currency:

	EUR <sup>1</sup>	USD	NOK	OTHER <sup>2</sup>	TOTAL
Revenues	45 %	35 %	0 %	20 %	100 %
Expenses	40 %	25 %	5 %	30 %	100 %

## Assets and liabilities per currency:

	EUR <sup>1</sup>	USD	NOK	OTHER <sup>2</sup>	TOTAL
Assets	45 %	15 %	10 %	30 %	100 %
Liabilities	55 %	15 %	10 %	20 %	100 %

<sup>1</sup> EUR includes DKK

<sup>2</sup> Most important: AUD, NZD, RMB, CAD, SEK, GBP and JPY

NOTE: Estimated and rounded figures

## HEDGING POLICY

### CASHFLOW AND P/L

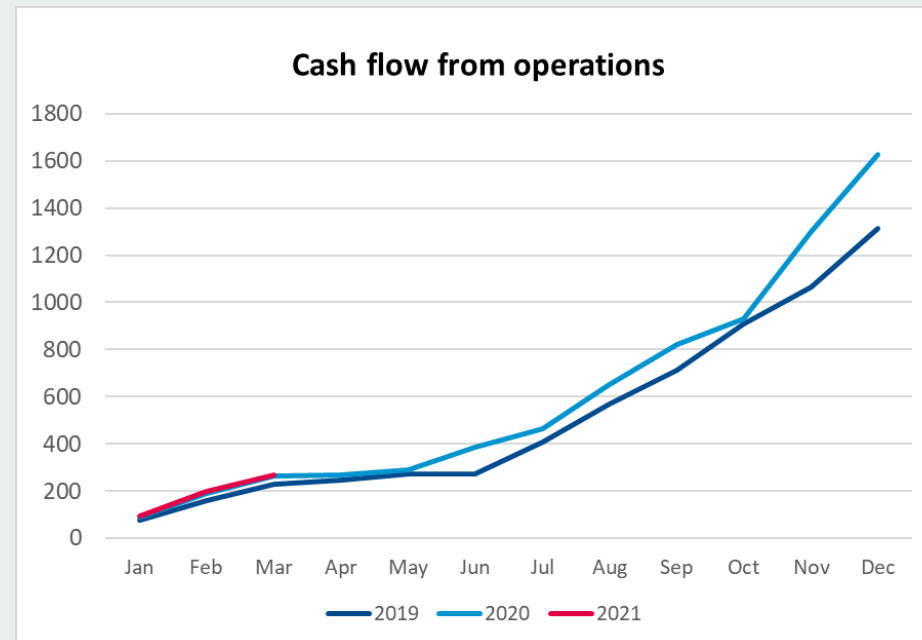
- TOMRA can hedge up to one year of future predicted cash flows. Gains and losses on these hedges are recorded at the finance line, not influencing EBITA

### B/S

- TOMRA only hedges B/S items where exchange rate fluctuations could have P/L impact. Gains and losses on B/S hedging are recorded in accordance with IAS 21 and will normally not have P/L impact

# Financial highlights | Balance sheet and cash flow

	31 March		31 Dec
<i>Amounts in NOK million</i>	2021	2020	2020
<b>ASSETS</b>	<b>10,806</b>	<b>12,250</b>	<b>10,977</b>
Intangible non-current assets	3,737	4,226	3,846
Tangible non-current assets	2,263	2,638	2,371
Financial non-current assets	362	463	353
Inventory	1,571	1,943	1,492
Receivables	2,419	2,536	2,383
Cash and cash equivalents	454	444	532
<b>LIABILITIES AND EQUITY</b>	<b>10,806</b>	<b>12,250</b>	<b>10,977</b>
Equity	5,568	5,924	5,591
Lease liabilities	1,047	1,260	1,104
Interest-bearing liabilities	1,300	1,939	1,414
Non interest-bearing liabilities	2,891	3,127	2,868



