INVESTOR PRESENTATION

TOMRA SYSTEMS ASA

xx.xx.2018

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

Sources: Wrap, Ellen McArthur Foundation, World Bank

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 is worth more than USD 5 trillion annually**
- **Agriculture** accounts for **20%** of **global greenhouse gas emissions**

Sources: Wrap, WEF, Accenture (Future of Food), McKinsey

OUR BIGGEST GLOBAL CHALLENGES = OUR BUSINESS OPPORTUNITIES

Source: UN Environment

AS THE CIRCULAR ECONOMY MINDSET EVOLVES THE NEED FOR SUSTAINABLE SOLUTIONS IS ACCELERATING

Moving from a Linear Economy…

Resource Extraction → Production → Distribution → Consumption → Waste

From Product → To Waste

To a Circular Economy…

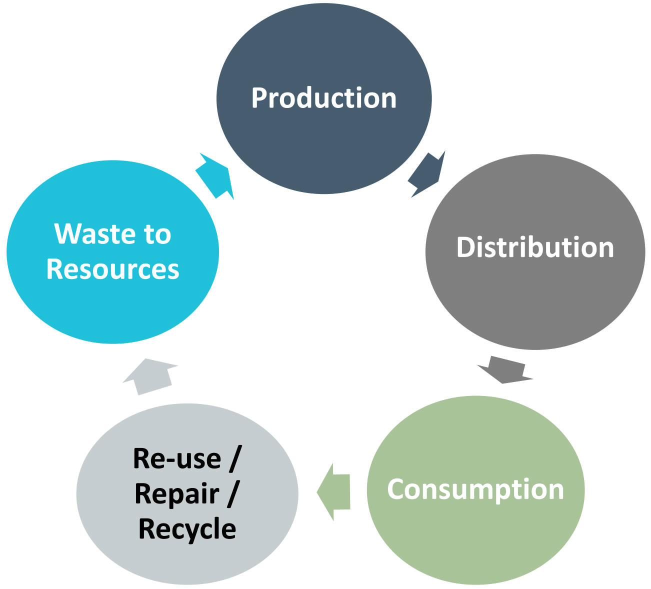
Quantity √
Quality √

Recycler

√ Higher Grade
√ Higher Grade
X Lower Grade
X Lower Grade

Beverage and Packaging Industry

From Waste → To Product



Sources: Remake from Sustainable Brands via WEF, Ellen MacArthur Foundation

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

* TOMRA ESTIMATES

1) THE NEW PLASTICS ECONOMY, Ellen MacArthur foundation, 2017

2) Prices from Statististica.com

NEW WAYS OF FEEDING A FAST GROWING DEMANDING POPULATION

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

…automate…

Increase Yield

Reduce waste

Meet consumer demands

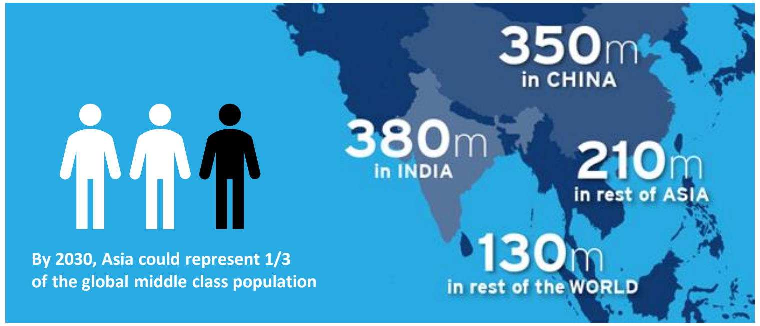
…monitor…

…and innovate

Feeding a demanding, rapidly growing urbanized population brings opportunities for TOMRA

