


A background graphic consisting of a network of blue dots connected by thin lines, forming a complex, interconnected structure that resembles a molecular or data network. The dots are of varying sizes and are distributed across the frame, with a higher density in the lower right quadrant.

# 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 Solutions for optimal resource productivity



## 2 Leading market position – fit for growth

Collection Solutions  
**#1**

Food Sorting  
**#1**

Recycling Sorting  
**#1**

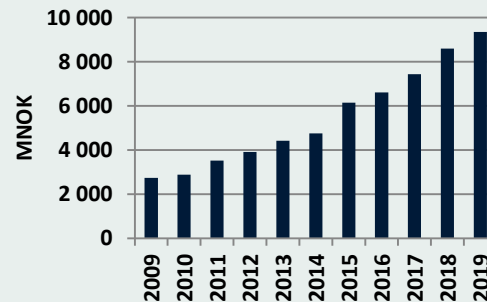
Mining Sorting  
**#1**

## 3 Pioneer in sensor-based and digital technologies



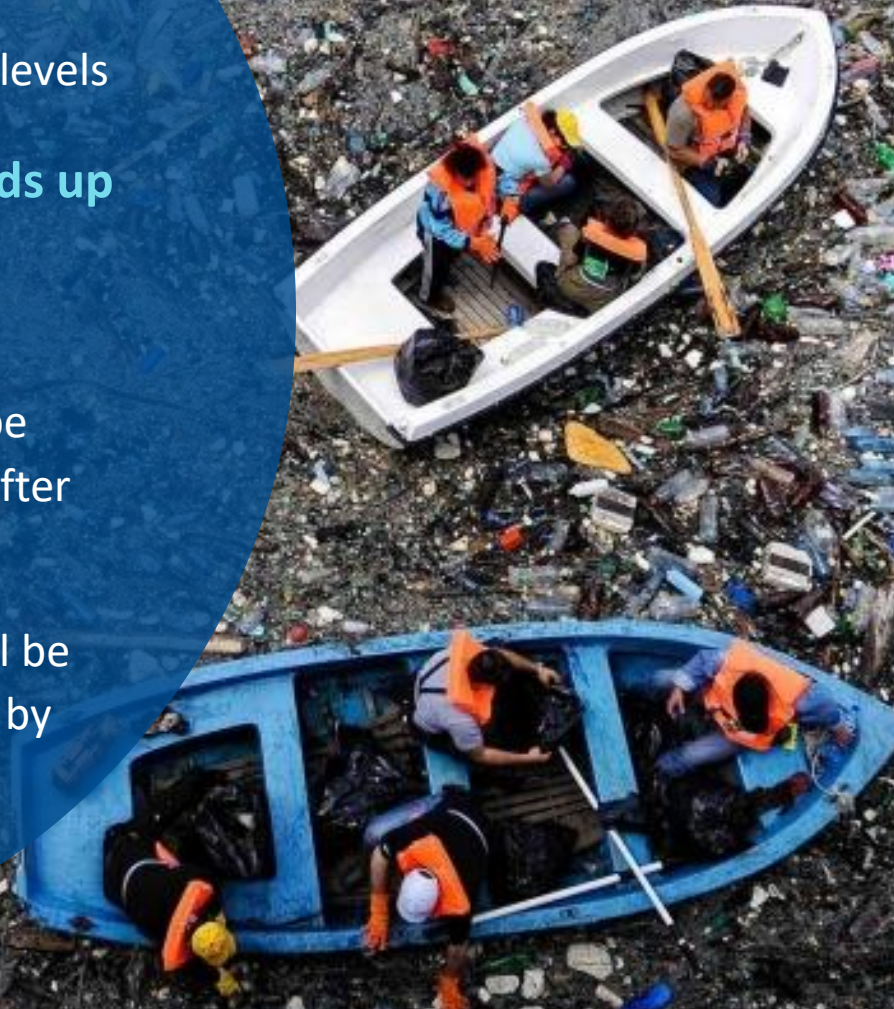
## 4 Strong financial performance, people & culture

Revenues

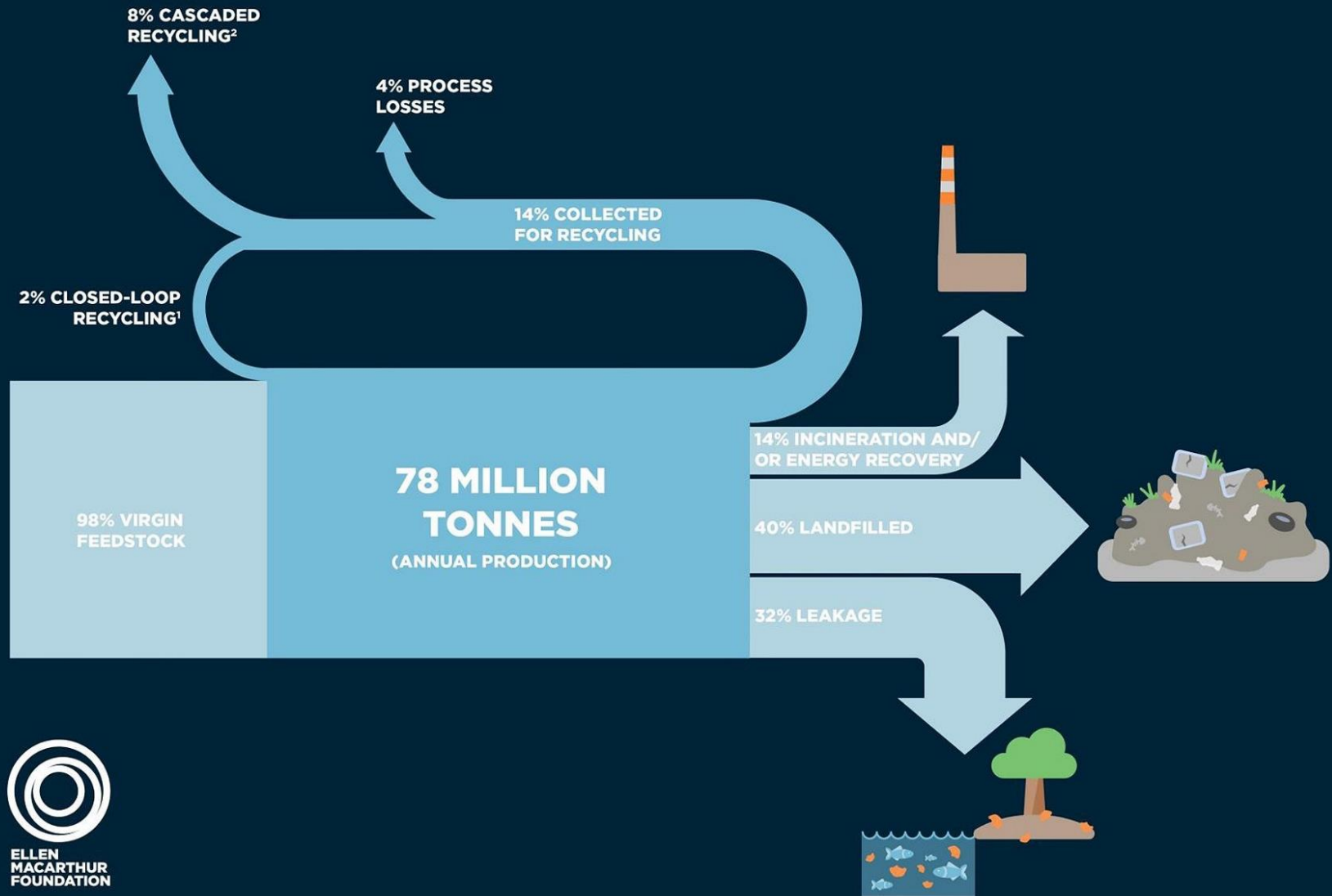


# DID YOU KNOW?

- 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



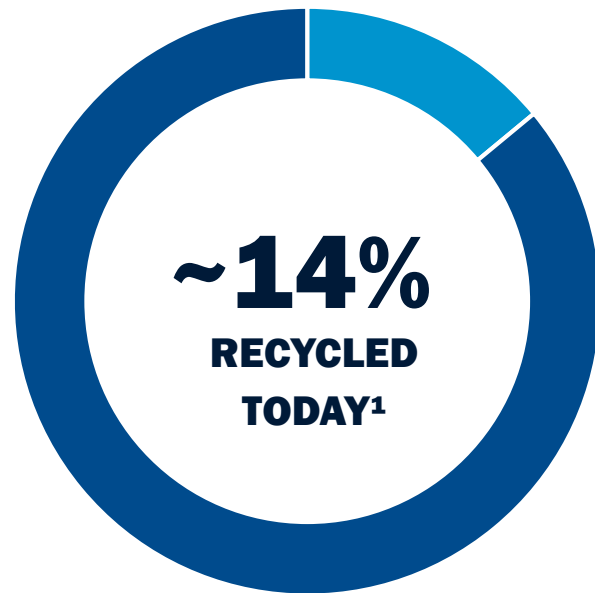
Only 2% of the planet's annual plastic packaging production is reused for the same/similar products



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

# Significant untapped potential to reuse good 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

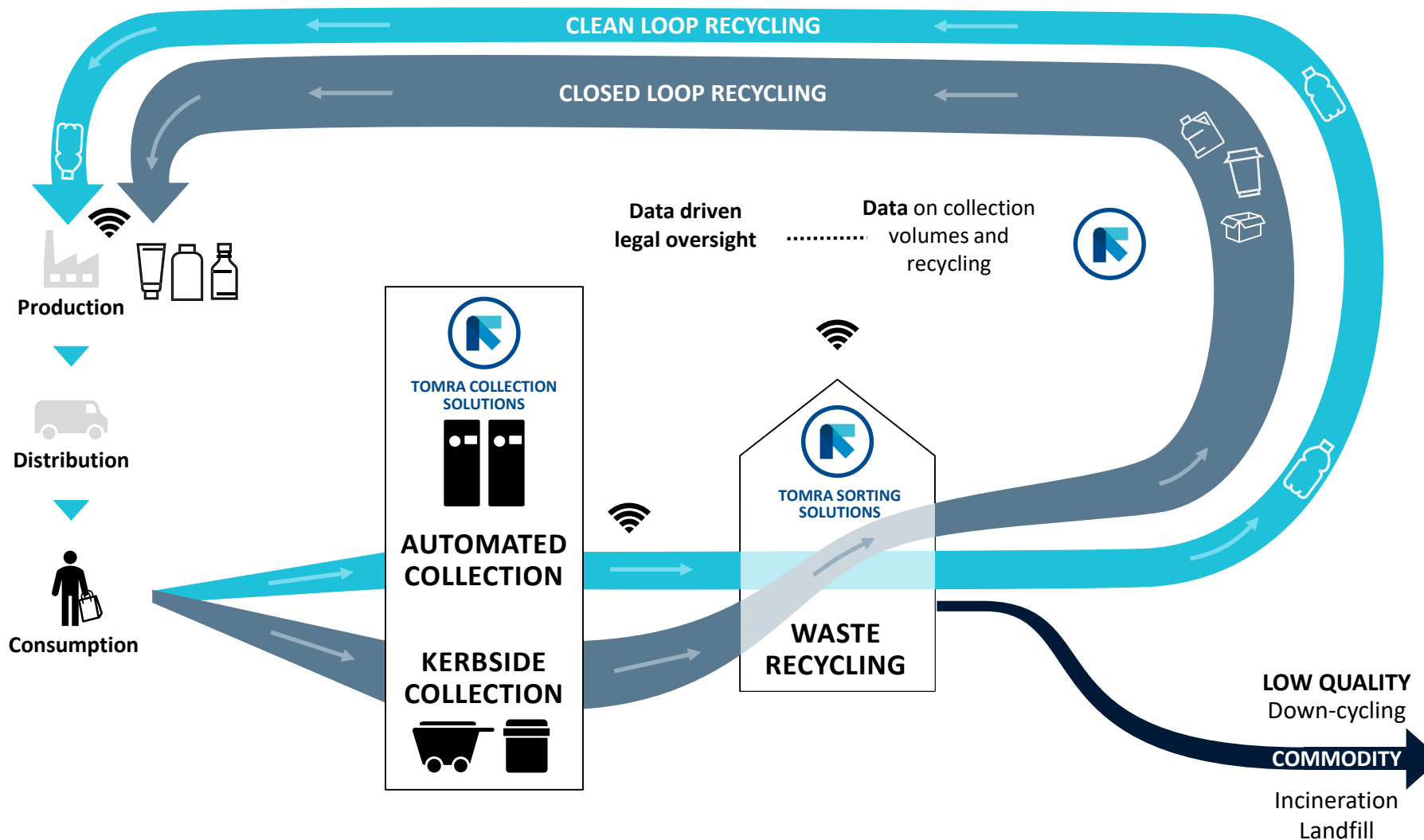
## PAPER



**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% fibre 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

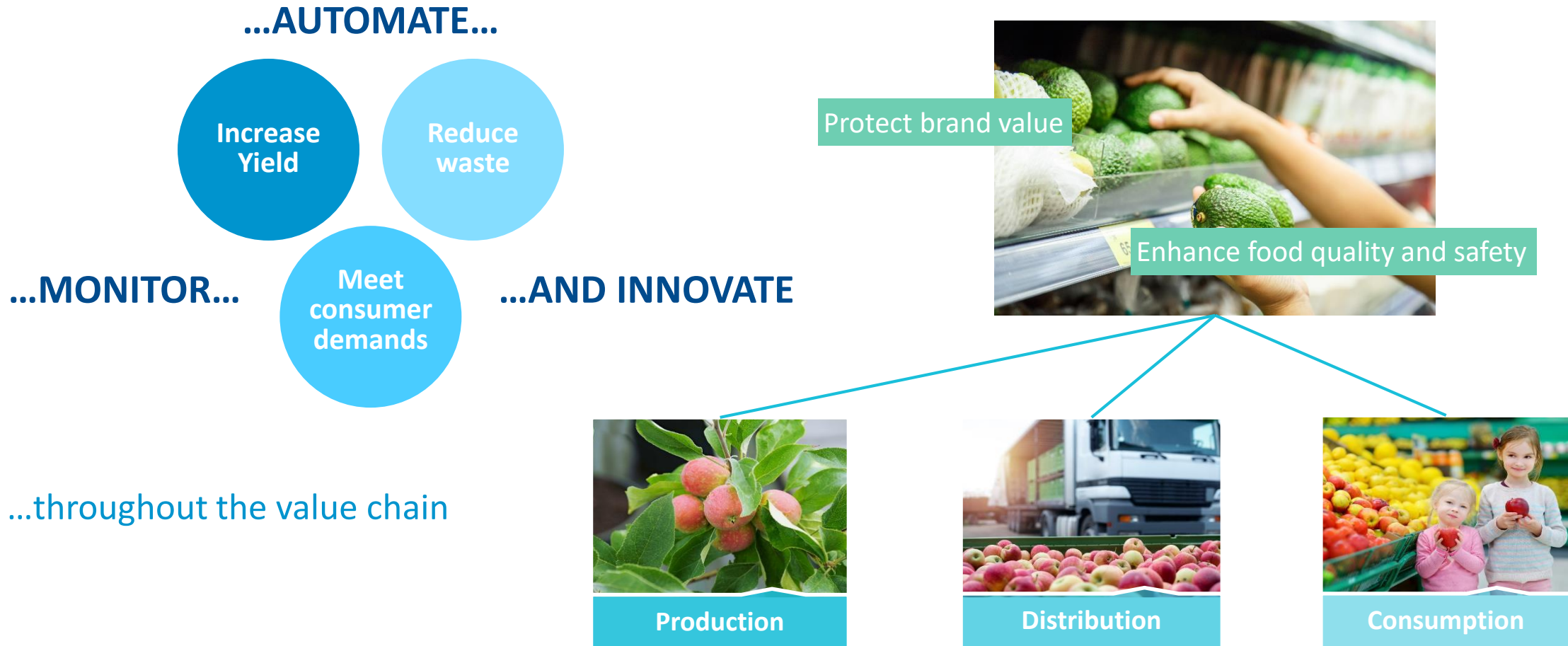


# DID YOU KNOW?

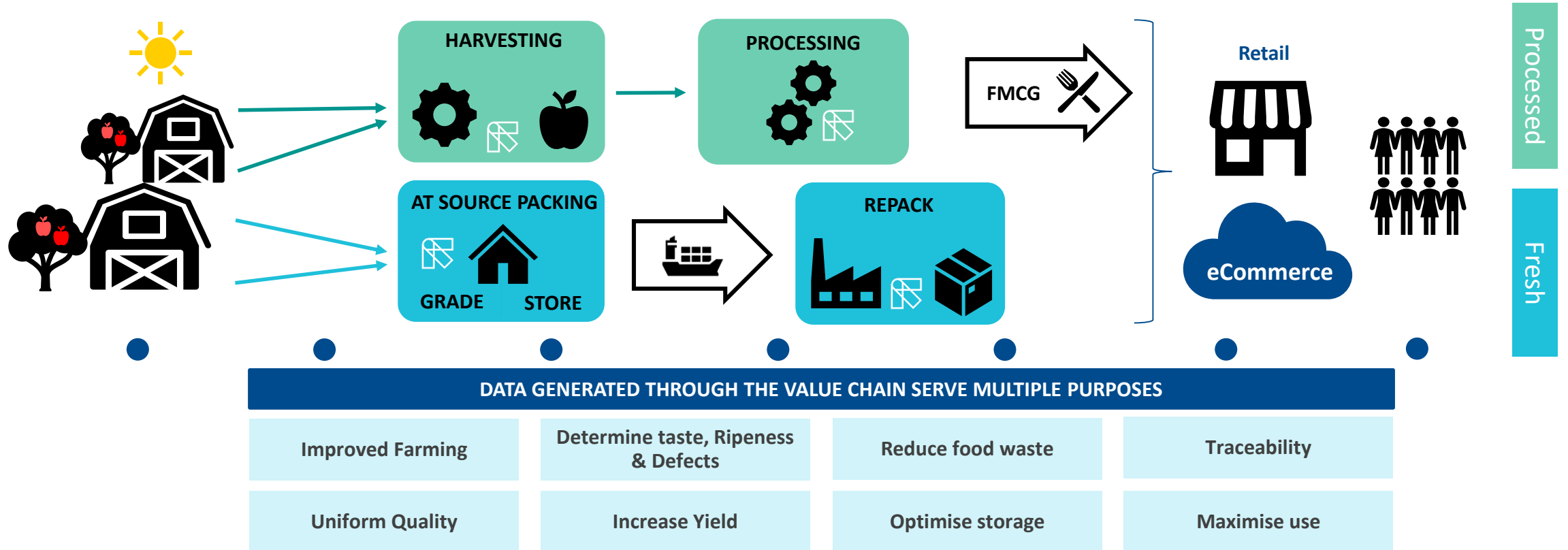
- By 2050, a global population of **9.8 billion** will **require 70%** more food than is consumed today
- We are currently **wasting 33%** of global food production
- The food industry accounts for around **10%** of global GDP
- Agriculture accounts for **20%** of global greenhouse gas emissions

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

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



# TOMRA to play a difference in the FUTURE OF FOOD production



# 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 ability into sustainability»

**At TOMRA, sustainability is at the core of everything we do.** Our collection and sorting technologies have a significant positive impact on the world around us, helping to address major environmental challenges like climate change and plastic waste with innovative solutions for a greener tomorrow.

**As a company we are also 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.

**Our commitment to sustainability is closely linked to our vision of “leading the resource revolution”.** I believe that in order to be successful we must leverage our sustainability impact to create high value for our customers, to enhance competitiveness, and to attract and retain talent. Furthermore, we must collaborate and use our technology and expertise to influence sustainability impact among partners and beyond our direct market reach.



*S. Ranstrand*

Stefan Ranstrand  
President and CEO Tomra Group

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

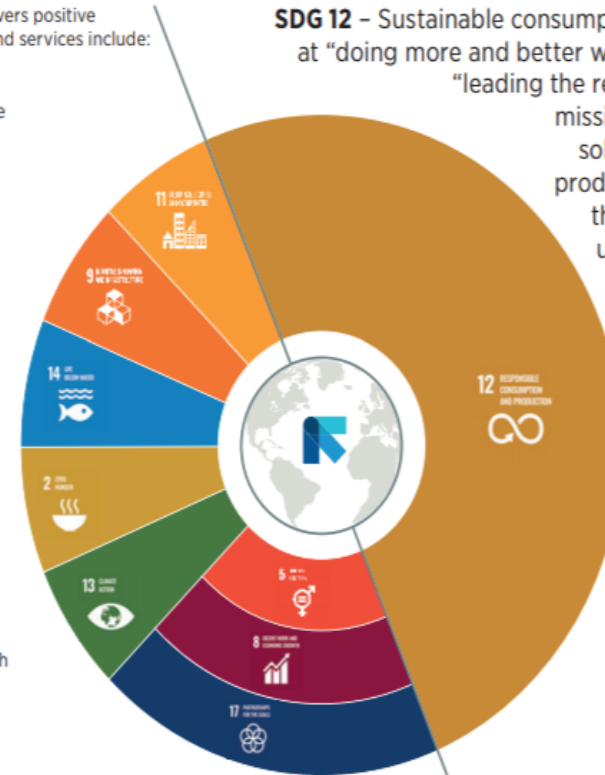
**SDG 11:**  
Sorting solutions for sustainable waste management.

**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 resource, 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.”