## Cashflow from operations

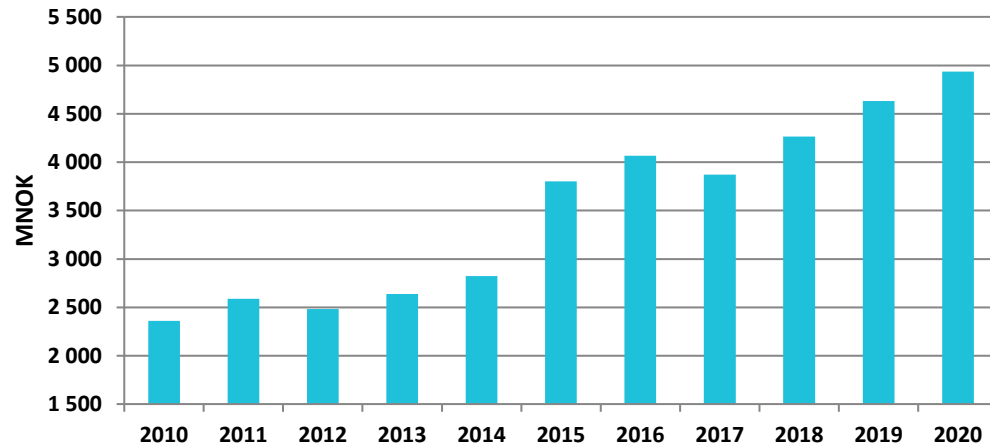
- Cash flow from operations of 269 MNOK in the first quarter 2021 (265 MNOK in first quarter 2020)

## Solidity and gearing

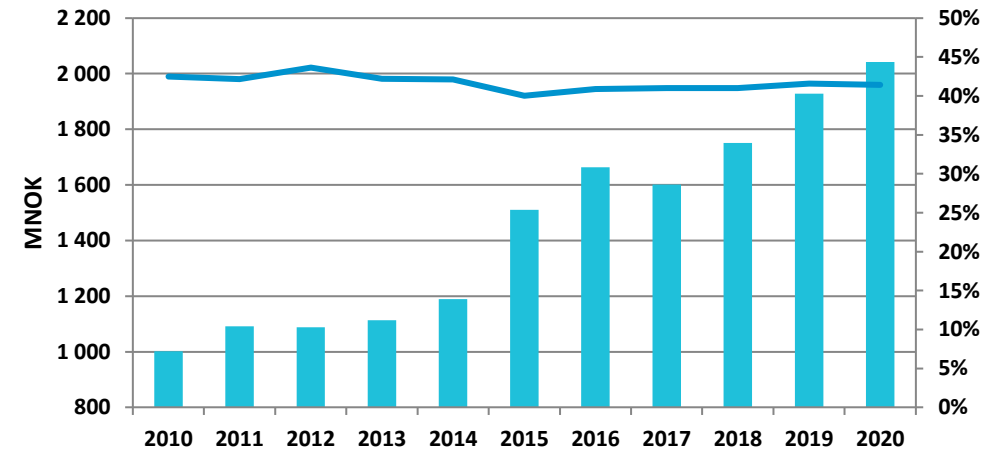
- 52% equity ratio
- NIBD/EBITDA (Rolling 12 months)
  - 0.5x without IFRS 16 / 0.9x including IFRS 16