The digital consumer…

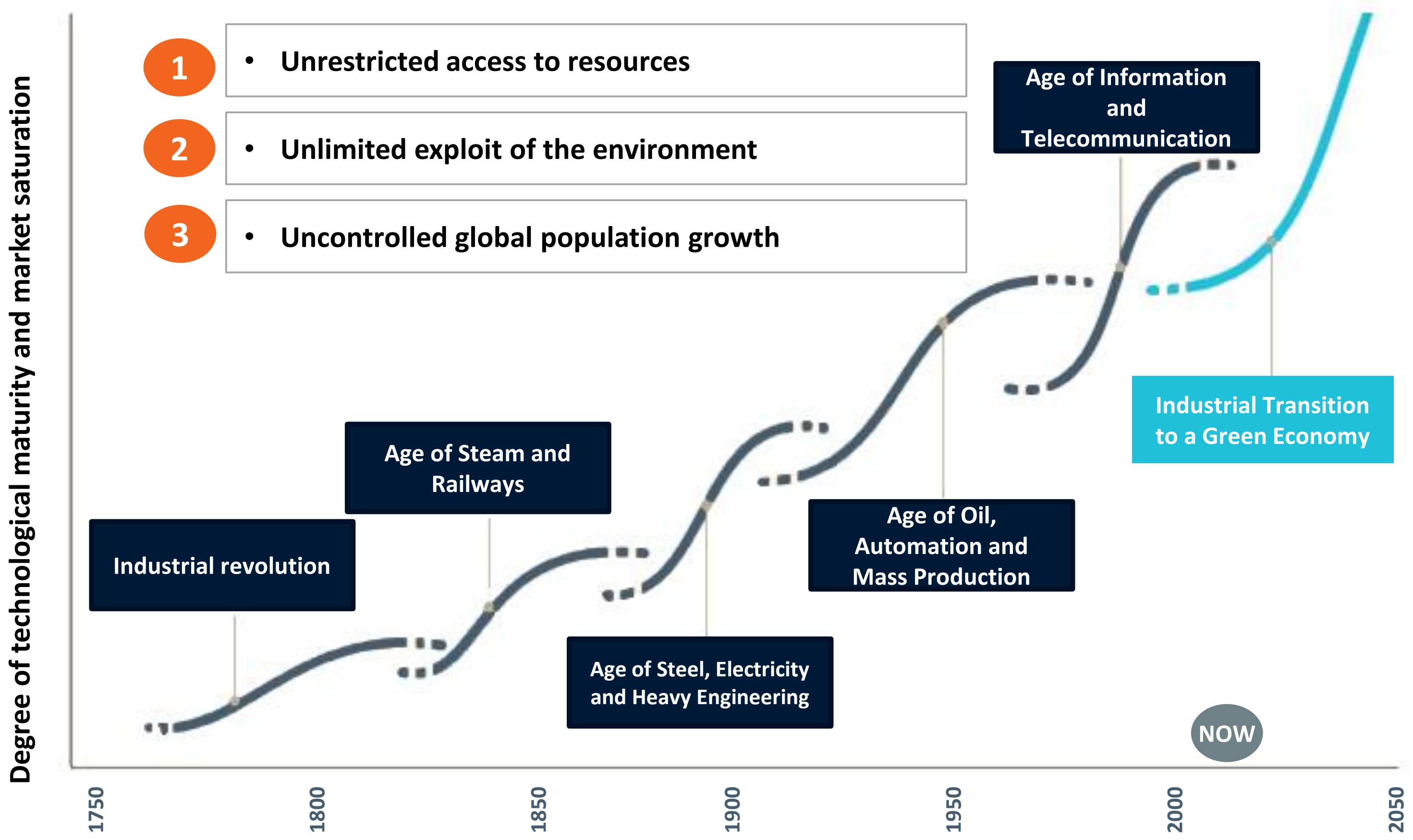
88% of the next billion entering the middle class will come from Asia



Increased buying power from a growing and wealthier middle-class…

TOMRA: POSITIONED TOWARDS MEGATRENDS

The world has undergone 5 major industrial cycles…



…creating challenges and opportunities

Strong megatrends: Opportunities for TOMRA

Climate Change and Resource Scarcity	TCS	TSS
Rapid Urbanization	TCS	TSS
Digital Economy and emergence of eCommerce	TCS	TSS
Smart Cities	TCS	TSS
Agricultural automatization and better use of farmland		TSS
Increased wealth for all and enlarged middle class	TCS	TSS

Sources: Technological evolutions and Financial Capital, Carlota Perez

- Our solutions, in use around the globe, helped keep **~25 millions of tons of CO_2** from being released into the atmosphere in 2017
- **~35 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