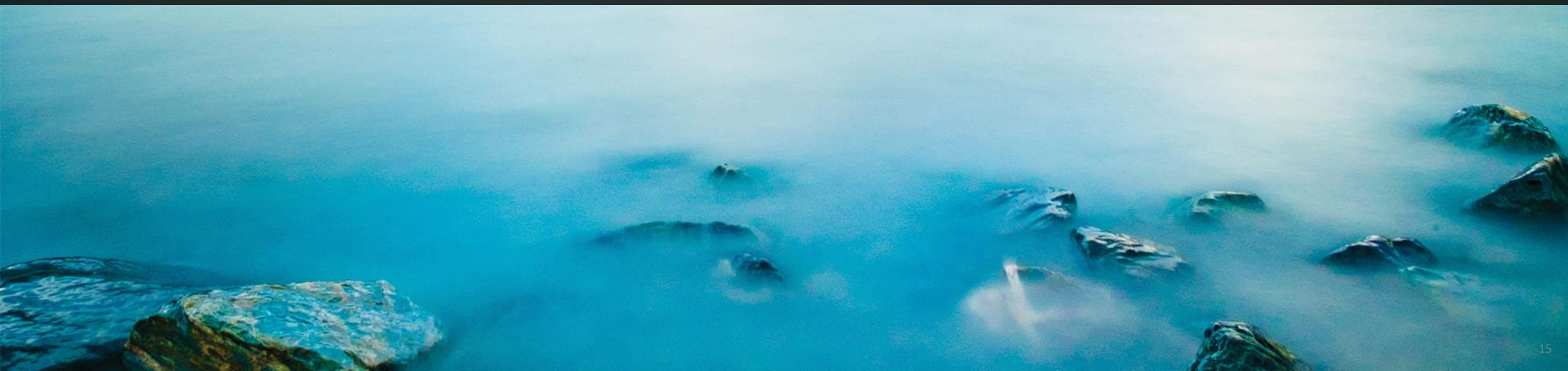
From purpose into profits and profits into progress, TOMRA is **transforming** what it means to be resourceful



- Our solutions, in use around the globe, helped keep **~17 millions of tons of CO<sub>2</sub>** from being released into the atmosphere in 2019
- **More than 40 bn used beverage containers are captured every year** through our reverse vending machines
- Our steam peelers process **~15 million tons of potatoes per year with a 1% yield improvement** over other alternatives
- **~715,000 tons of metal are recovered** every year by our metal-recycling machines



# TOMRA AT A GLANCE



4500+

EMPLOYEES  
GLOBALLY

Publicly listed on Oslo Stock Exchange (OSEBX: TOM)



9.3

BILLION NOK  
REVENUES IN 2019



FOOD



RECYCLING



MINING



REVERSE VENDING

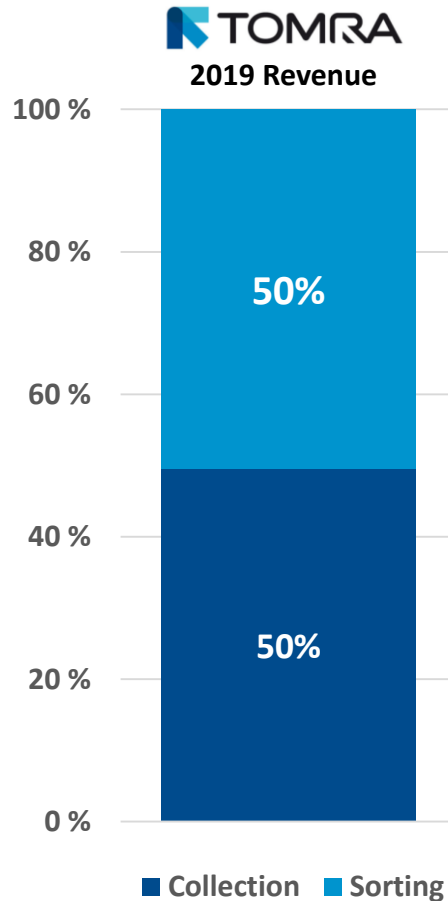


MATERIAL RECOVERY





# Creating value through two strong business areas

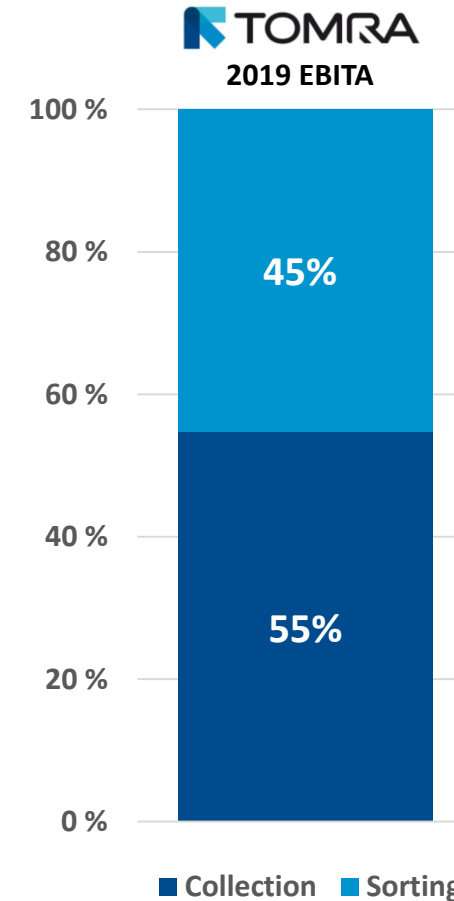


- High growth
- High margins
- Medium cyclicity

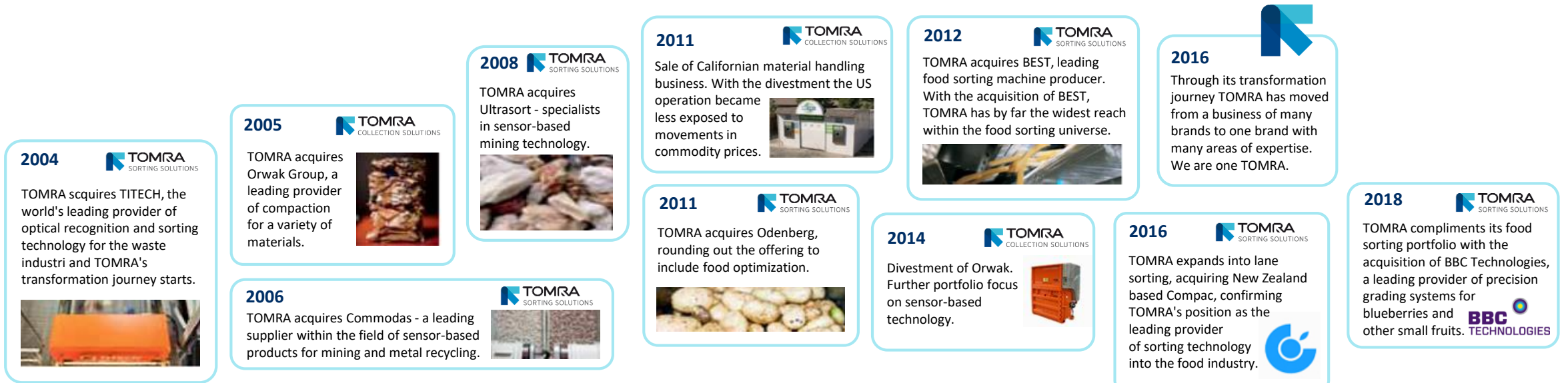
Technology leadership - sustainable business



- Stable
- High margins
- Low cyclicity



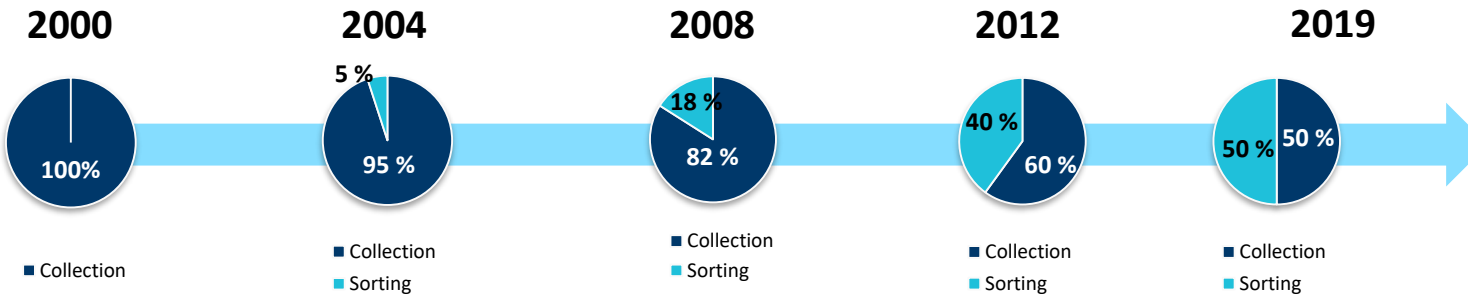
# The TOMRA transformation journey



FROM:



Helping the world recycle



TO:



LEADING THE RESOURCE REVOLUTION

# TOMRA's two business areas



## FOOD

Share of '19 sales	~32%
Employees	1,445
Customers	Food growers, packers and processors
Market share	<b>Bulk: ~25%    Lane: ~25%</b>

## RECYCLING

Share of '19 sales	~16%
Employees	260
Customers	Material recovery facilities, scrap dealers, metal shredder operators
Market share	<b>~55-60%</b>

## MINING

Share of '19 sales	~2%
Employees	80
Customers	Mining companies
Market share	<b>~40-50%</b>

## TOMRA SORTING GROUP FUNCTIONS & SHARED STAFF

Employees	250
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## REVERSE VENDING

Share of '19 sales	~39%
Employees	1,905
Customers	Grocery retailers
Market share	<b>Over 70%</b>

## MATERIAL RECOVERY

Share of '19 sales	~11%
Employees	590
Customers	Grocery retailers and beverage manufacturers
Market share	<b>~60% in USA (markets served)</b>



# Installed base worldwide



## REVERSE VENDING

Nordic	~15,100
Germany	~29,500
Other Europe	~15,000
North America	~16,900
Rest of the world	~7,600

**TOTAL ~84,100**



## RECYCLING

EMEA	~4,500
Americas	~990
Asia	~940
Other	~30

**TOTAL ~6,460**

## MINING

Europe	~20
US / Canada	~46
Australia	~10
South Africa	~46
Other	~41

**TOTAL ~163**

## FOOD BULK

EMEA	~3,400
Americas	~3,025
APAC	~780

**TOTAL ~7,205**

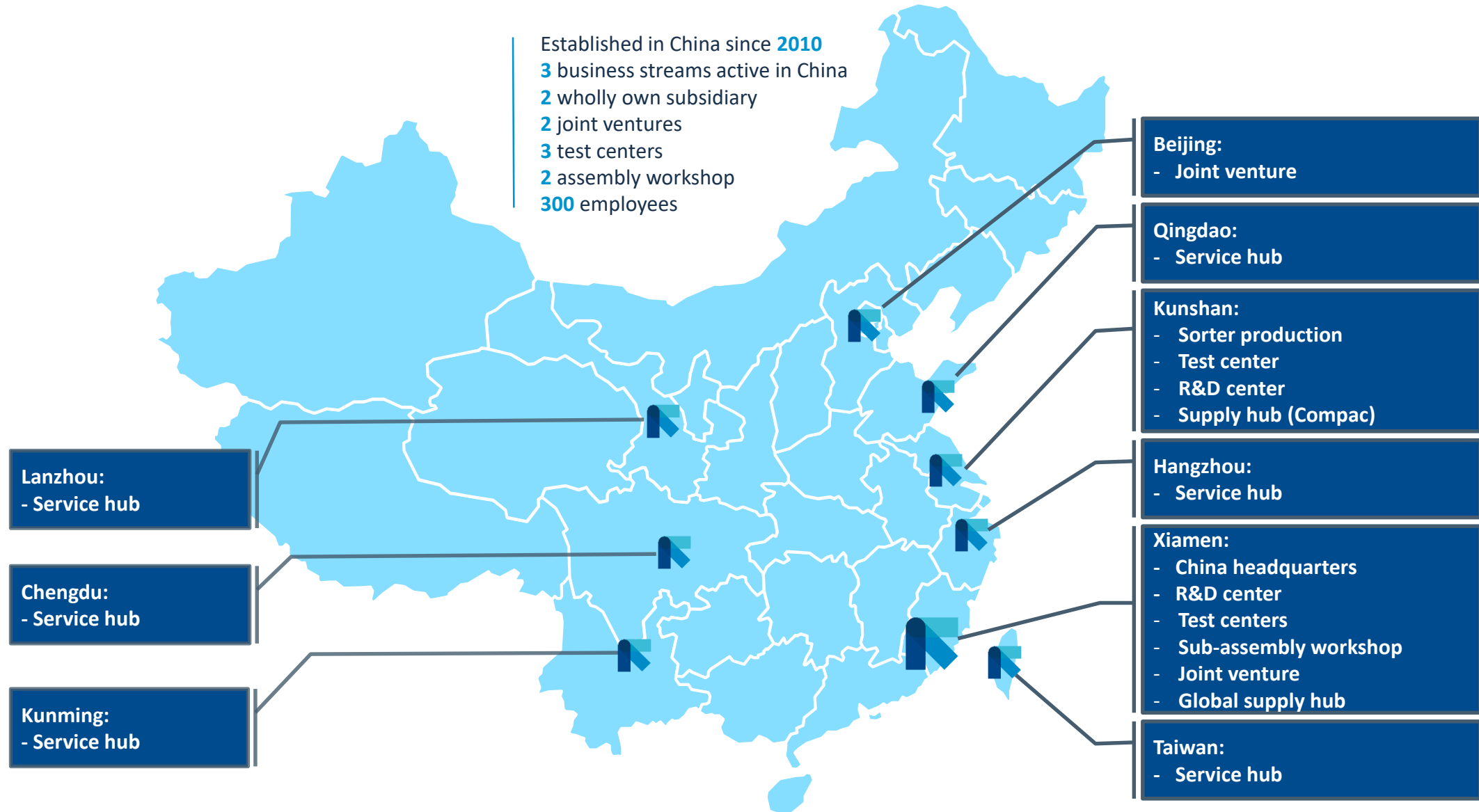
## FOOD LANE

EMEA	~1,580
Americas	~1,220
APAC	~950

**TOTAL ~3,750**

Food Lane includes Compac and BBC

# Strengthen presence in China



A young boy and a man are shown on a rooftop, actively collecting plastic waste. The boy is in the foreground, wearing a dark blue t-shirt with 'JAKO' on the chest and grey shorts, carrying a large clear plastic bag filled with various plastic bottles and cans. The man is behind him, also in a dark blue t-shirt, holding a large clear plastic bag and a water bottle. The rooftop has a metal railing and a concrete surface. The background shows a building with windows and a clear sky.

# 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's a desire for change...



**Consumer** demand for responsible plastic use options



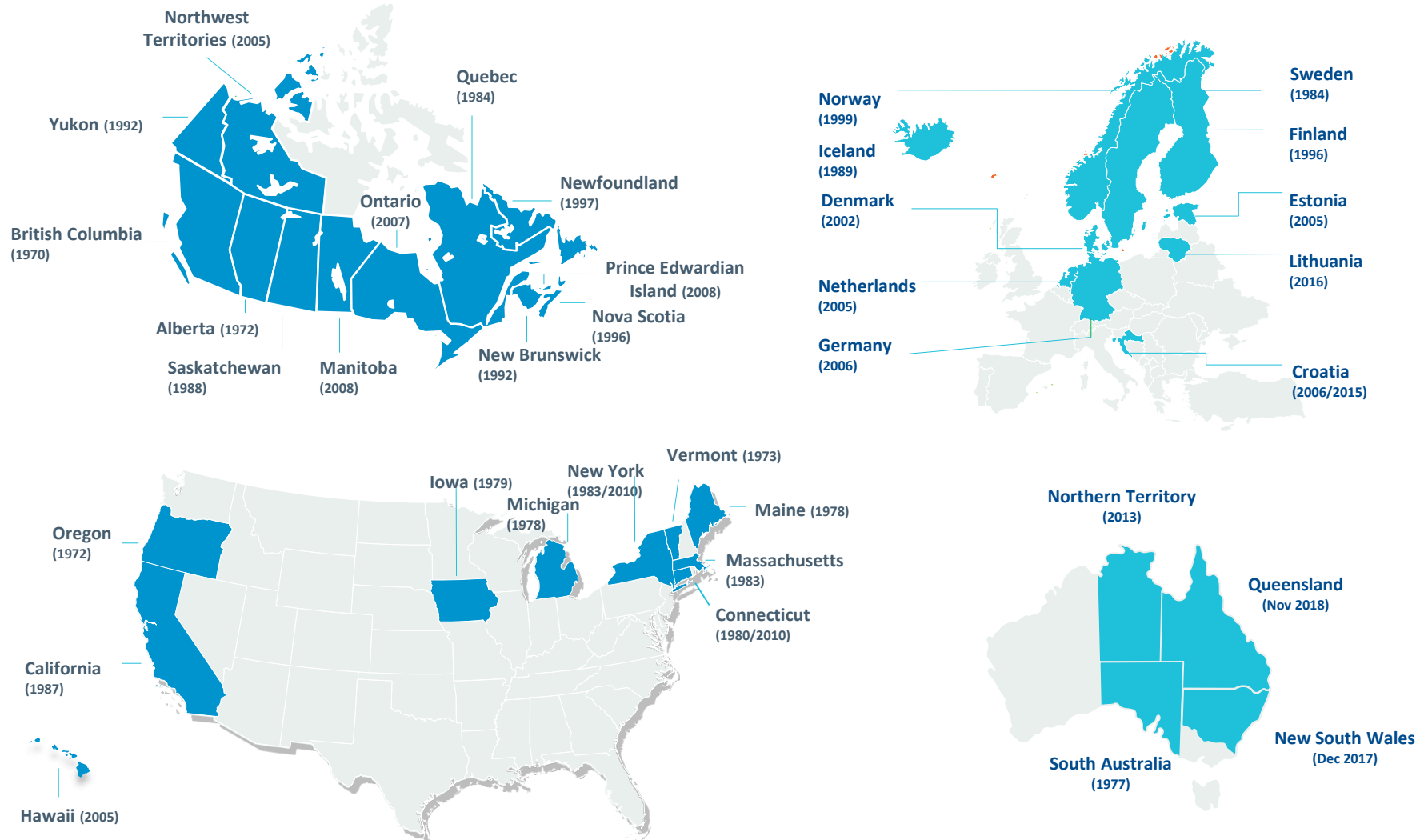
**Legislative** push for new plastic waste strategies



**Market** pull from large brand owners and 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

— Recently approved  
— In progress

**North America:**  
Possible expansion of existing deposit systems

**Scotland:**  
Commitment to a Container Deposit Scheme announced in party program

**England:**  
Announced plans for a deposit scheme to reduce plastic pollution. Ongoing consultation

**Australia:**  
NSW introduced deposit from December 2017  
QLD introduced deposit from November 2018  
Western Australia plans to introduce in 2020

**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.



# EU enforcing its leadership role on environment

Targeting the most littered plastic items

Some products to be banned, others less used

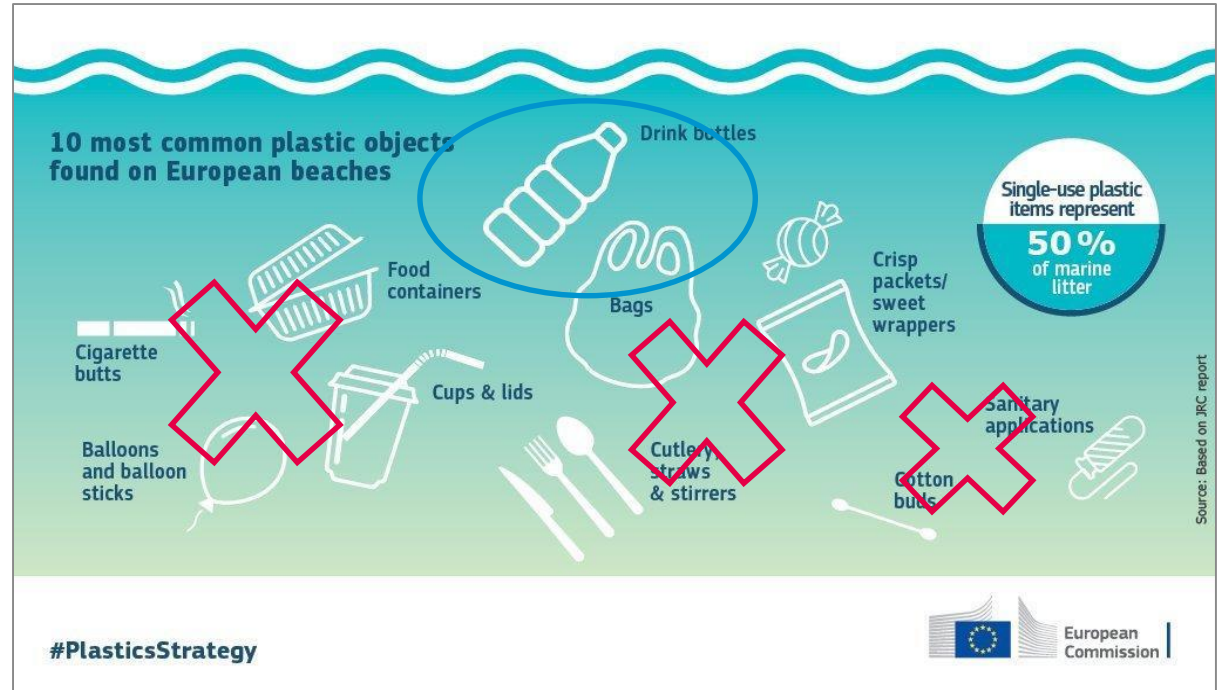
Separate measures for plastic drinks bottles