# TOMRA Collection Solutions – segment financials

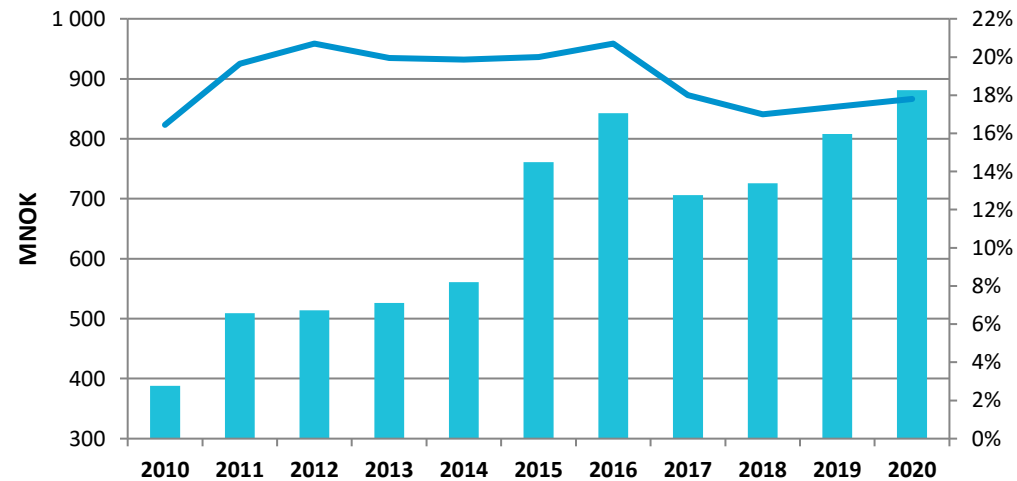
Revenues



Gross contribution and margin

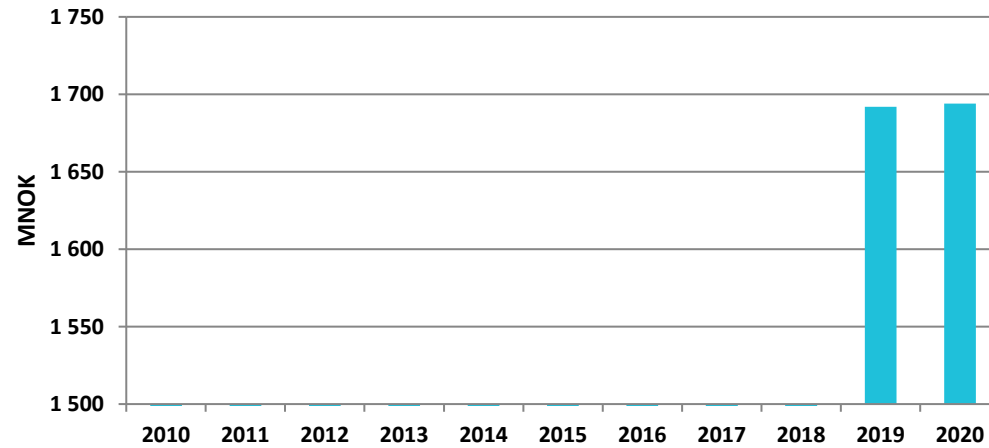


EBITA and margin

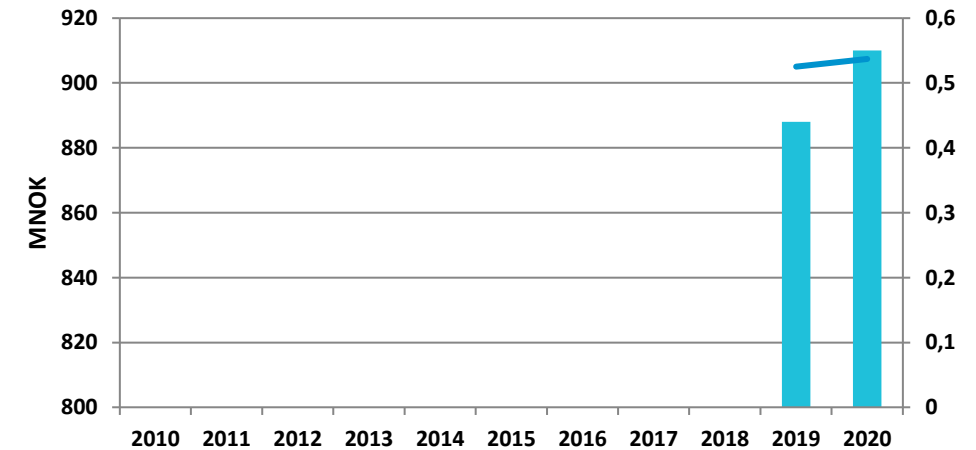


# TOMRA Recycling Mining – segment financials

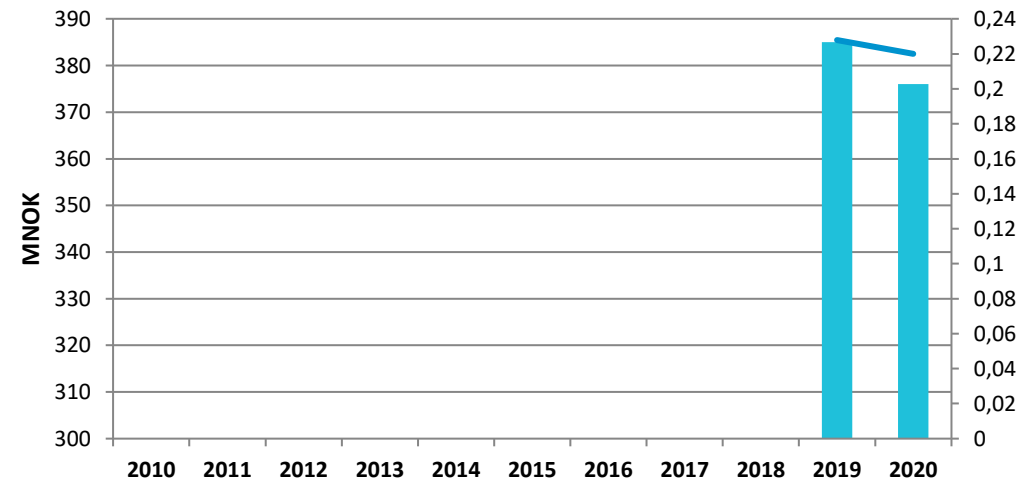
## Revenues



## Gross contribution and margin

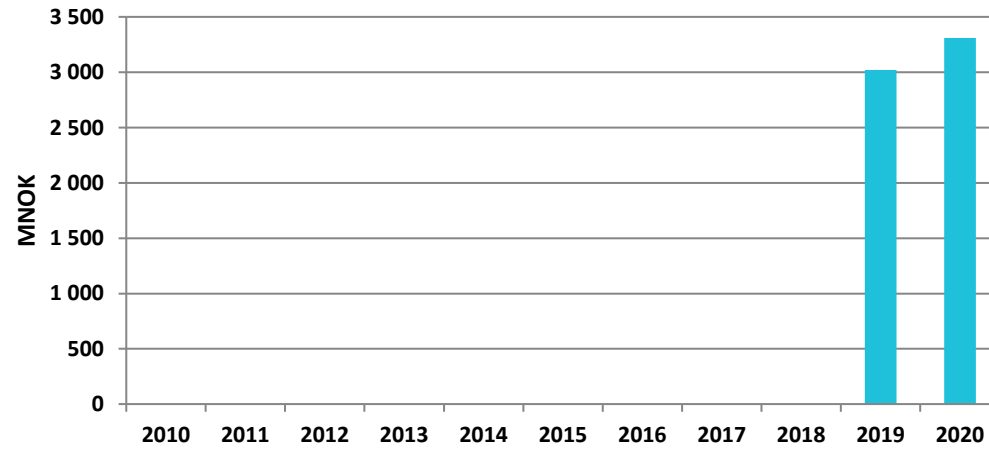