3550
EMPLOYEES GLOBALLY

7.4
BILLION NOK REVENUES 2017

TOMRA

TOMRA SORTING SOLUTIONS

FOOD/TOBACCO

RECYCLING

MINING

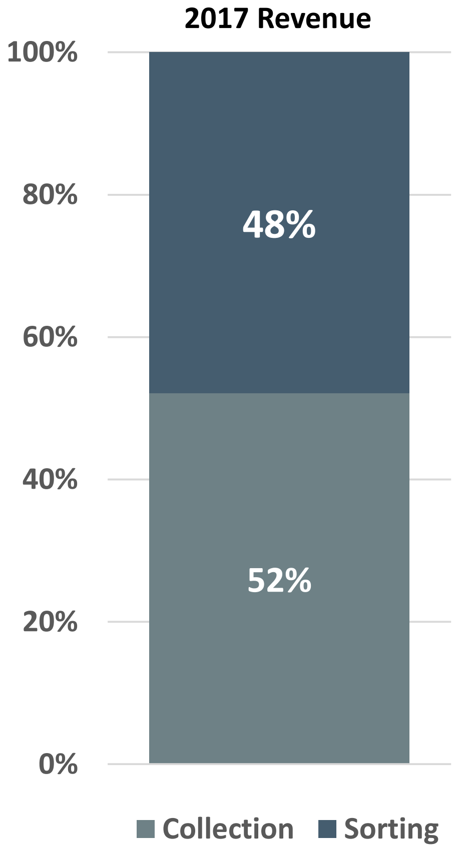
TOMRA COLLECTION SOLUTIONS

REVERSE VENDING

MATERIAL RECOVERY

Publicly listed on Oslo Stock Exchange (OSEBX: TOM)

CREATING VALUE THROUGH TWO STRONG BUSINESS AREAS*



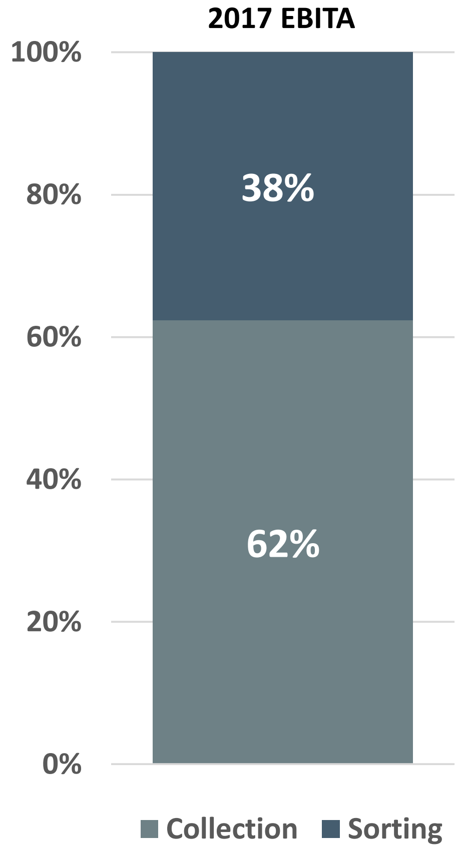
TOMRA SORTING SOLUTIONS

- High growth
- High margins
- Medium cyclicality

TOMRA COLLECTION SOLUTIONS

- Stable
- High margins
- Low cyclicality

High technology - sustainable business



* Compac consolidated from 1 February 2017, BBC not included

THE TOMRA TRANSFORMATION JOURNEY

2004 TOMRA SORTING SOLUTIONS

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

2005 TOMRA COLLECTION SOLUTIONS

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

2006 TOMRA SORTING SOLUTIONS

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

2008 TOMRA SORTING SOLUTIONS

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

2011 TOMRA COLLECTION SOLUTIONS

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

2011 TOMRA SORTING SOLUTIONS

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

2012 TOMRA SORTING SOLUTIONS

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

2014 TOMRA COLLECTION SOLUTIONS

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

2016

Through it's transformation journey TOMRA has moved from a business of many brands to one brand with many areas of expertise. We are one TOMRA.