**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

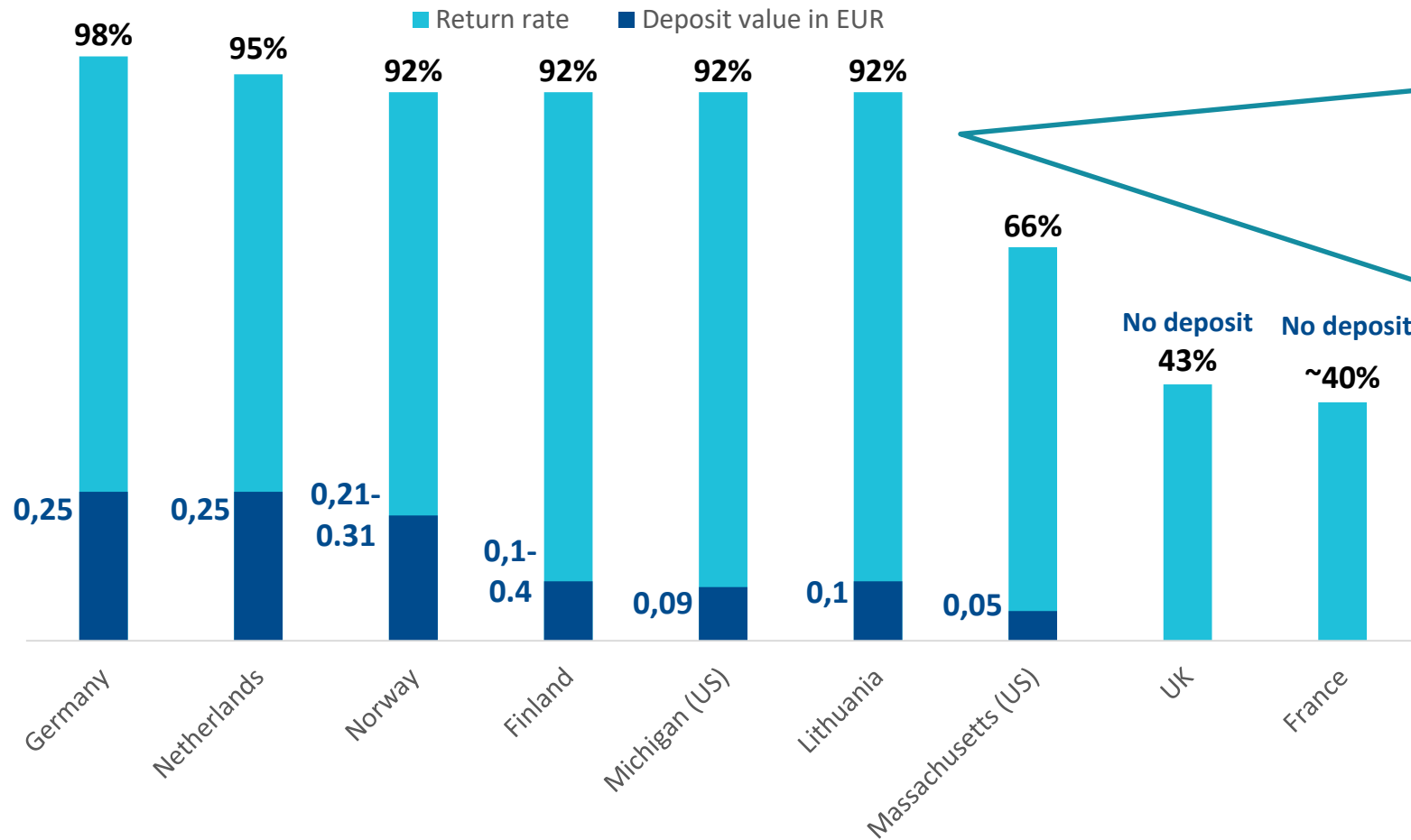


Extended producer responsibility

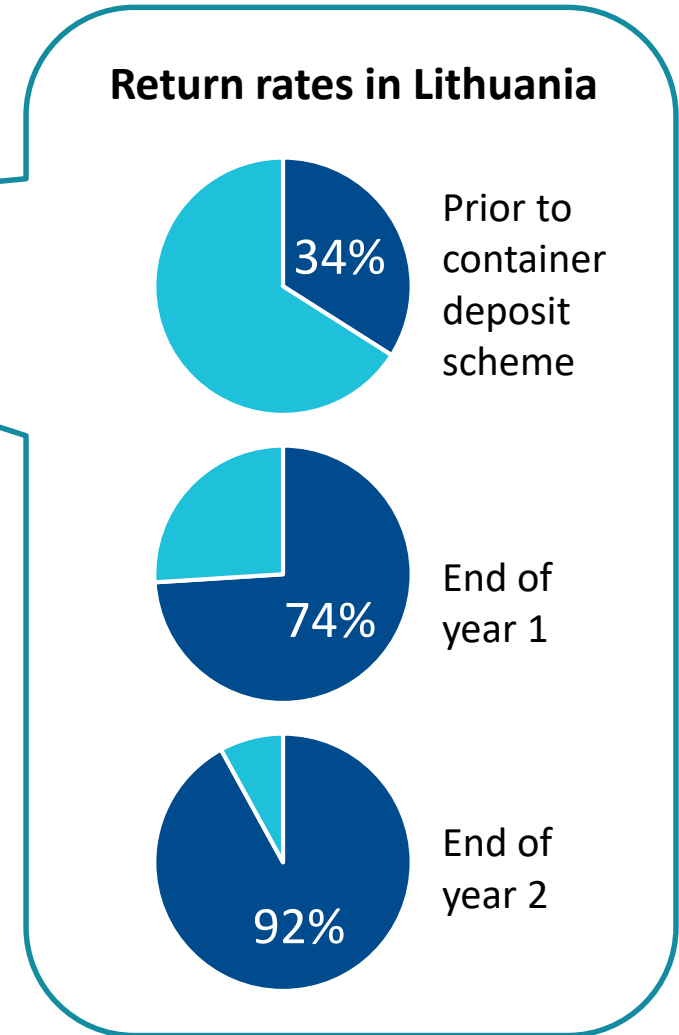
Collaboration across plastics value chain

# A proven solution to achieve high return rates

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

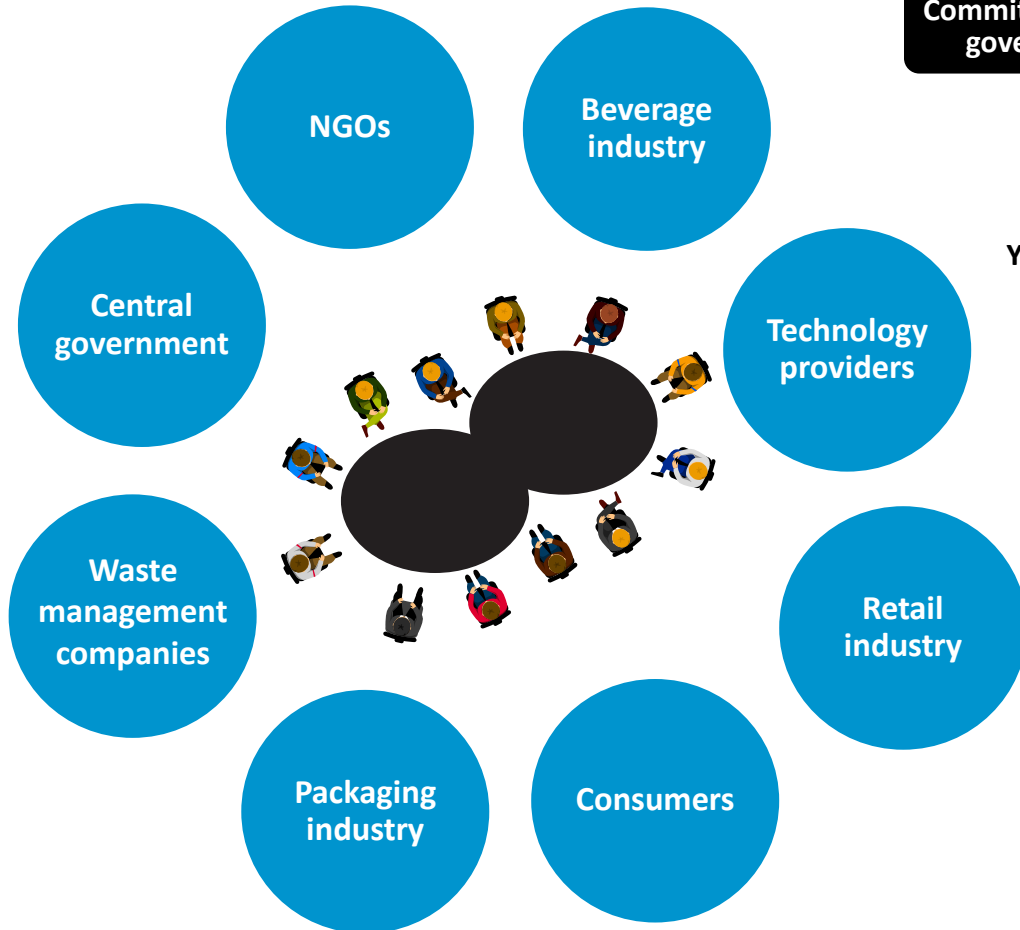


\*Deposit values converted to EUR for comparison purpose

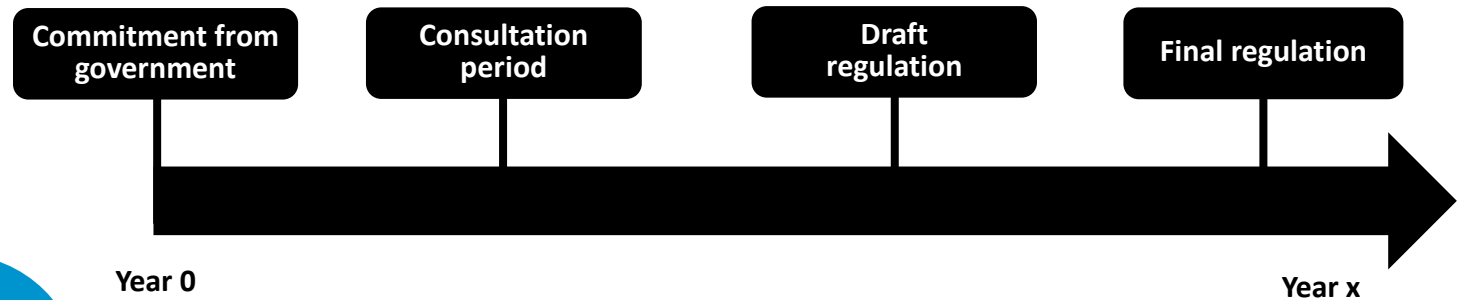


# Designing a deposit scheme – lengthy process from idea to law

## Many stakeholders around the table



## Illustrative legislation process



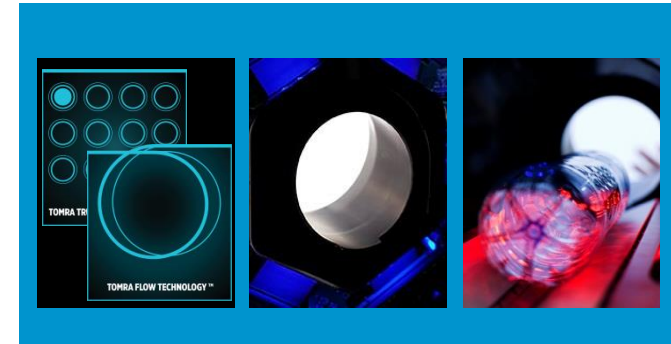
## Many questions to address:

- Types of material and product included
- Measurement of success and effectiveness
- Deposit value
- Participants and their role
- Financing of the scheme
- Deployment of infrastructure and logistics
- Fraud prevention
- System regulation and monitoring

# Elements of a modern reverse vending system



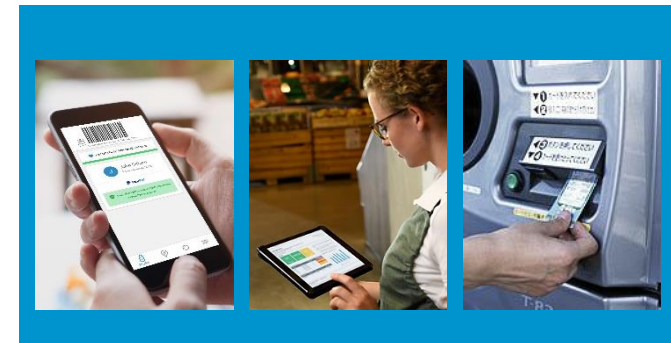
**User communication**



**Recognition system**



**Sorting & processing**



**Data administration**

# Key market and consumer trends drive structural changes...

## CONSUMER TRENDS



Bag drop solutions, reverse logistics from e-commerce

## RETAILER TRENDS



Bigger chains but smaller stores, self-service

## MATERIAL TRENDS



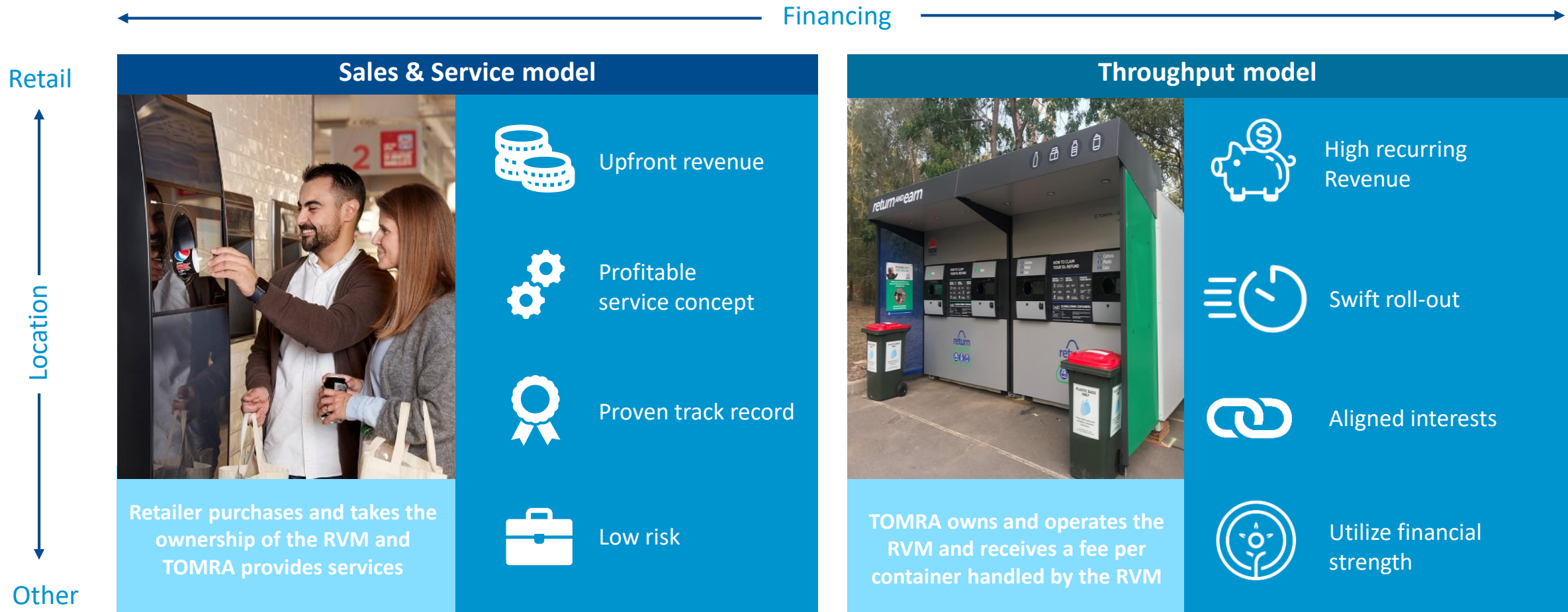
Biodegradable bottles

## STAKEHOLDER TRENDS



Beverage producers more proactive to set the scene

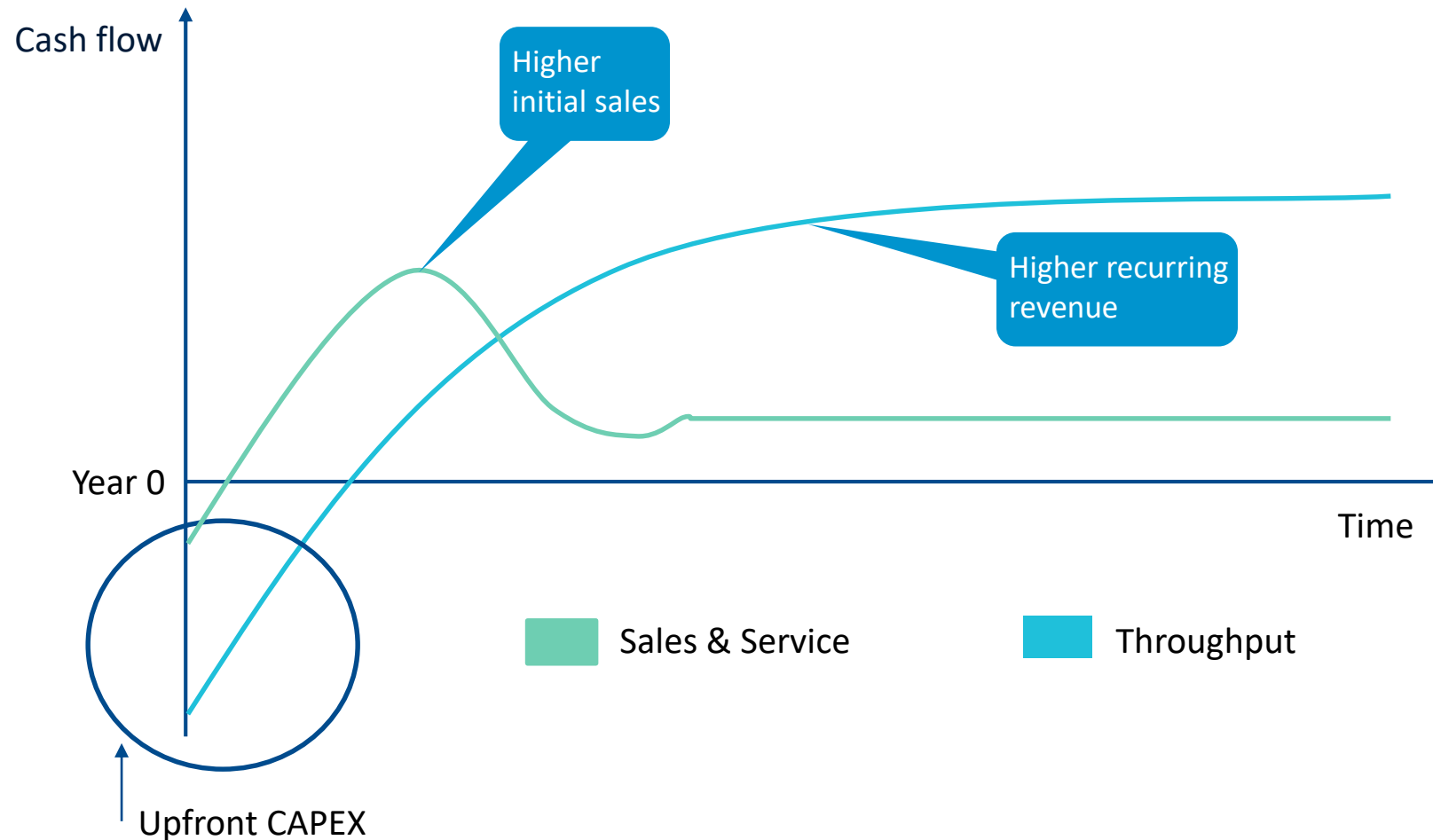
# ...reflected in shifting business models and stakeholders





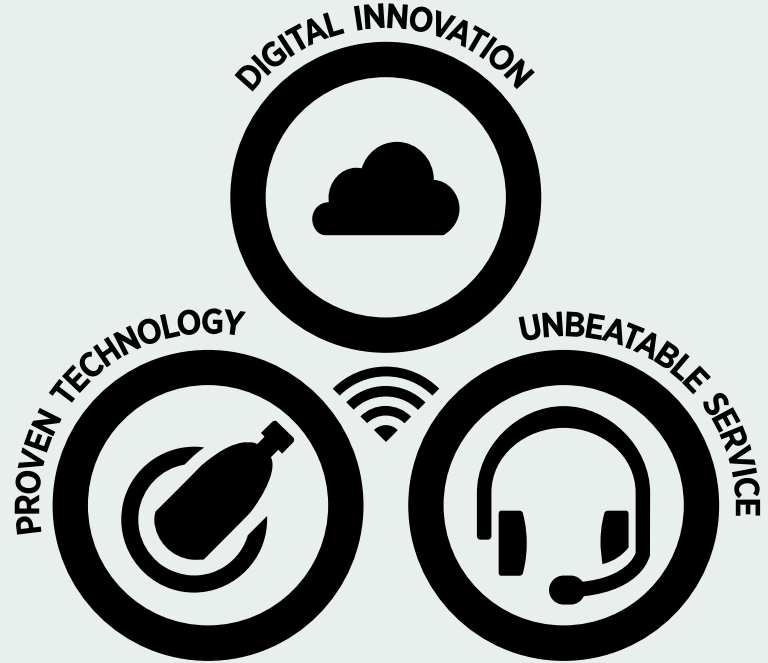
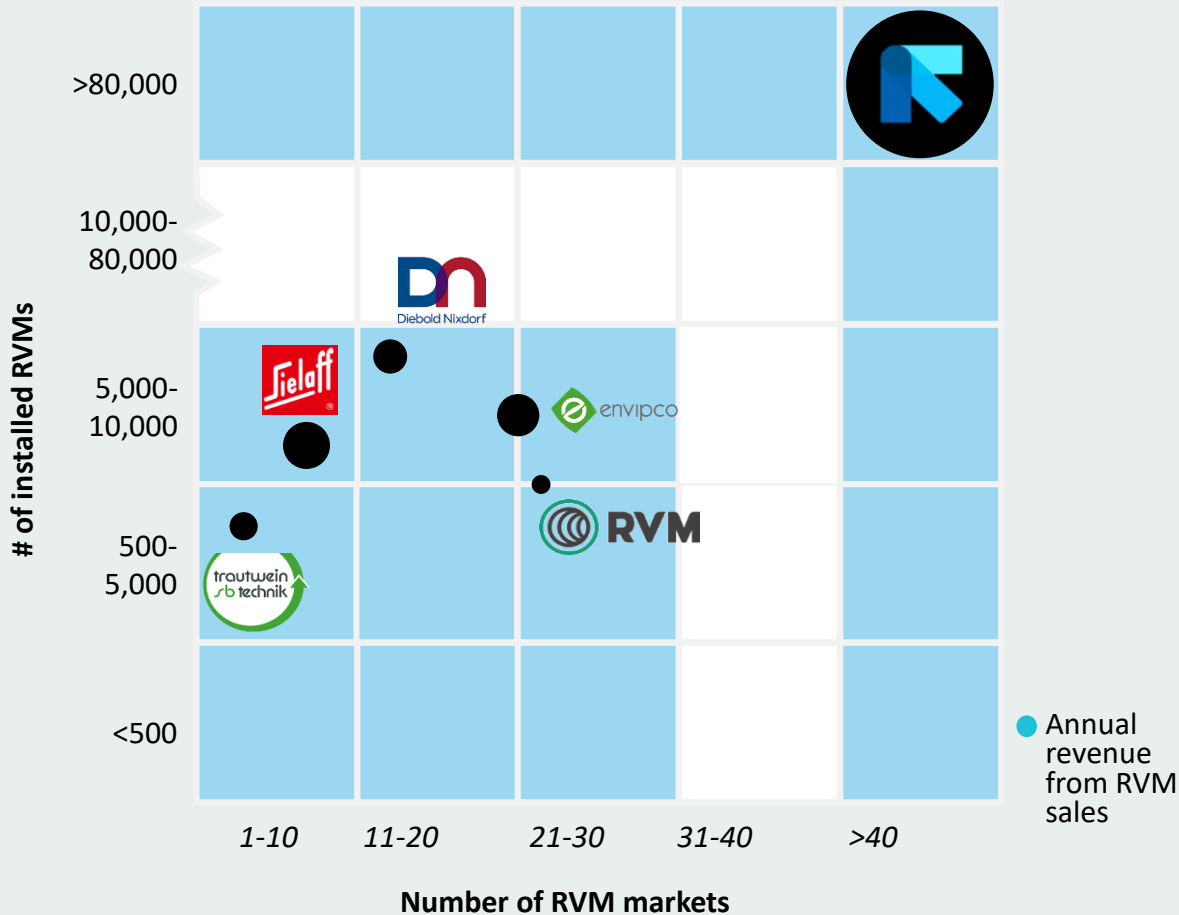
# Main differences between the two business models