## EBITA and margin

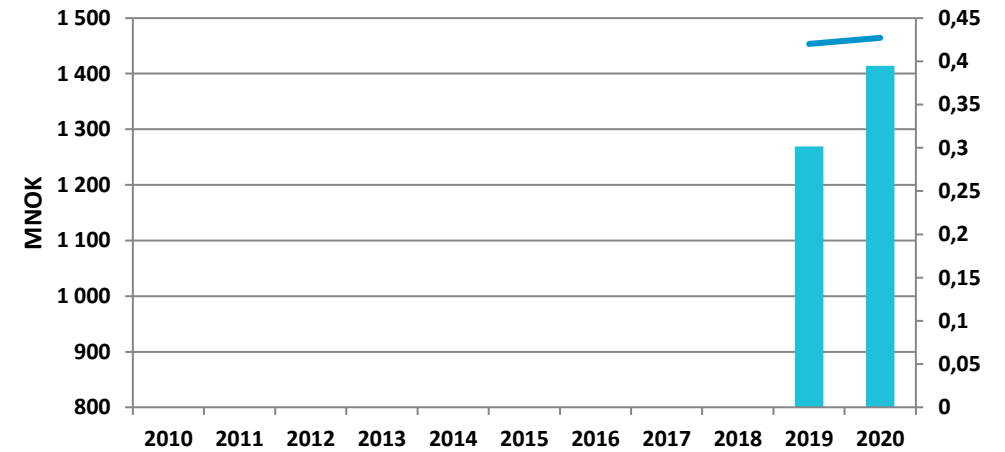


# TOMRA Food – segment financials

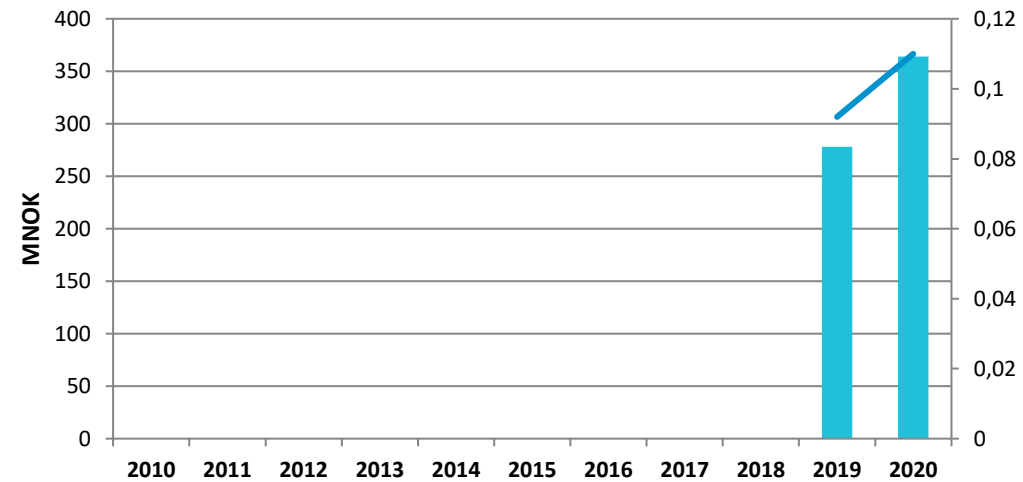
## Revenues



## Gross contribution and margin

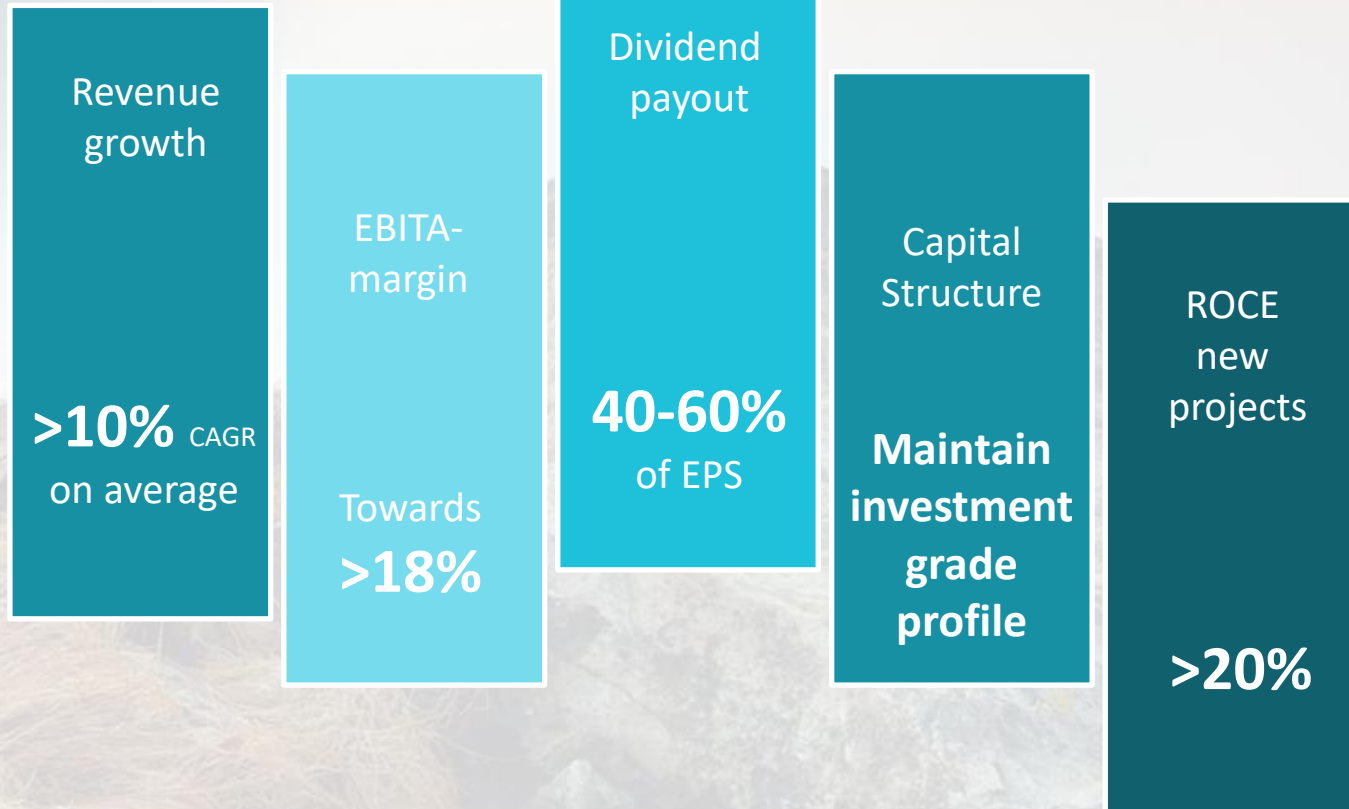


## EBITA and margin

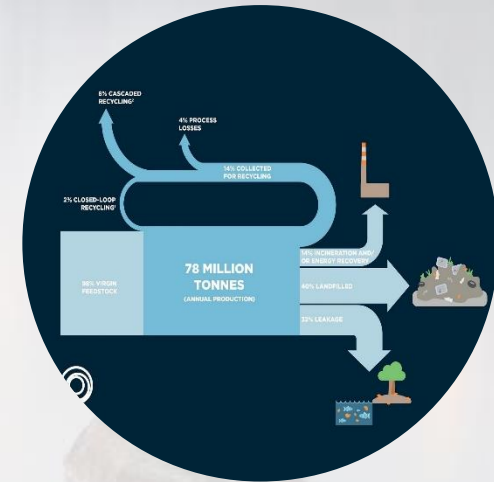




## Our ambitions 2018 - 2023



## Circular Economy



## Future of Food

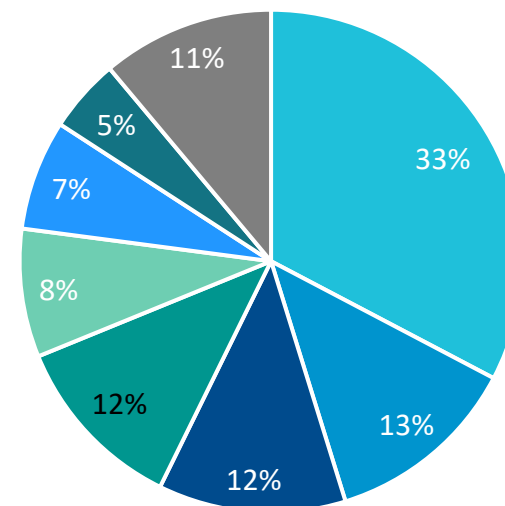


# Shareholder structure

## Top 10 shareholders as of 31 March 2021

1	Investment AB Latour	31 200 000	21,1 %	
2	State Street Bank and Trust Comp	11 706 227	7,9 %	(NOM)
3	The Bank of New York Mellon SA/NV	11 324 308	7,7 %	(NOM)
4	Folketrygdfondet	11 093 198	7,5 %	
5	J.P. Morgan Bank Luxembourg S.A.	6 966 382	4,7 %	(NOM)
6	Clearstream Banking S.A.	6 216 716	4,2 %	(NOM)
7	CACEIS Bank	6 044 197	4,1 %	(NOM)
8	Citibank, N.A.	4 950 907	3,3 %	(NOM)
9	The Bank of New York Mellon	4 743 188	3,2 %	(NOM)
10	JPMorgan Chase Bank, N.A., London	4 616 932	3,1 %	(NOM)
	<b>Sum Top 10</b>	<b>98 862 055</b>	<b>66.8%</b>	
	Other shareholders	49 158 023	33.2%	
	<b>TOTAL (10.833 shareholders)</b>	<b>148 020 078</b>	<b>100.0%</b>	

## Shareholders by country



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