2016 TOMRA SORTING SOLUTIONS

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

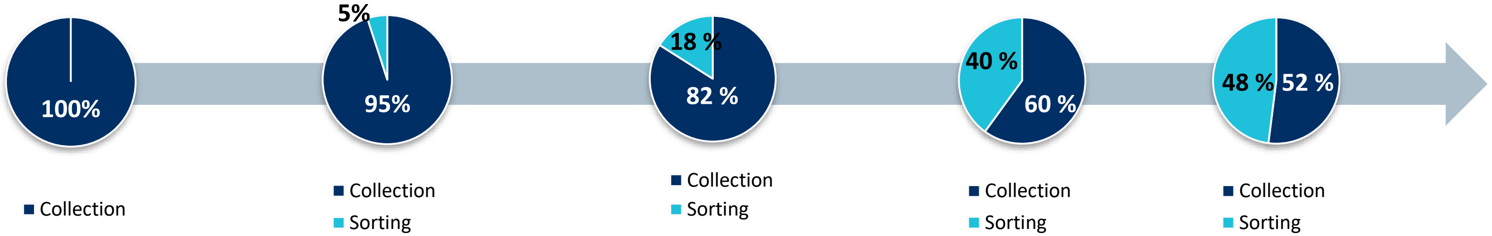
2018 TOMRA SORTING SOLUTIONS

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

FROM: 2000 | 2004 | 2008 | 2012 | 2017 | **TO:**

TOMRA

Helping the world recycle



LEADING THE RESOURCE REVOLUTION

TOMRA'S TWO BUSINESS AREAS

TOMRA SORTING SOLUTIONS

	FOOD
Share of '17 sales	~33%
Employees	1,110
Customers	Food growers, packers and processors
Market share	**Bulk: ~25%** **Lane: ~25%**

	RECYCLING
Share of '17 sales	~12%
Employees	185
Customers	Material recovery facilities, scrap dealers, metal shredder operators
Market share	**~55-65%**

	MINING
Share of '17 sales	~3%
Employees	60
Customers	Mining companies
Market share	**~40-60%**

	TOMRA SORTING GROUP FUNCTIONS & SHARED STAFF
Employees	140

TOMRA COLLECTION SOLUTIONS

	REVERSE VENDING
Share of '17 sales	~38%
Employees	1,375
Customers	Grocery retailers
Market share	**~75%**

	MATERIAL RECOVERY
Share of '17 sales	~15%
Employees	500
Customers	Grocery retailers and beverage manufacturers
Market share	**~60% in USA (markets served)**

INSTALLED BASE WORLDWIDE

TOMRA COLLECTION SOLUTIONS

REVERSE VENDING	
Nordic	~15,100
Germany	~30,000
Other Europe	~14,600
North America	~16,000
Rest of the world	~6,300
TOTAL	**~82,000**