## Illustrative cash flow profiles per machine



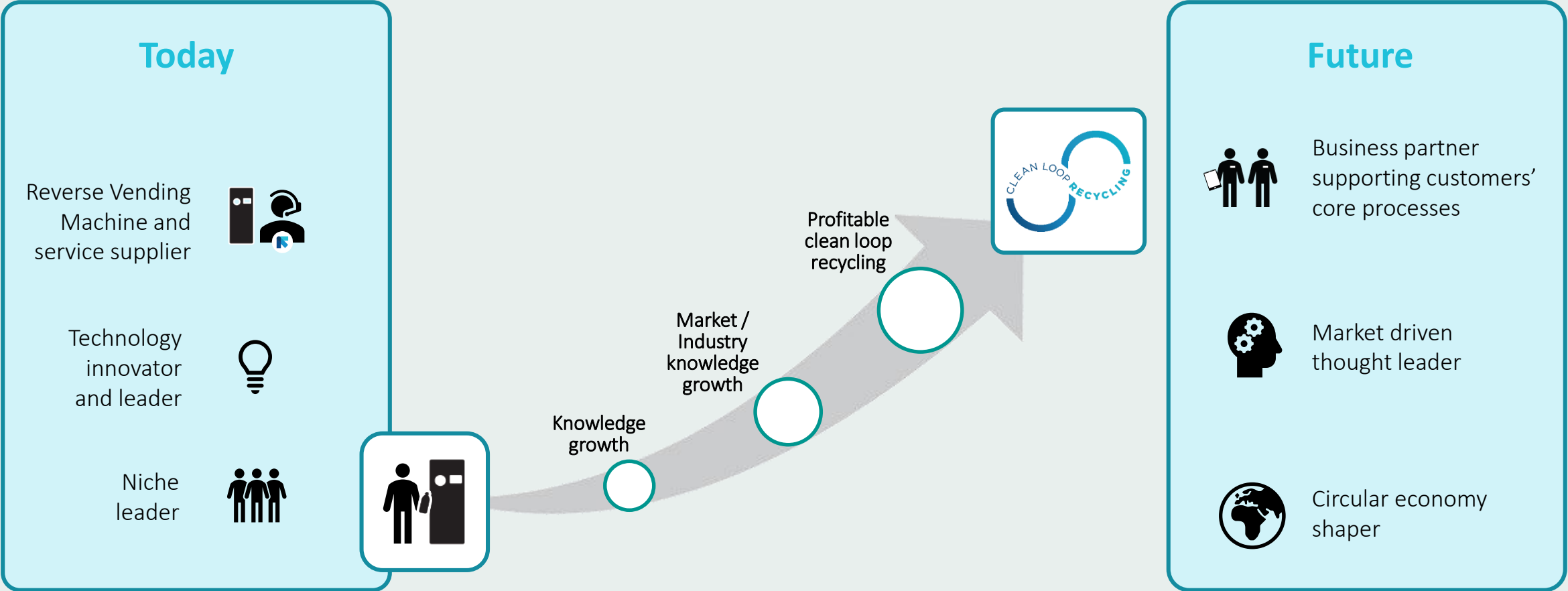
- Typically fewer machines per capita in throughput markets
- Higher CAPEX needs in a throughput model but normally also higher NPV
- Uncertainties around timing and design of each new container deposit scheme can have significant impact on the cash flow profile

# Undisputed market leader within reverse vending technology



**The smarter TOMRA system.**

# Moving from a reverse vending machine provider to a global frontrunner within clean loop recycling



# Strong competitive advantages and growth focus

## KEY STRENGTHS



Product and service leadership



People to support the growth



Production capacity and supply chain



Strong brand awareness



Efficient new market entry



Financial strength to support throughput business models

## PLAYING FIELD

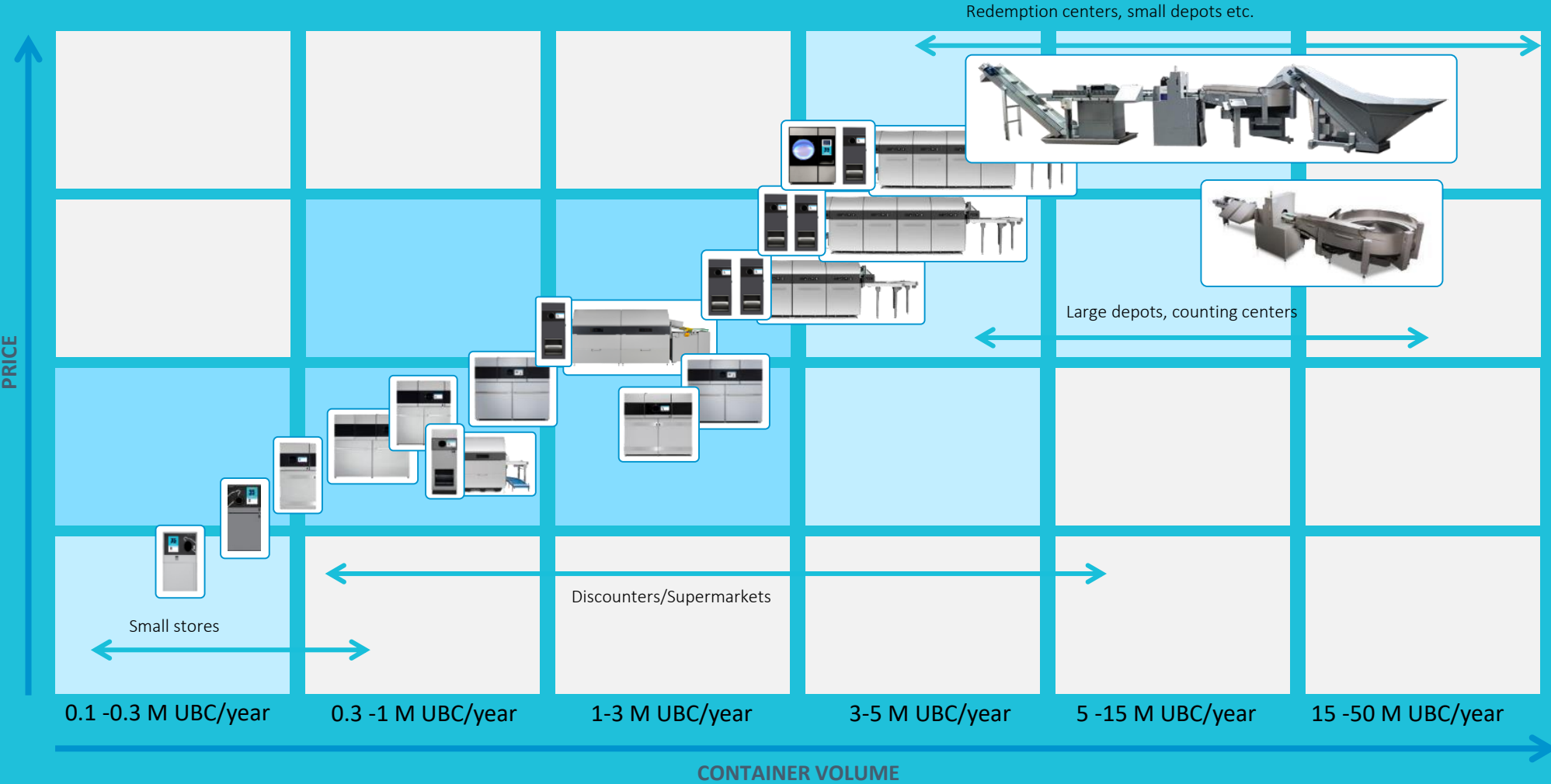


BASE MARKETS



GEOGRAPHICAL EXPANSION

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



# Strengthen our customers' competitive edge with our superior digital platform



TOMRA Productivity Gain



API/Data System Integration



Consumer Engagement



Retail Productivity Gain

Best guest  
experience

**IOT PLATFORM**

# Engage consumers to drive volume in throughput markets

Deliver a convenient and engaging recycling experience for consumers that increase the participation and drive volume through our installations.



Partner with relevant players



Facilitate and educate



Modernize and enhance the consumer journey



Share stories and inspire change



Drive community engagement



Keep track of your recycling rewards with the myTOMRA app.



















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follow us to stay in the Loop



# A dynamic organization catered for growth

 <p>Products and services</p>	<p><b>FROM</b></p>  <p>Machine centric</p> <p><b>TO</b></p>  <p>Holistic solution partner</p>
 <p>People</p>	<p><b>FROM</b></p>  <p>Basic activities</p> <p><b>TO</b></p>  <p>People development</p>
 <p>Production and supply chain</p>	<p><b>FROM</b></p>  <p>Supplemented by third parties</p> <p><b>TO</b></p>  <p>Scalable with third parties</p>
 <p>TOMRA Brand</p>	<p><b>FROM</b></p>  <p>B2B RVM Supplier</p> <p><b>TO</b></p>  <p>B2H Thought leader Business Partner</p>
 <p>Process and New market entry</p>	<p><b>FROM</b></p>  <p>HQ Regions</p> <p><b>TO</b></p>  <p>Regions HQ Global processes New Markets</p>
 <p>Financials</p>	<p><b>FROM</b></p>  <p>Sales &amp; Services</p> <p><b>TO</b></p>  <p>S&amp;S + TP Recurring revenues</p>

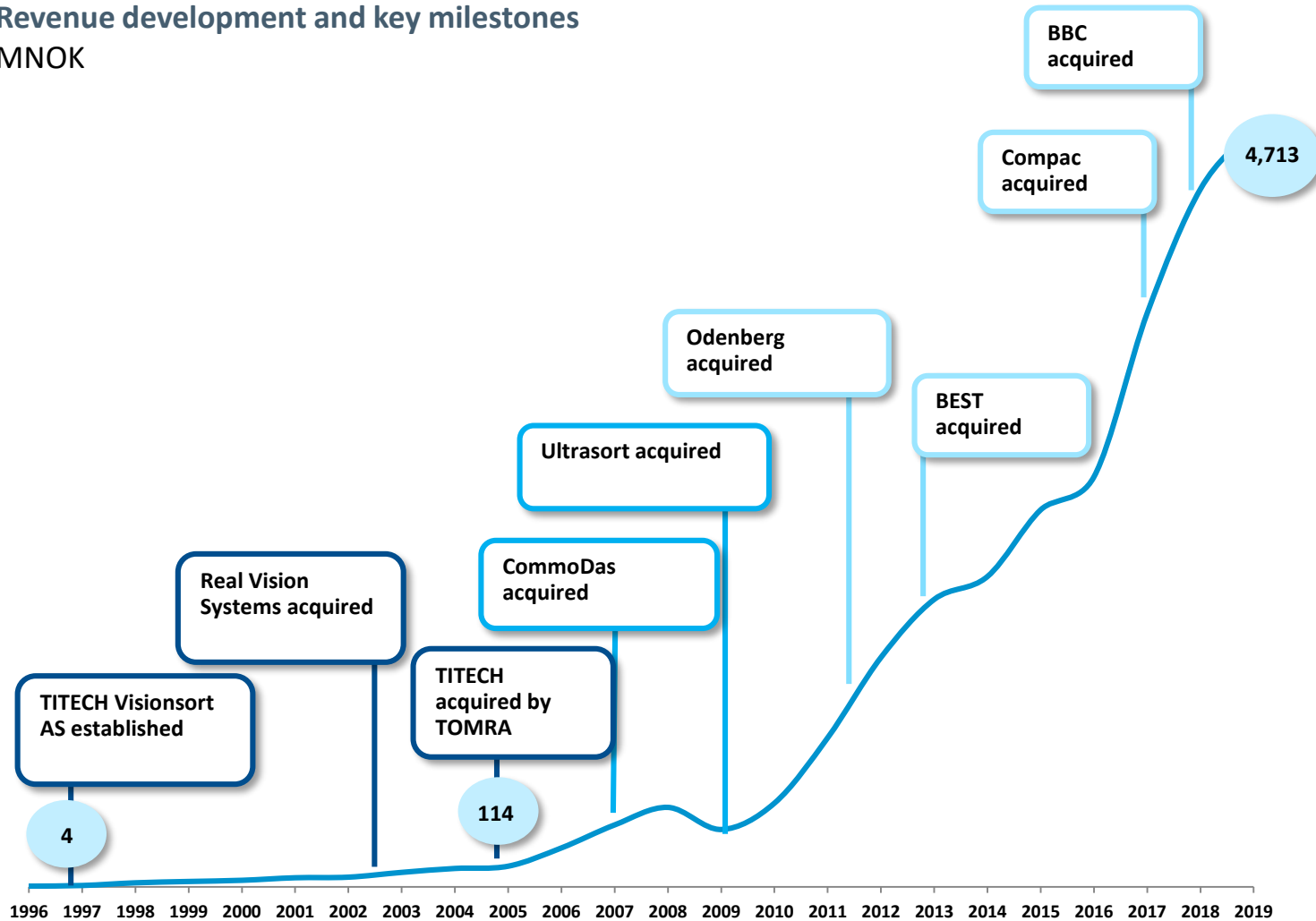




# TOMRA SORTING SOLUTIONS

# Strong revenue growth since inception in 1996

## Revenue development and key milestones MNOK



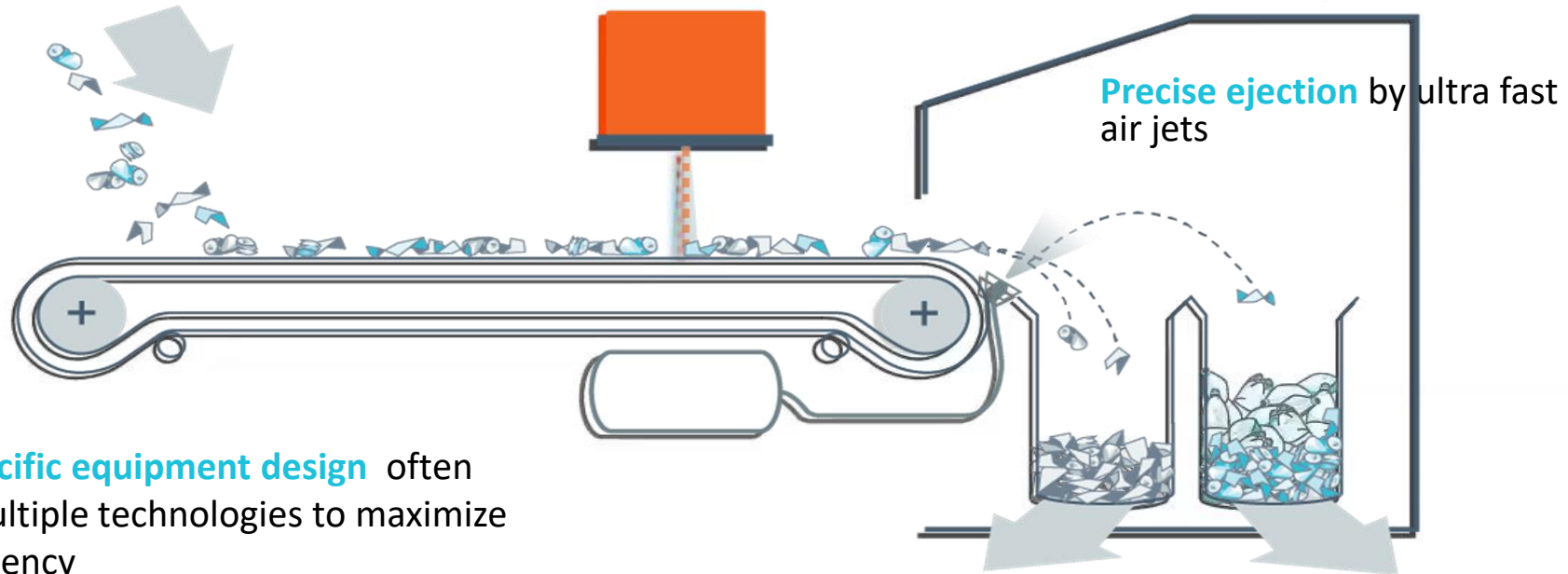
- Total revenue growth (organic plus inorganic) CAGR of ~28% per year from 2004-2019
  - Average annual organic growth for the same period was ~16%
- Technology base and segment/application knowledge expanded both through acquisitions and in-house ventures

# How does sensor-based separation work?

Feeding of unsorted material

High-tech sensors to **identify objects**

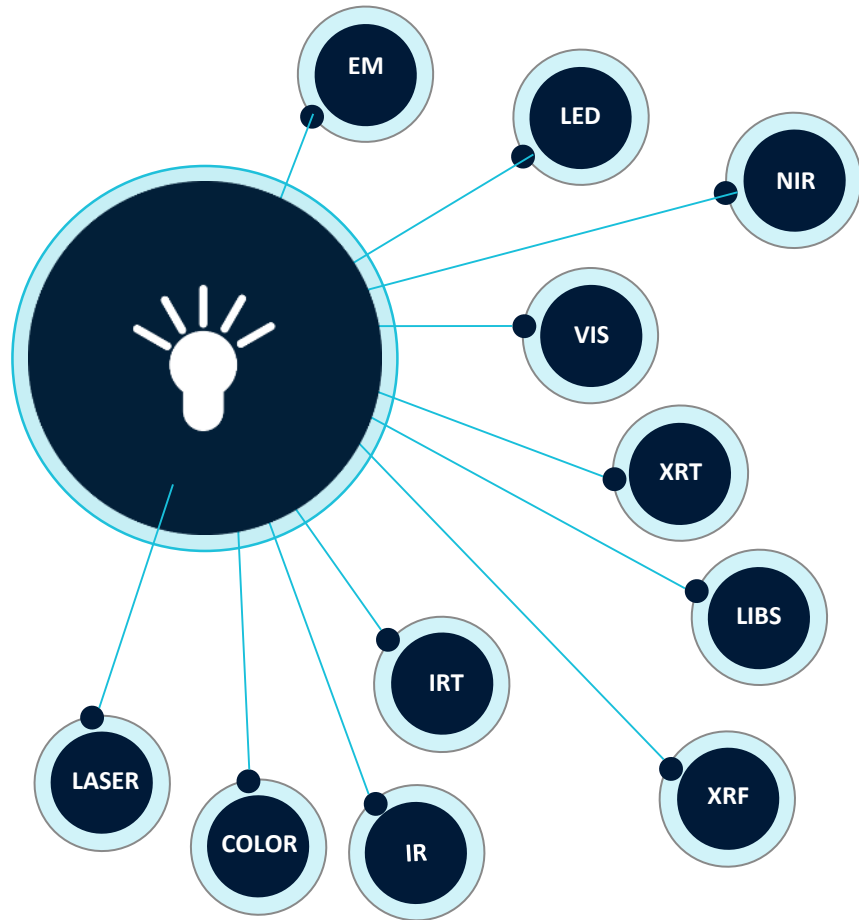
Automated sorting process using different sensors for different sorting tasks



**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 common sensor-based technology portfolio



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

	RECYCLING	MINING	FOOD
ELECTROMAGNETIC SENSOR (EM)	X	X	X
LED SPECTOMETRY (LED)	X	X	X
NEAR-INFRARED SPECTROSCOPY (NIR)	X	X	X
VISIBLE LIGHT SPECTROMETRY (VIS)	X	X	X
X-RAY TRANSMISSION (XRT)	X	X	X
LASER INDUCED BREAKDOWN SPECTROSCOPY (LIBS)	X		
X-RAY FLUORESCENCE (XRF)	X	X	
INFRARED TRANSMISSION (IRT)			X
IR CAMERA (IR)			X
COLOR CAMERA (COLOR)	X	X	X
LASER REFLECTION/FLUORESCENCE (LASER)	X	X	X