Not including machines sold on OEM agreements

TOMRA SORTING SOLUTIONS

RECYCLING	
EMEA	~3,850
Americas	~800
Asia	~700
Other	~20
TOTAL	~5,370

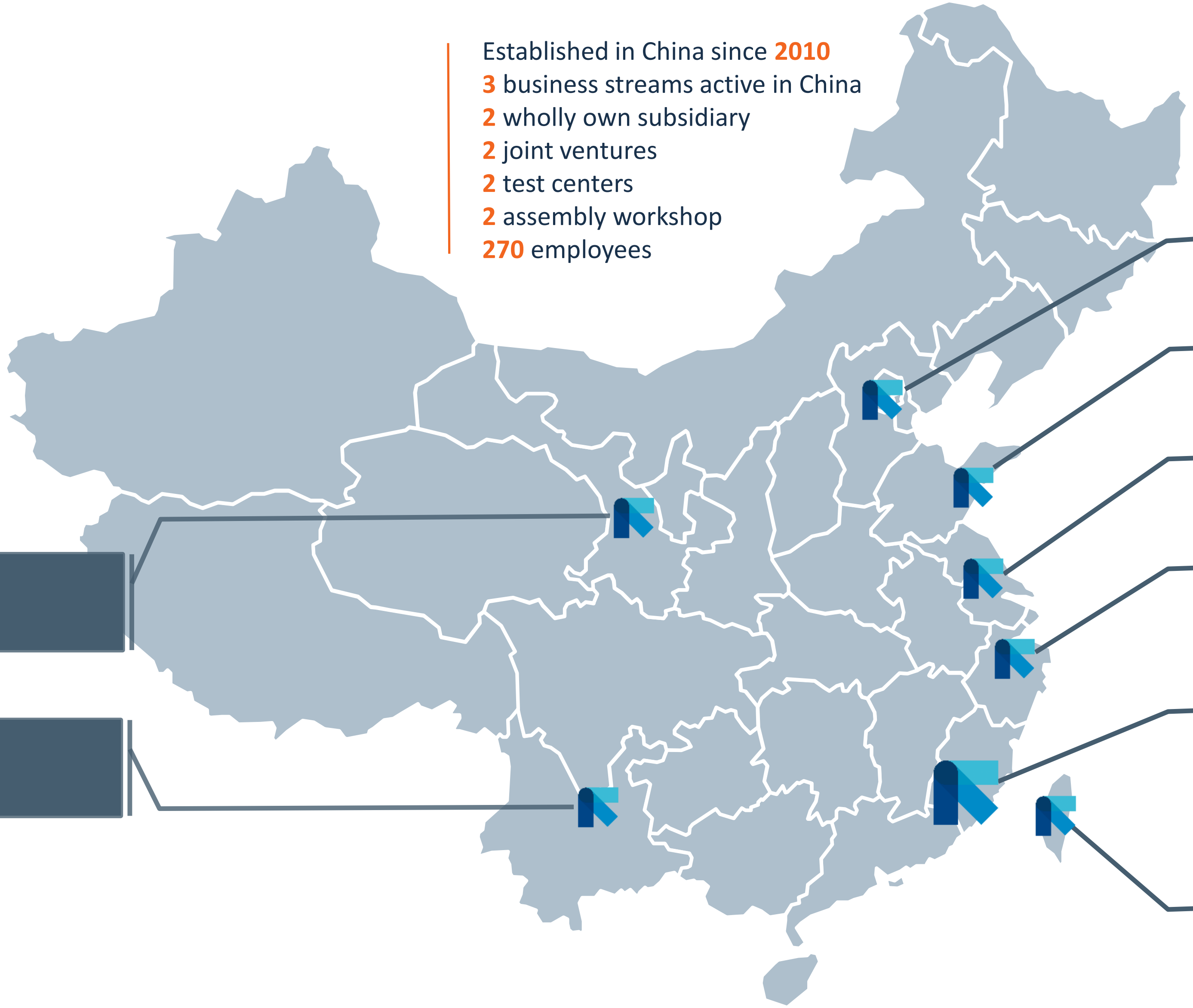
MINING	
Europe	~20
US / Canada	~35
Australia	~5
South Africa	~40
Other	~40
TOTAL	~140

FOOD BULK	
EMEA	~3,100
Americas	~2,850
Asia	~600
TOTAL	~6,550

FOOD LANE	
EMEA	~435
Americas	~690
APAC	~555
TOTAL	~1,680

STRENGTHEN PRESENCE IN CHINA

Established in China since **2010**
3 business streams active in China
2 wholly own subsidiary
2 joint ventures
2 test centers
2 assembly workshop
270 employees



Lanzhou:
- Service hub

Kunming:
- Service hub

Beijing:
- Joint venture

Qingdao:
- Service hub

Kunshan:
- COMPAC production

Hangzhou:
- Service hub

Xiamen:
- China headquarters
- R&D center
- 2 test centers
- Assembly workshop
- Joint venture

Taiwan:
- Service hub

MAKING MEANINGFUL CONTRIBUTION ALONG THE WAY

Thematic Support: Future of Food & Circular Economy

2 ZERO HUNGER

14 LIFE BELOW WATER

The TOMRA Operations

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Tangible actions to demonstrate our purpose of business

TOMRA's mission is to create sensor-based solutions for optimal resource productivity,
making sustainability profitable
– with increased relevance and meaning

TOMRA's Corporate Responsibility Program will support the vision of leading the resource revolution,
through the impact of our people, products & services