# 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 micotoxin contaminations



## Foreign Material

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



## Fluor

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

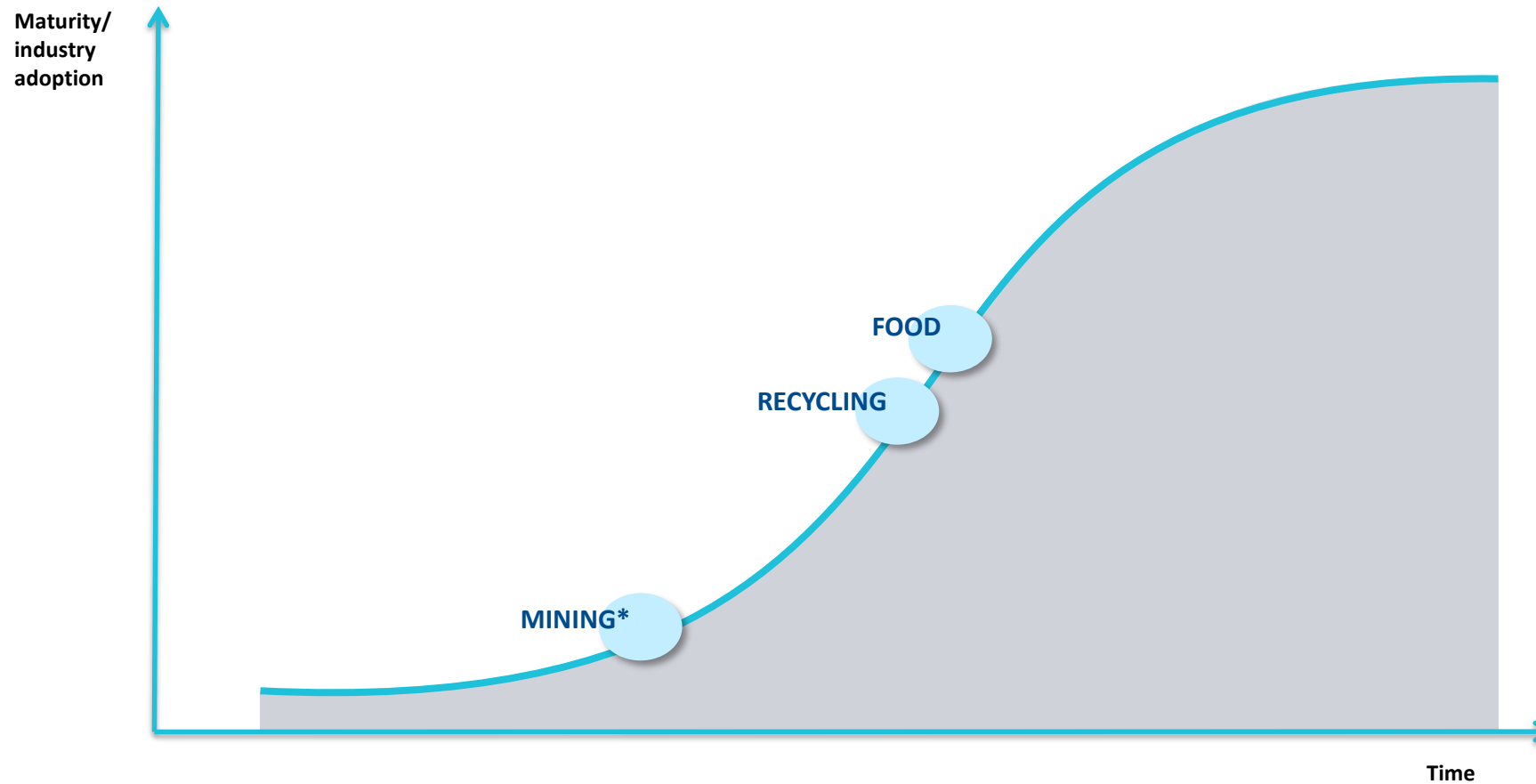
Visible

Invisible

Both



# Adoption of sensor-based sorting at different maturity levels



\* In certain mining sub-segments, such as industrial minerals and diamonds, sensor-based sorting is a more mature technology

# Examples of cross utilization of our sensor technologies



## TITECH NIR + ODENBERG platform

### Field Potato Sorter

- The NIR technology allows efficient removal of rocks, dirt and rotten potatoes before the potatoes are stored
- The solution opens up sorting of unwashed potatoes in a way that previously was not possible



## BEST LASER + TOMRA mining platform

### PRO Laser Duo

- The LASER technology allows detection of quartz of all colors. This opens for sorting of quartz itself, and gold bearing quartz mineralization
- The solution is unique in the market and further underlines our technological leadership



## TITECH NIR + BEST LASER

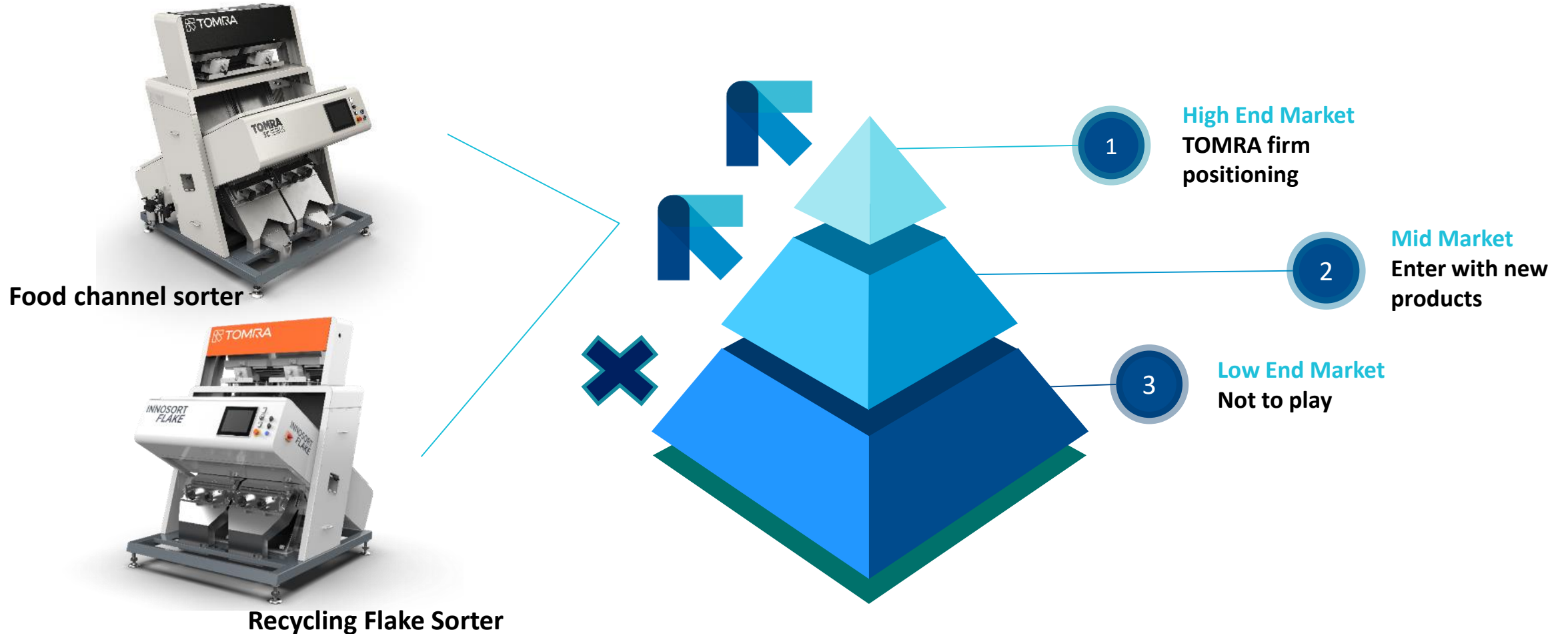
### Nimbus BSI

- An NIR sensor has been added to the NIMBUS machine platform
- The new machine increases our competitiveness in the nuts segment

Several more projects on combining technologies into new products in the pipeline

# Entering new markets through Mid-market strategy

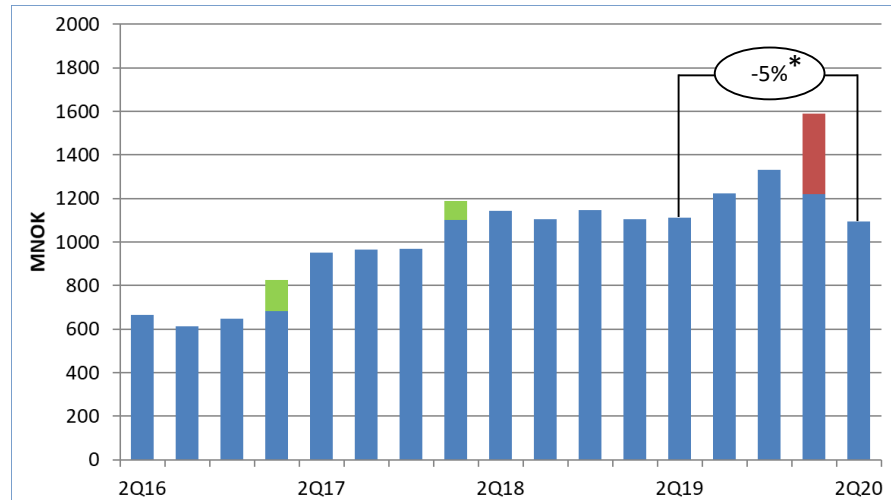
Creating competitive offering to fast growing mid-market



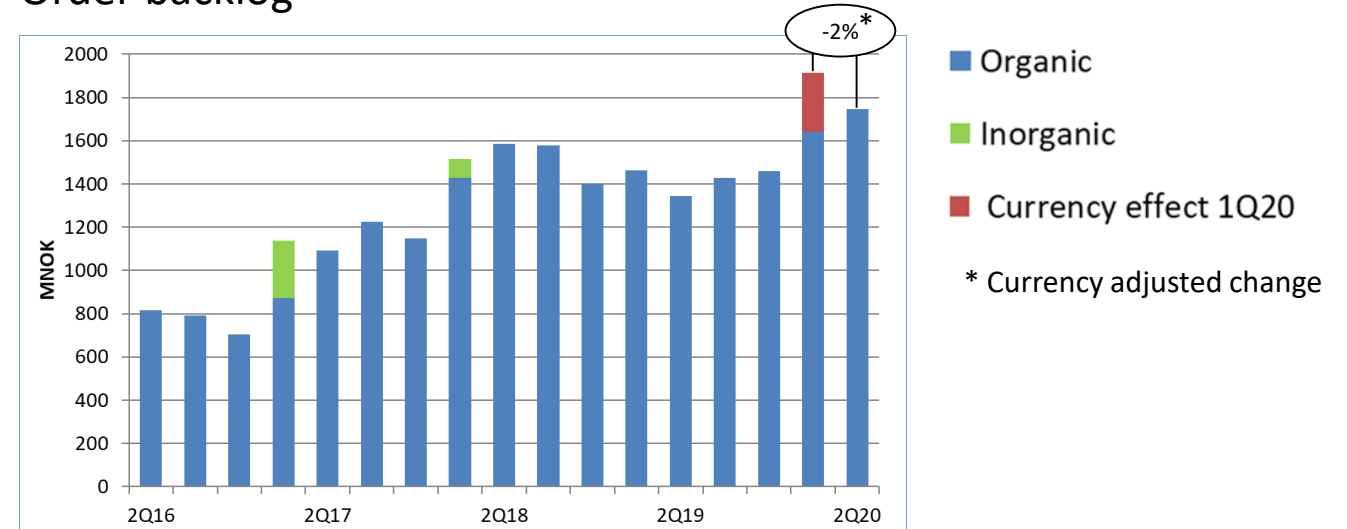


# Development in order intake and order backlog

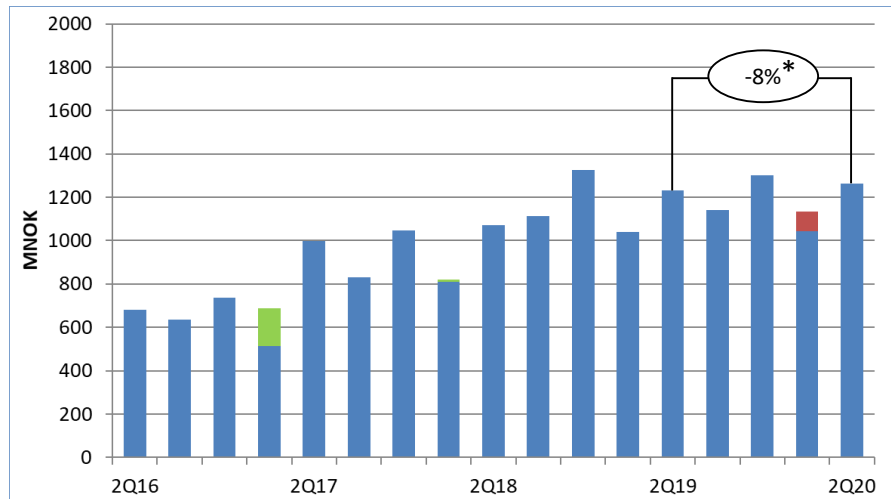
## Order intake



## Order backlog



## Revenues



- **TOMRA Sorting Solutions:**

- Revenues of 1,264 MNOK, up from 1,230 MNOK last year, down 8% currency adjusted
- Order intake of 1,095 MNOK in the quarter, compared to 1,111 MNOK same quarter last year, down 5% currency adjusted
- Order backlog of 1,746 MNOK at the end of 2Q20, down from 1,915 MNOK at the end of 1Q20 – down 2% currency adjusted

- **Estimated backlog conversion ratio in 3Q20: 70%\*\***

# FOOD FOR THOUGHT

- By 2050 we will be close to **10bn** people
- 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...



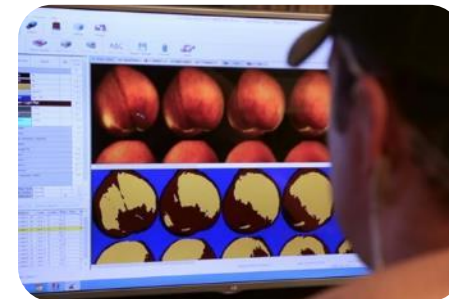
Robotics become cheaper, more advanced and user-friendly

Higher labor cost and labor shortages



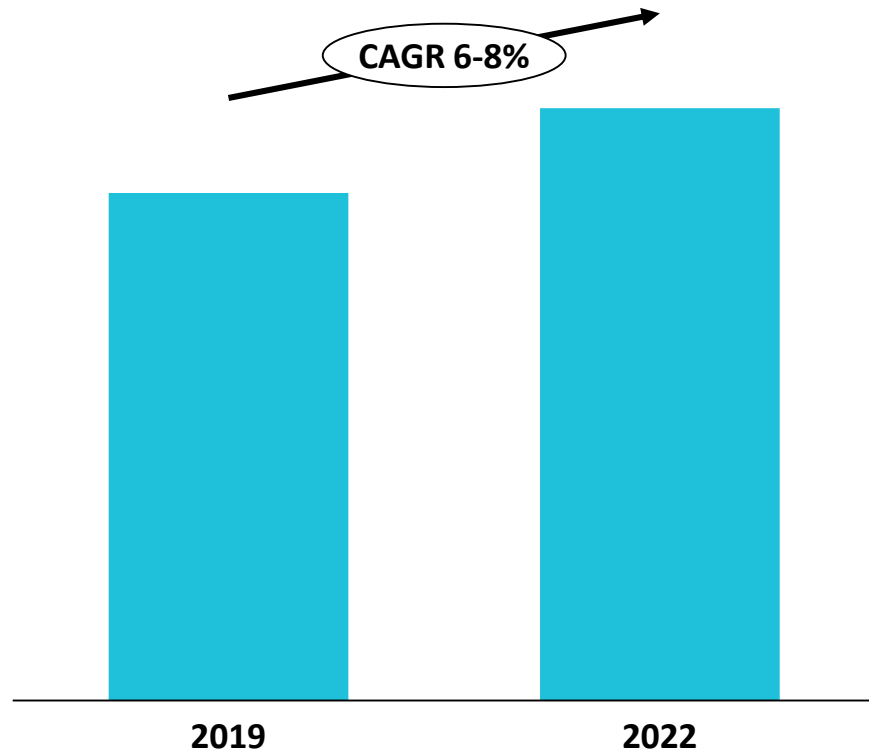
Ensure quality and safety

Improve efficiency



Leverage data insight

# 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

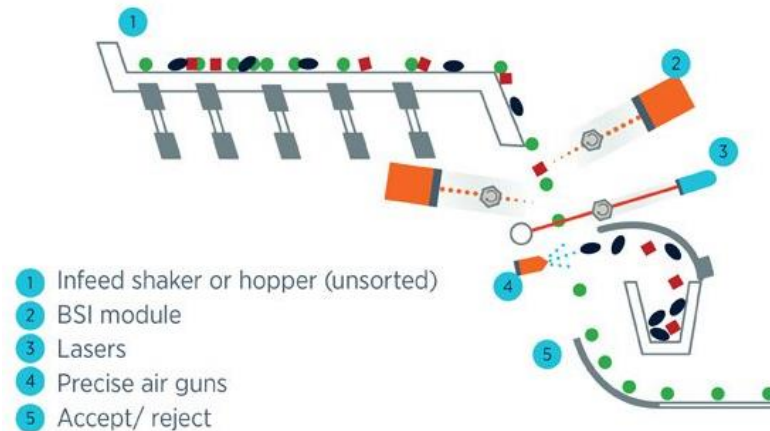
# Three ways of sorting within the Food segment

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

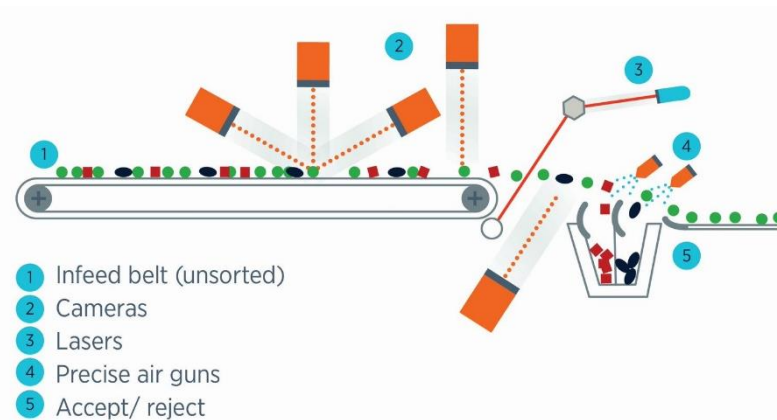
Belt	
Application	Prepared /preserved veg. and fruit
Sensor tech.	Several (complex)
Revenue share	Approx. 20%

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

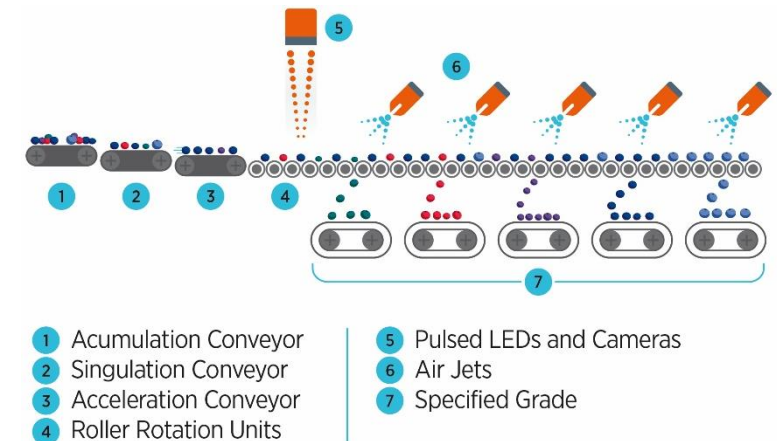
## Chute or Channel sorter



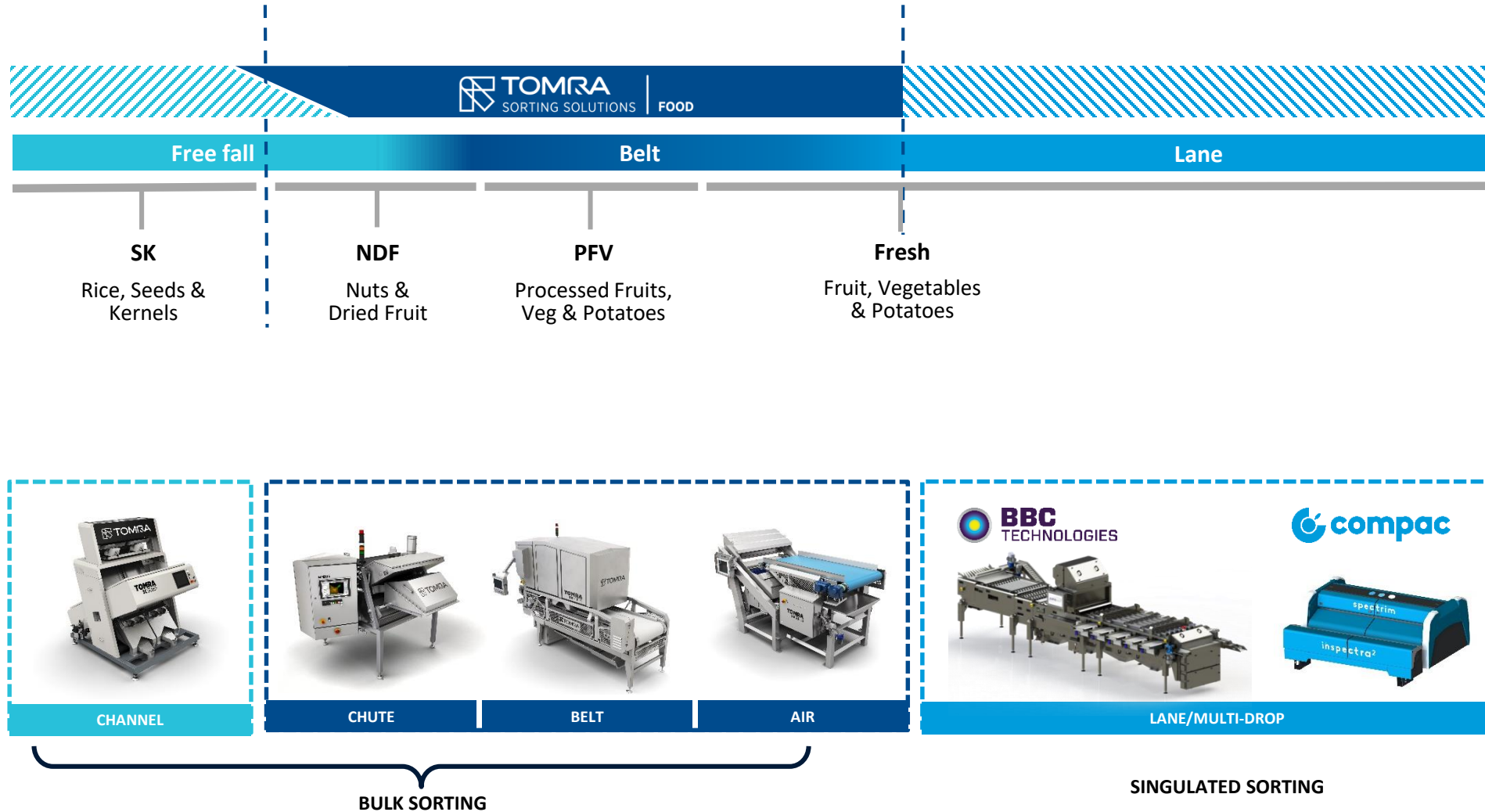
## On belt inspection



## Lane grading

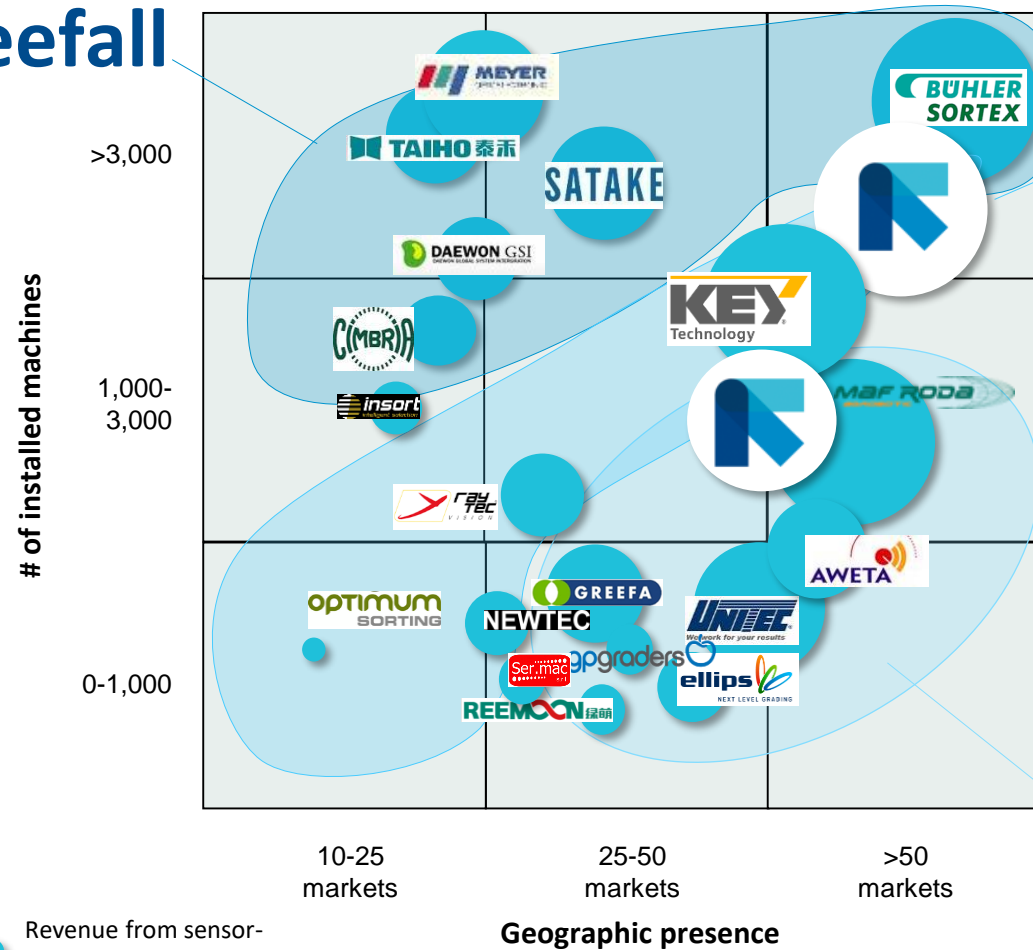


# TOMRA has established the broadest footprint within food sorting



# Food competitive landscape

Freefall



Belt

## TOMRA competitive positioning

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

Lane

# Food: applications and sensor technology

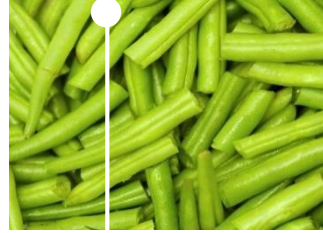
## POTATOES



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

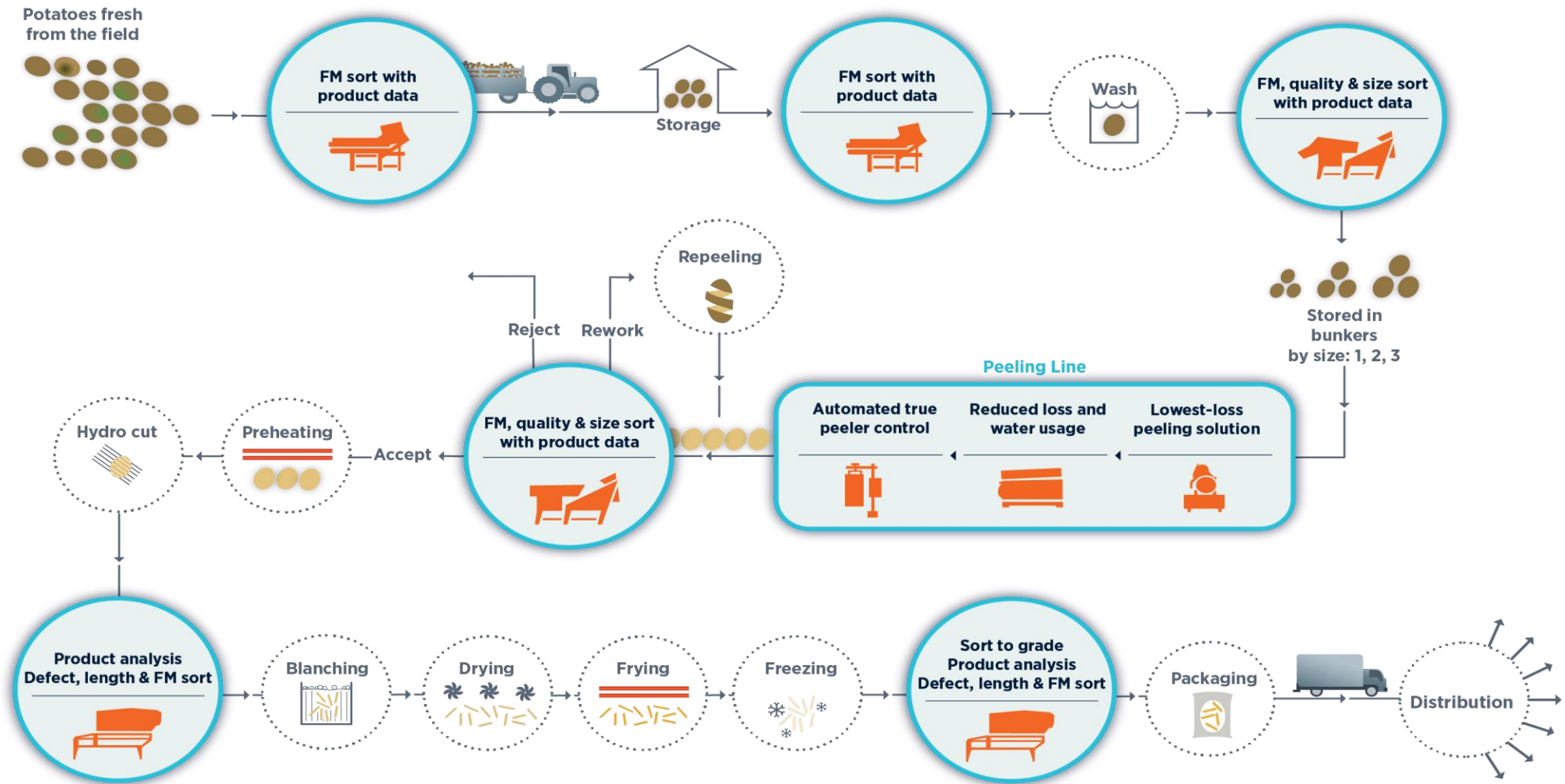


Gummies, Tobacco

**LASER, CAMERA**



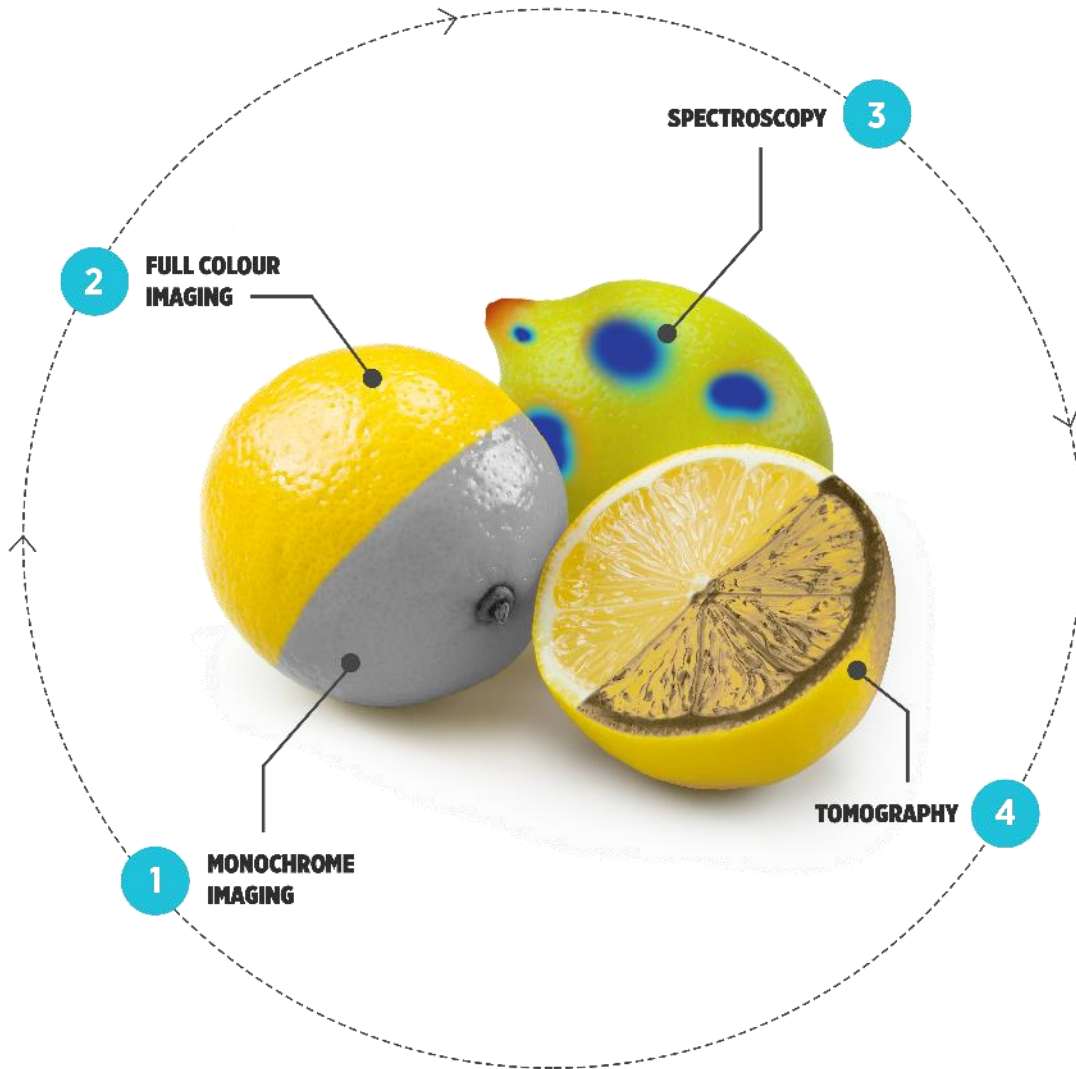
# Creating value in various parts of the food process



# Our food sorting customers



# New sensor technologies will unlock new opportunities...



- From measuring visual appearance...

... to measuring

Internal defects

Taste

Shelf life / Freshness

Food hazards

# 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

<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>
<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>

### Targets and measures

- A common EU target for recycling 60% of municipal waste by 2030
- A common EU target for recycling 70% of all packaging waste by 2030
- A common EU target for recycling 55% of all plastics by 2030
- A binding landfill target to reduce landfill to maximum of 10% of municipal waste by 2030
- Minimum requirements are established for extended producer responsibility schemes
- Simplified and improved definitions and harmonized calculation methods for recycling rates
- Concrete measures to promote re-use and stimulate industrial symbiosis
- Economic incentives for producers to put greener products on the market and support recovery and recycling schemes



...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

# 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

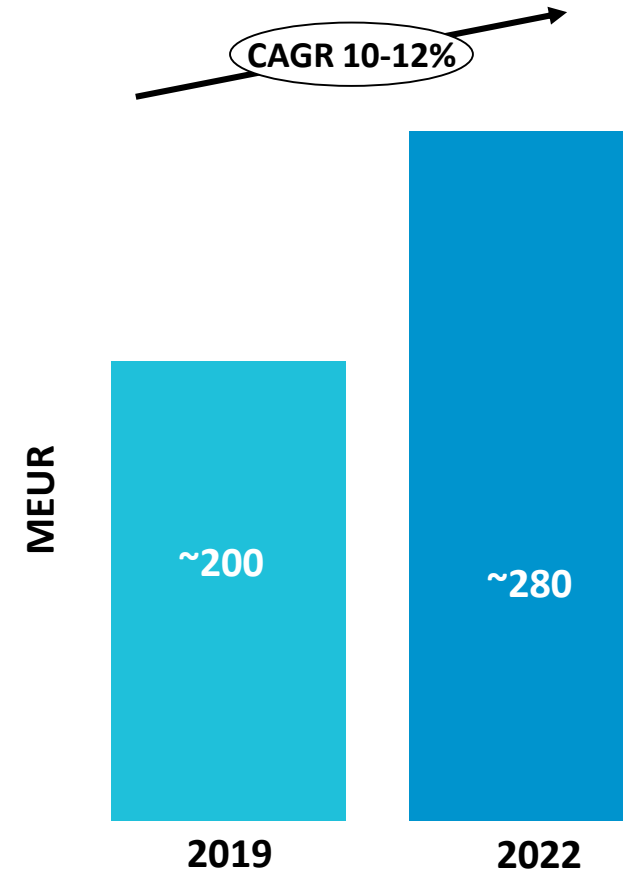
Access to capital

Consumer awareness

Commodity price fluctuations

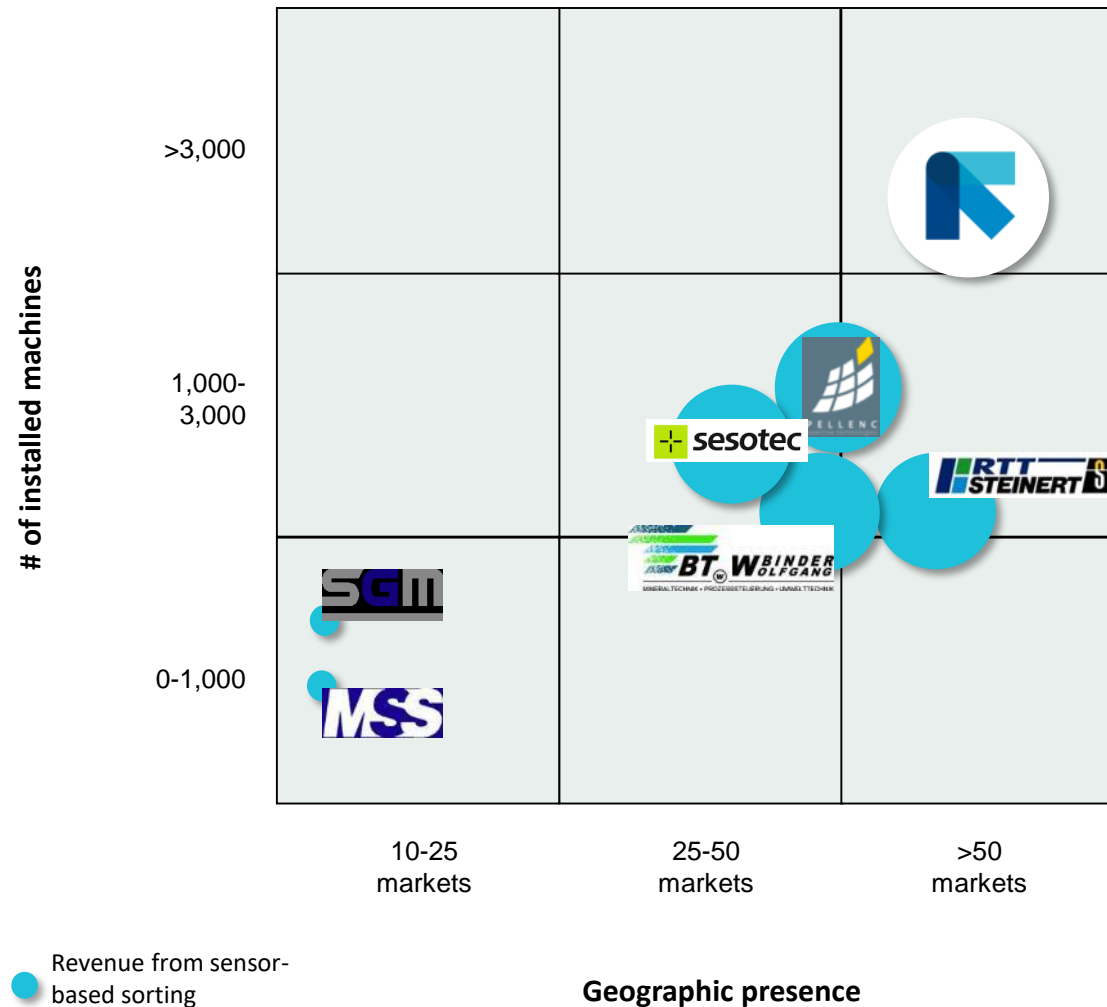
Political instability (emerging markets)

Emerging countries ban





# 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%**

# 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**

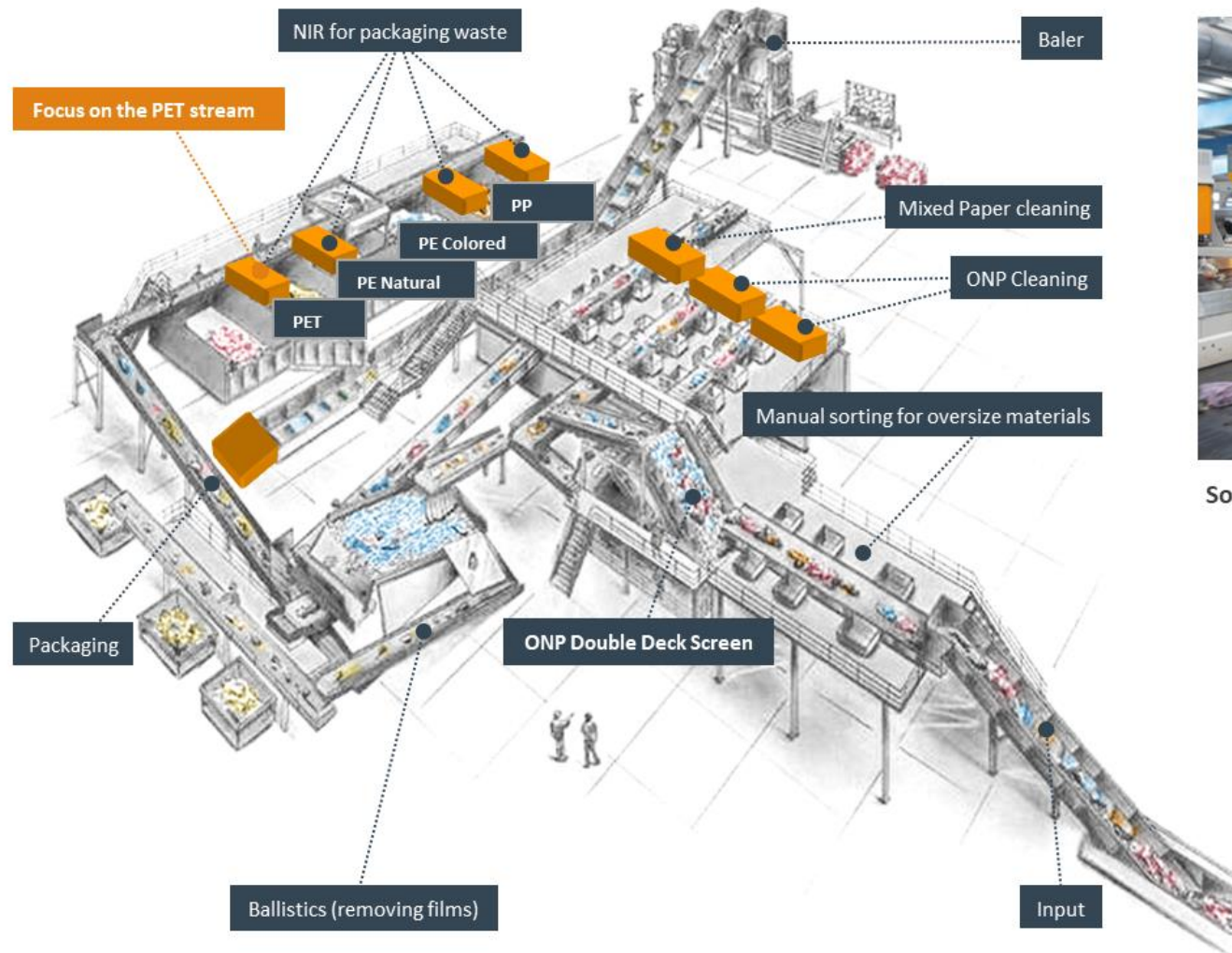
## PAPER



Deinking, cardboard, carton

**NIR, VIS, EM**

# Automation with TOMRA Sorting units

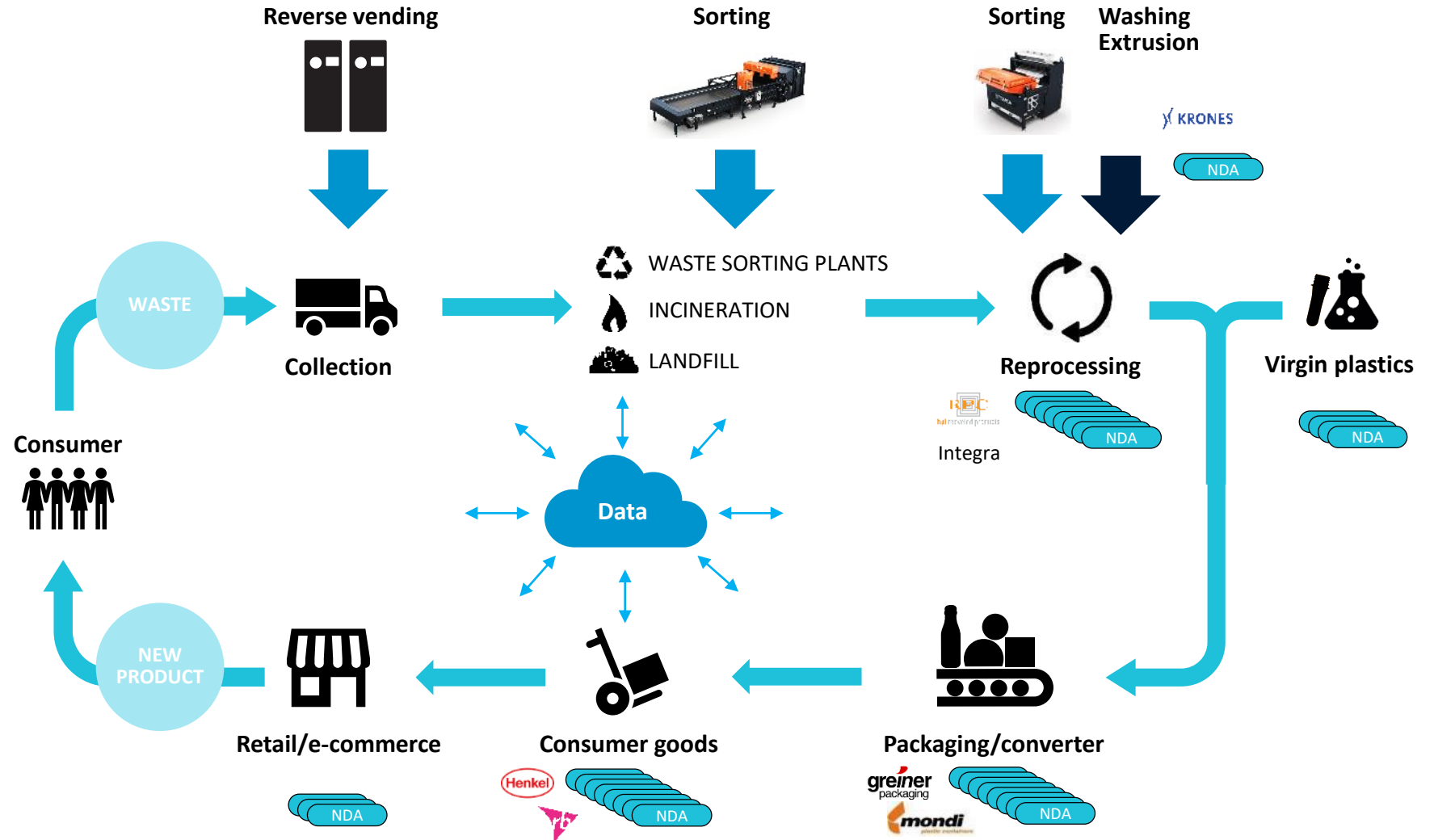


Sorting of Municipal Solid Waste, Cyprus

# Industrializing the process for recycled plastic

## SUCCESS FACTORS

- **Sufficient demand** for the recycled material
- Output to be of **high quality** and **stable quantity** in order to replace virgin material
- **Political leadership** that sets targets and monitors
- **Access to capital** and willingness to invest
- **Collaboration with multiple partners on commercialization**

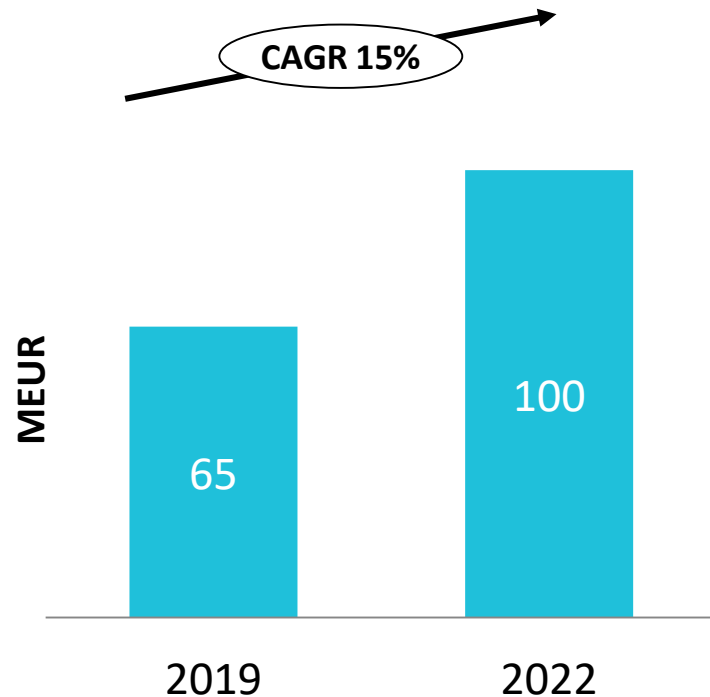


# INTELLIGENT MINE

- **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

# 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

# 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**

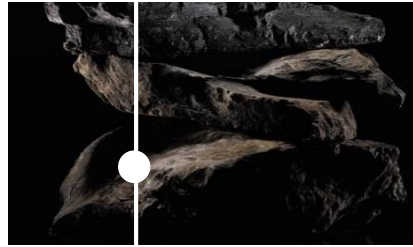
## DIAMONDS



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

**COLOR, XRT, NIR**

## FUEL



Coal waste dumps

**XRT**

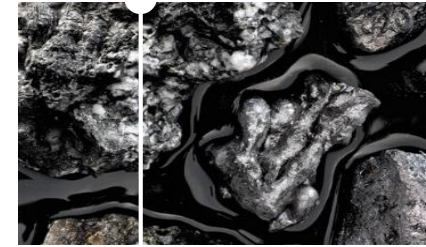
## FERROUS METALS



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

**XRT, EM, NIR**

## SLAG

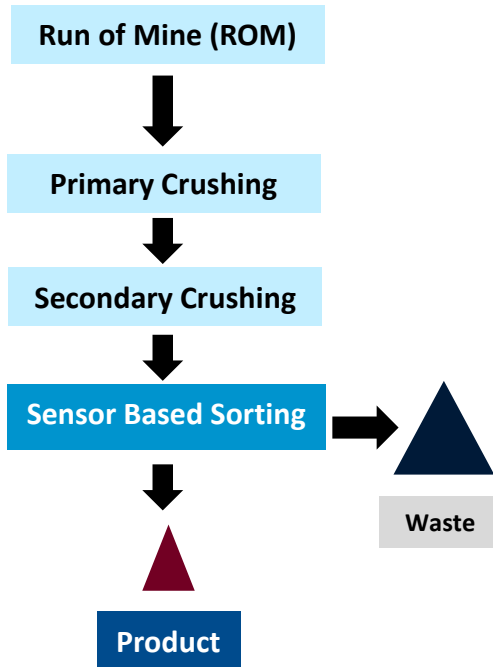


Stainless steel slag, ferro silica slag, ferro chrome slag

**XRT, EM**

# The concept of sensor-based sorting in mining

## Mining process: Industrial minerals

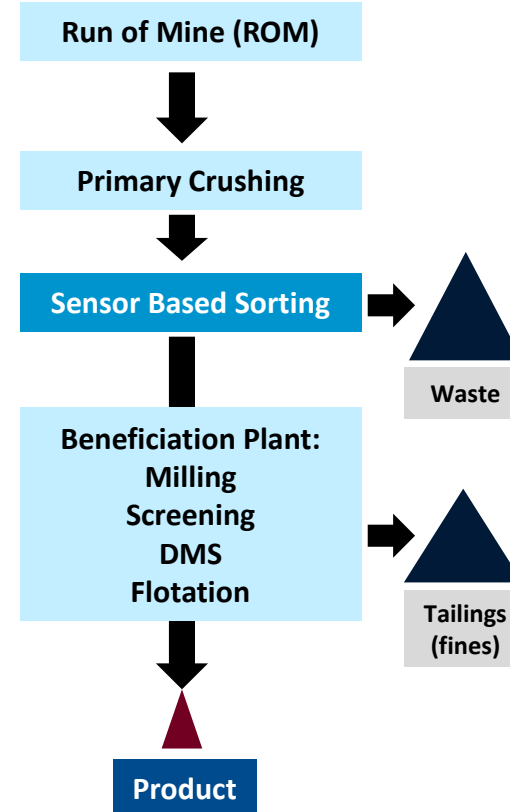


Current segment



- 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

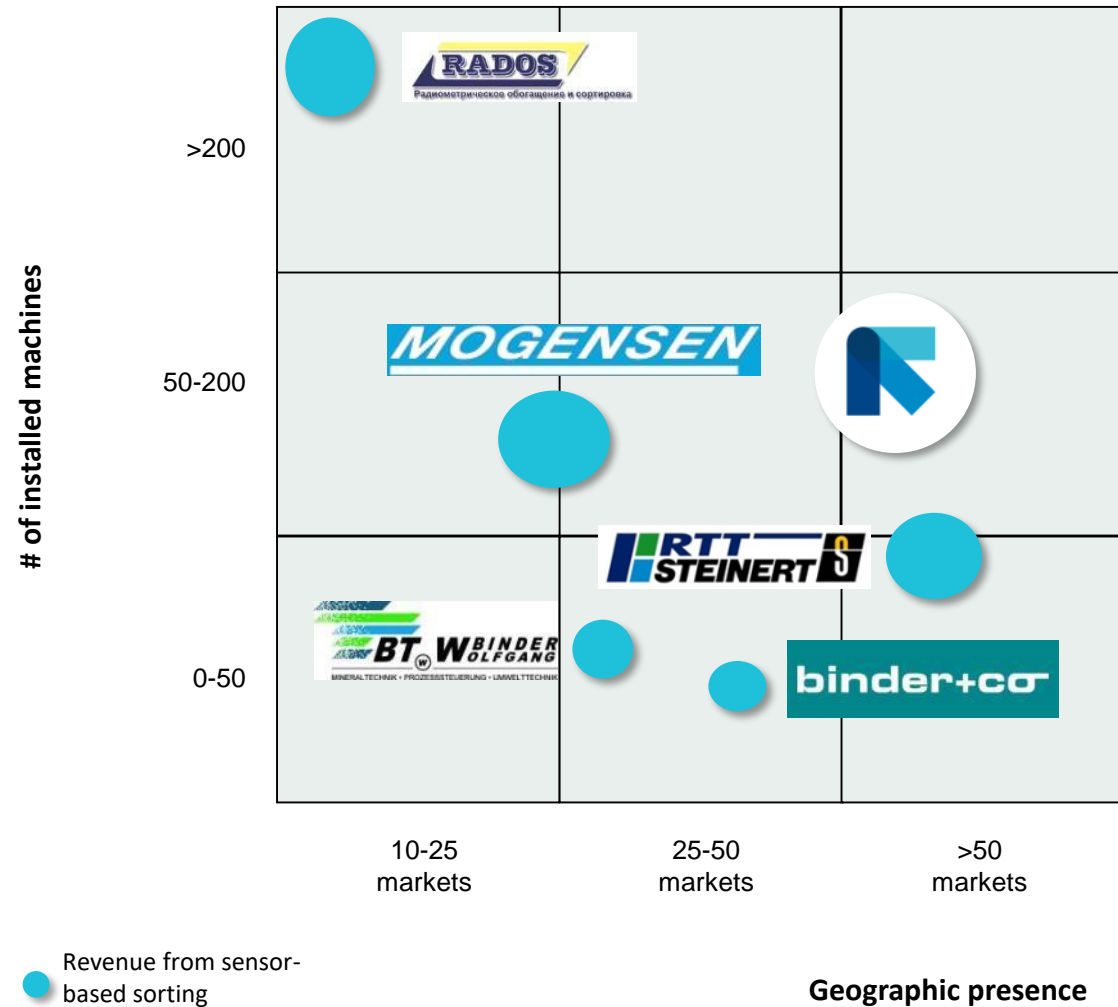
## Mining process: Metal mining



Potential new segment



# Mining: competitive landscape



## TOMRA competitive positioning

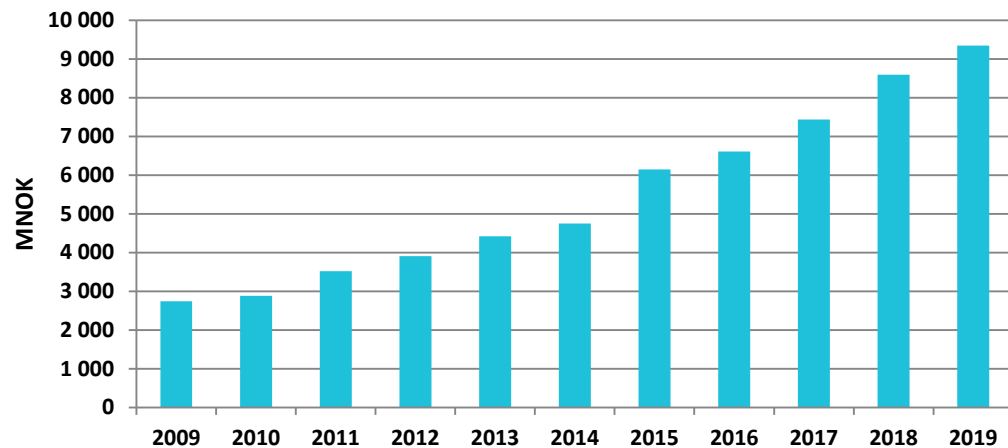
- Wide geographical coverage
- Broadest technology platform
- Leading brand
- **Market share: 40-50%**



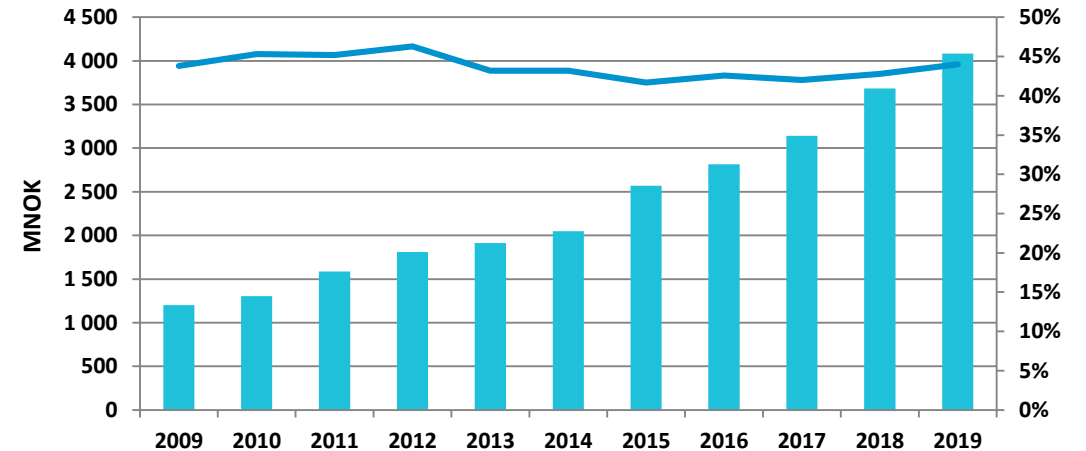
# HISTORICAL GROUP FINANCIALS AND TARGETS

# Group financials development – solid track record

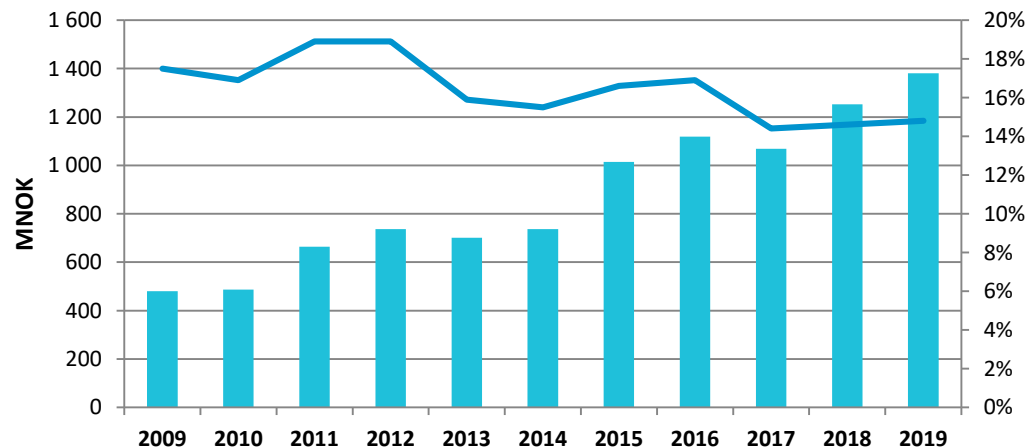
## Revenues



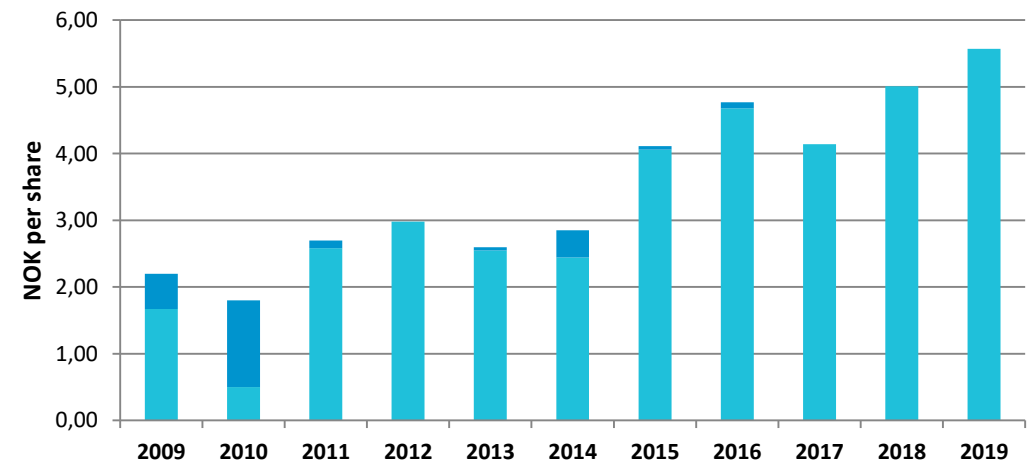
## Gross contribution and margin



## EBITA and margin

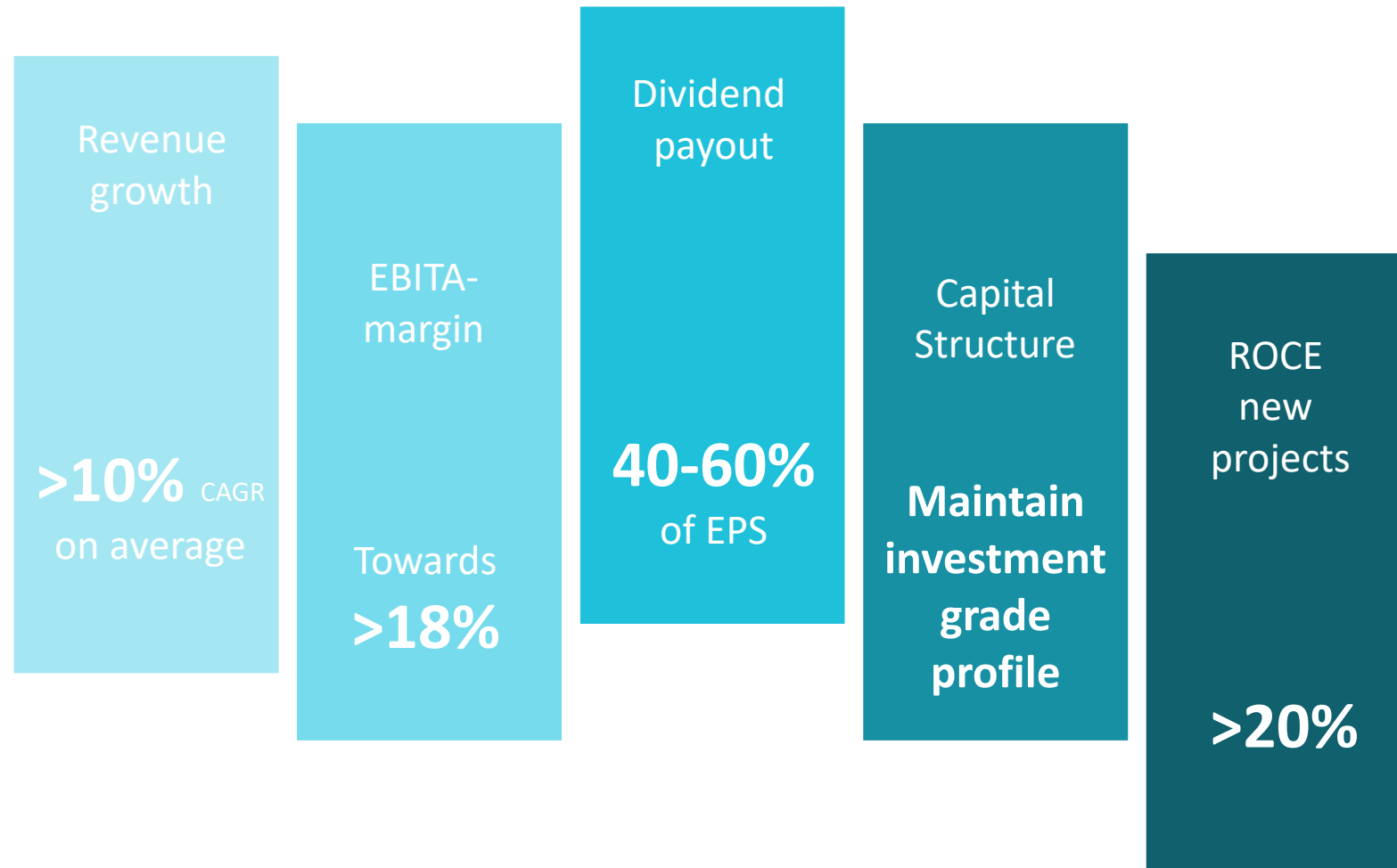


## Earnings per share

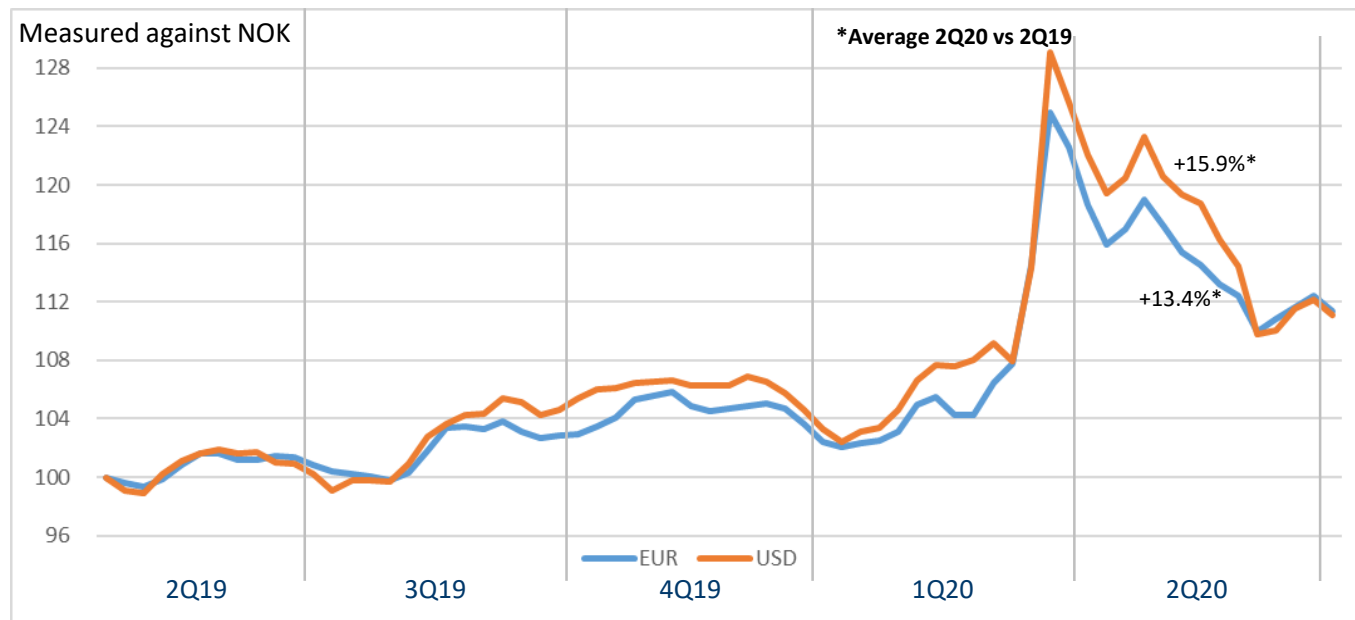


# Group financial targets 2018-2023 – our ambitions affirmed

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# 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	50 %	15 %	15 %	20 %	100 %
Liabilities	60 %	10 %	20 %	10 %	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

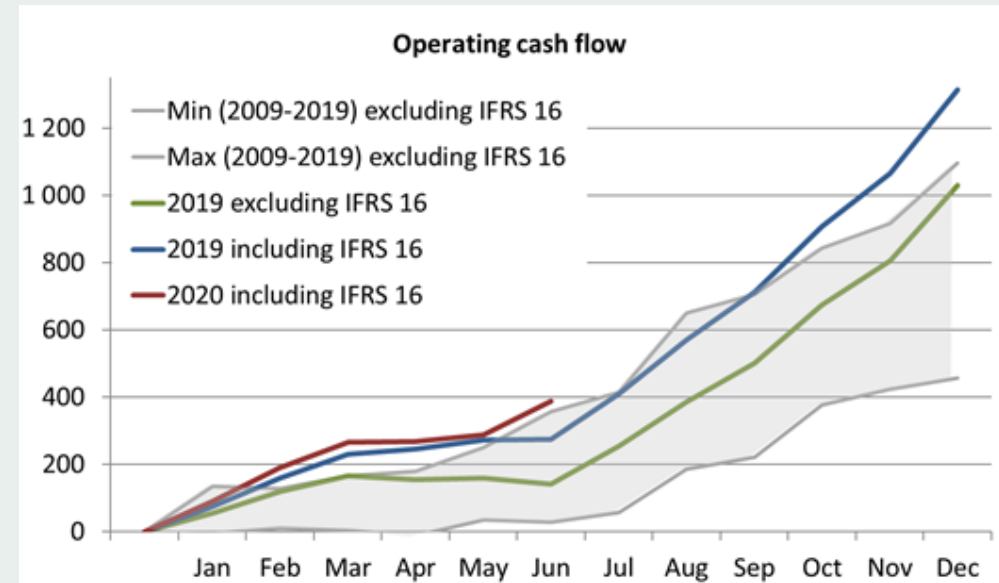
- TOMRA can hedge up to one year of future predicted cash flows. Gains and losses on these hedges are recorded at the finance line, not influencing EBITA

### 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

	30 June		31 Dec
<i>Amounts in NOK million</i>	2020	2019	2019
<b>ASSETS</b>	<b>12,036</b>	<b>10,761</b>	<b>10,868</b>
Intangible non-current assets	4,087	3,753	3,788
Tangible non-current assets	2,436	2,321	2,330
Financial non-current assets	433	330	406
Inventory	1,941	1,619	1,596
Receivables	2,680	2,422	2,288
Cash and cash equivalents	459	316	460
<b>LIABILITIES AND EQUITY</b>	<b>12,036</b>	<b>10,761</b>	<b>10,868</b>
Equity	5,880	4,760	5,247
Lease liabilities	1,128	1,110	1,102
Interest-bearing liabilities	2,048	2,208	1,880
Non interest-bearing liabilities	2,980	2,683	2,639



## Cashflow from operations

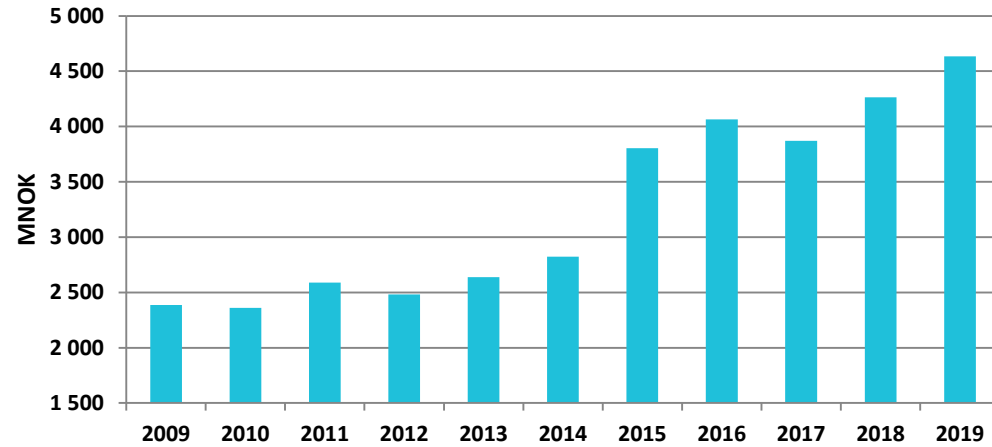
- 123 MNOK in the second quarter (45 MNOK in second quarter 2019)

## Solidity and gearing

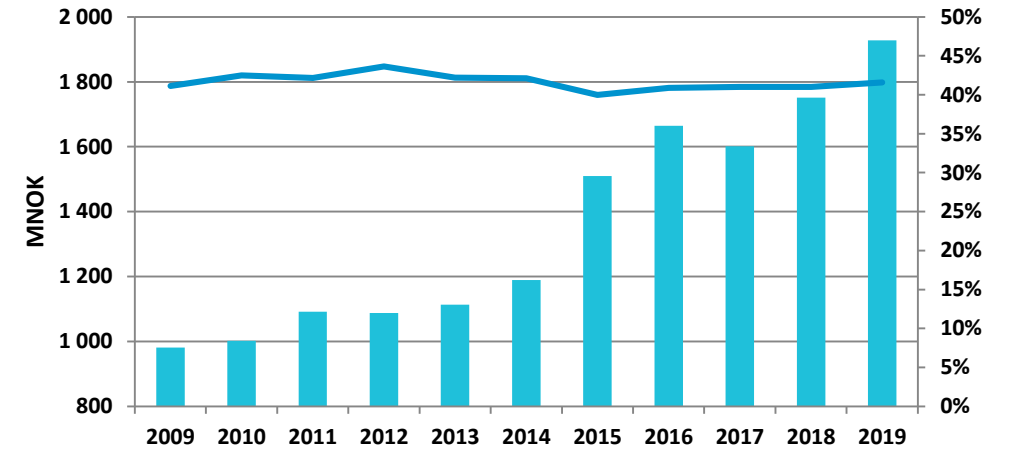
- 49% equity ratio
- NIBD/EBITDA (Rolling 12 months)
  - 1.0x without IFRS 16
  - 1.4x including IFRS 16

# Collection solutions – segment financials

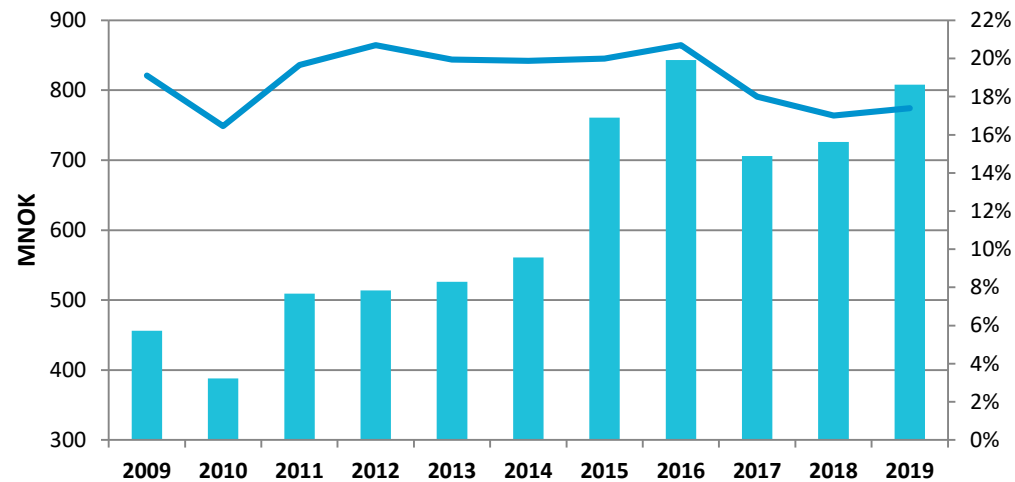
## Revenues



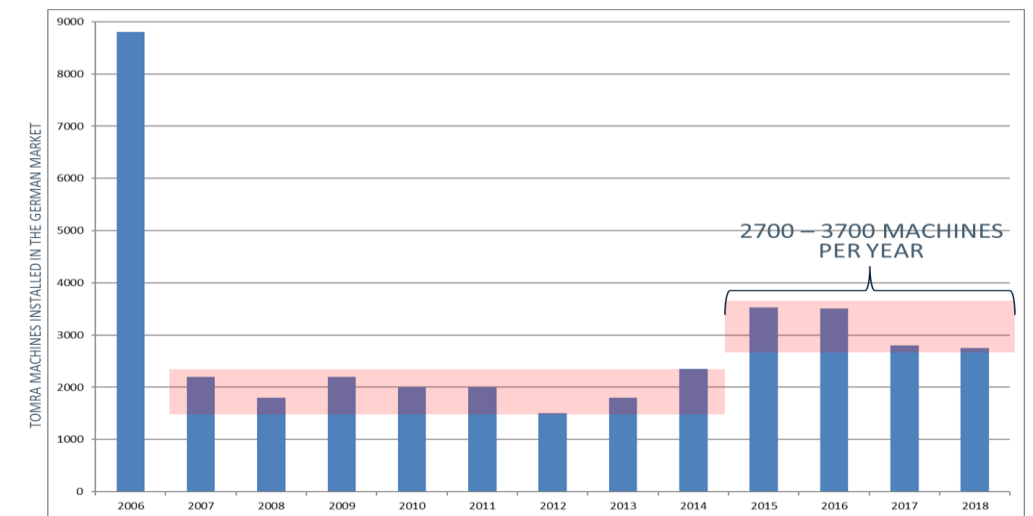
## Gross contribution and margin



## EBITA and margin

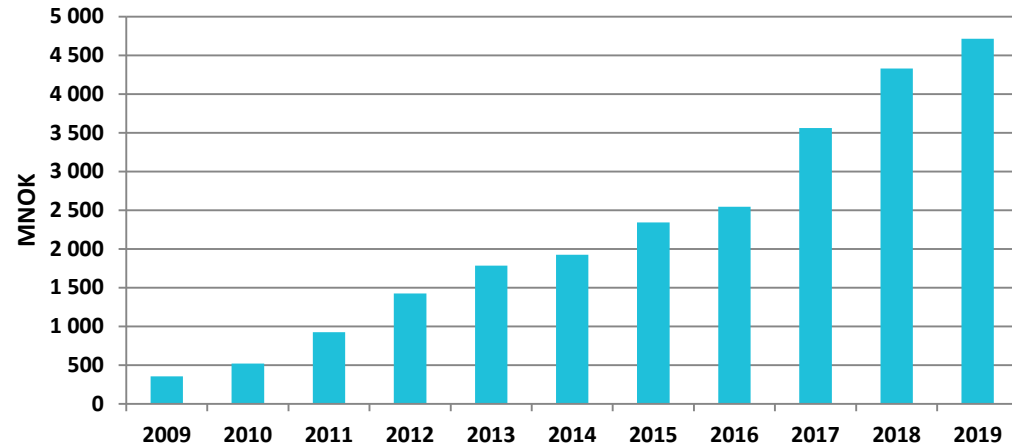


## TOMRA machines installed in the German market

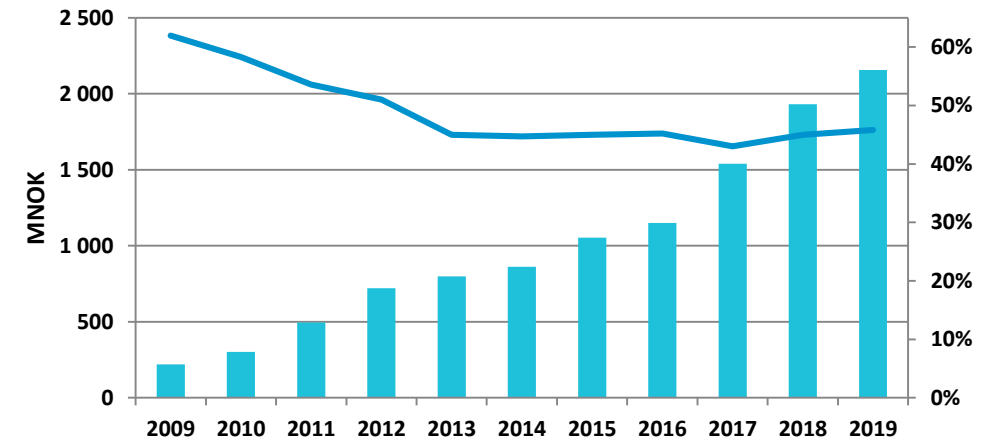


# Sorting solutions – segment financials

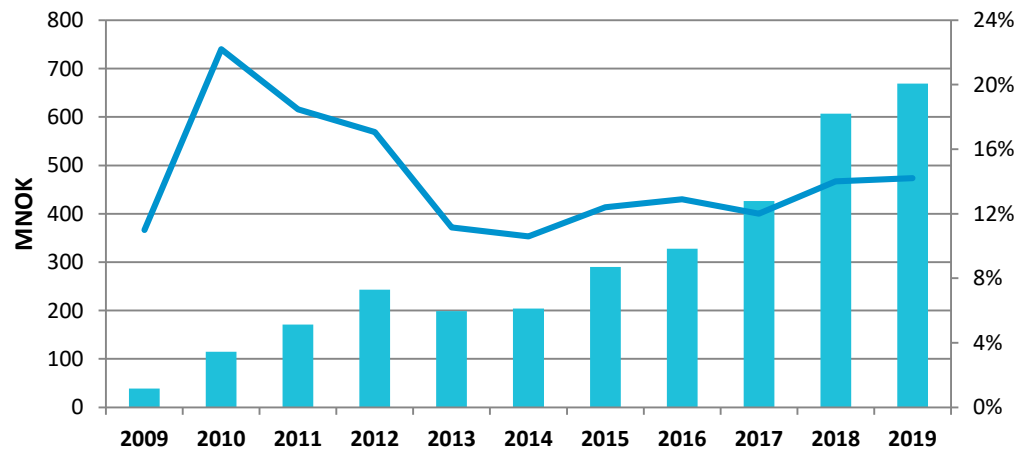
## Revenues



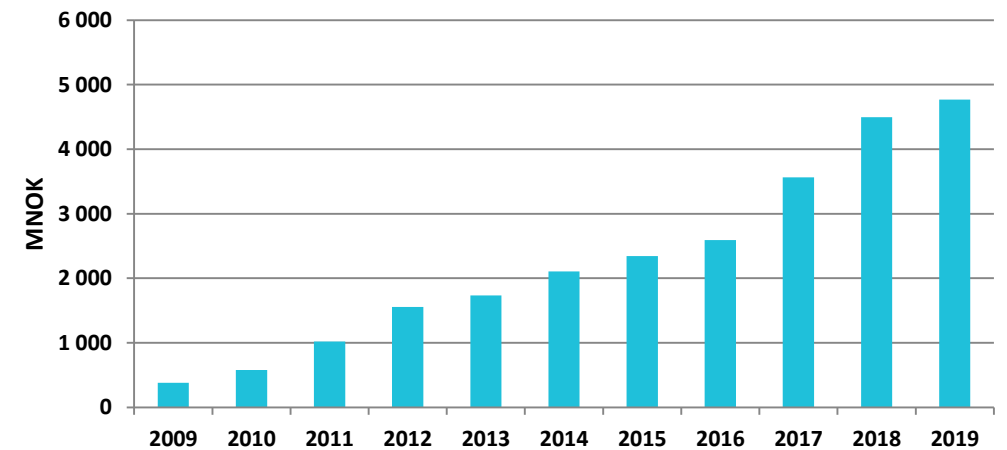
## Gross contribution and margin



## EBITA and margin



## Order Intake



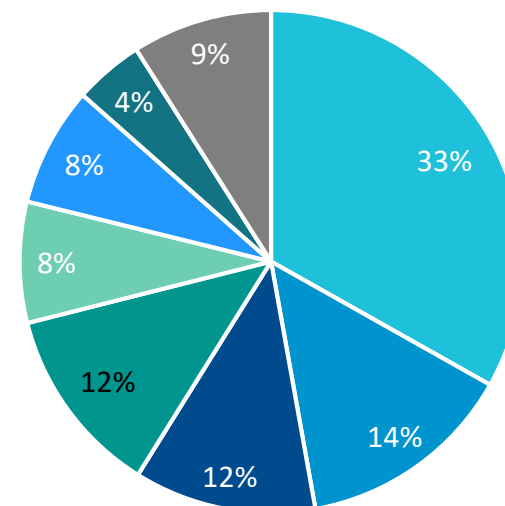


# Shareholder structure

## Top 10 shareholders as of 01 July 2020

1	Investment AB Latour	31 200 000	21,1 %	
2	Folketrygdfondet	10 854 938	7,3 %	
3	The Bank of New York Mellon SA/NV	7 978 000	5,4 %	(NOM)
4	State Street Bank and Trust Comp	8 171 915	5,5 %	(NOM)
5	Clearstream Banking S.A.	5 799 242	3,9 %	(NOM)
6	JPMorgan Chase Bank, N.A., London	2 047 919	1,4 %	(NOM)
7	CACEIS Bank	1 941 175	1,3 %	(NOM)
8	J.P. Morgan Bank Luxembourg S.A.	1 779 783	1,2 %	(NOM)
9	Credit Suisse (Luxembourg) S.A.	1 550 211	1,0 %	(NOM)
10	Citibank, N.A.	1 252 918	0,8 %	(NOM)
	<b>Sum Top 10</b>	<b>72 603 101</b>	<b>49.0%</b>	
	Other shareholders	75 416 977	51.0%	
	<b>TOTAL (9.522 shareholders)</b>	<b>148 020 078</b>	<b>100.0%</b>	

## Shareholders by country



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