TOMRA COLLECTION SOLUTIONS

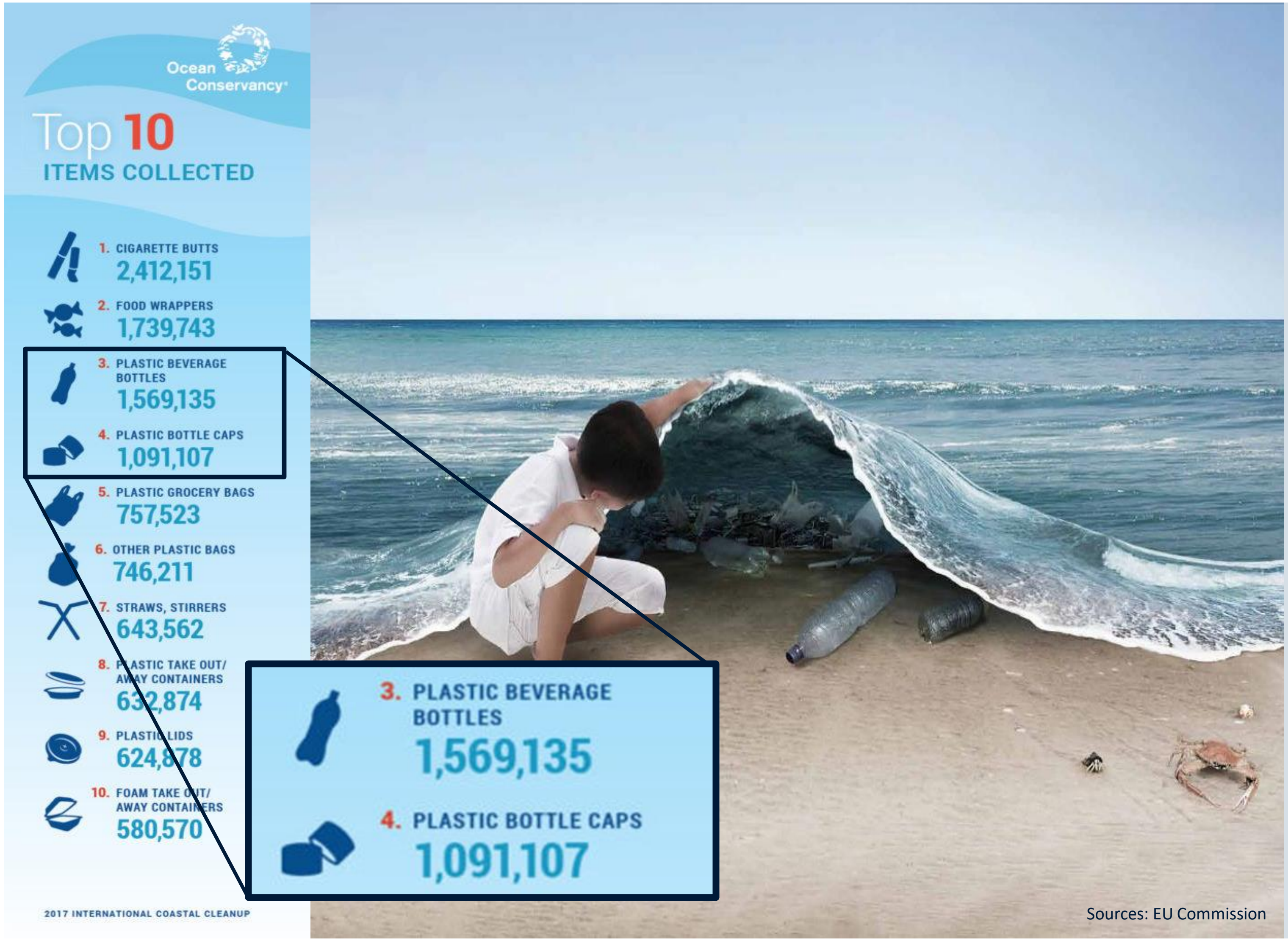
RETURNS
INTO
VALUE

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
- **~ 35bn** beverage containers are **captured by TOMRA** every year…
- …representing only **2.5%** of all beverage containers sold in 2017

Source: Euromonitor, GlobalData

INCREASING PUBLIC PRESSURE TO REDUCE WASTE AND LITTERING



Sources: EU Commission

Consumer awareness

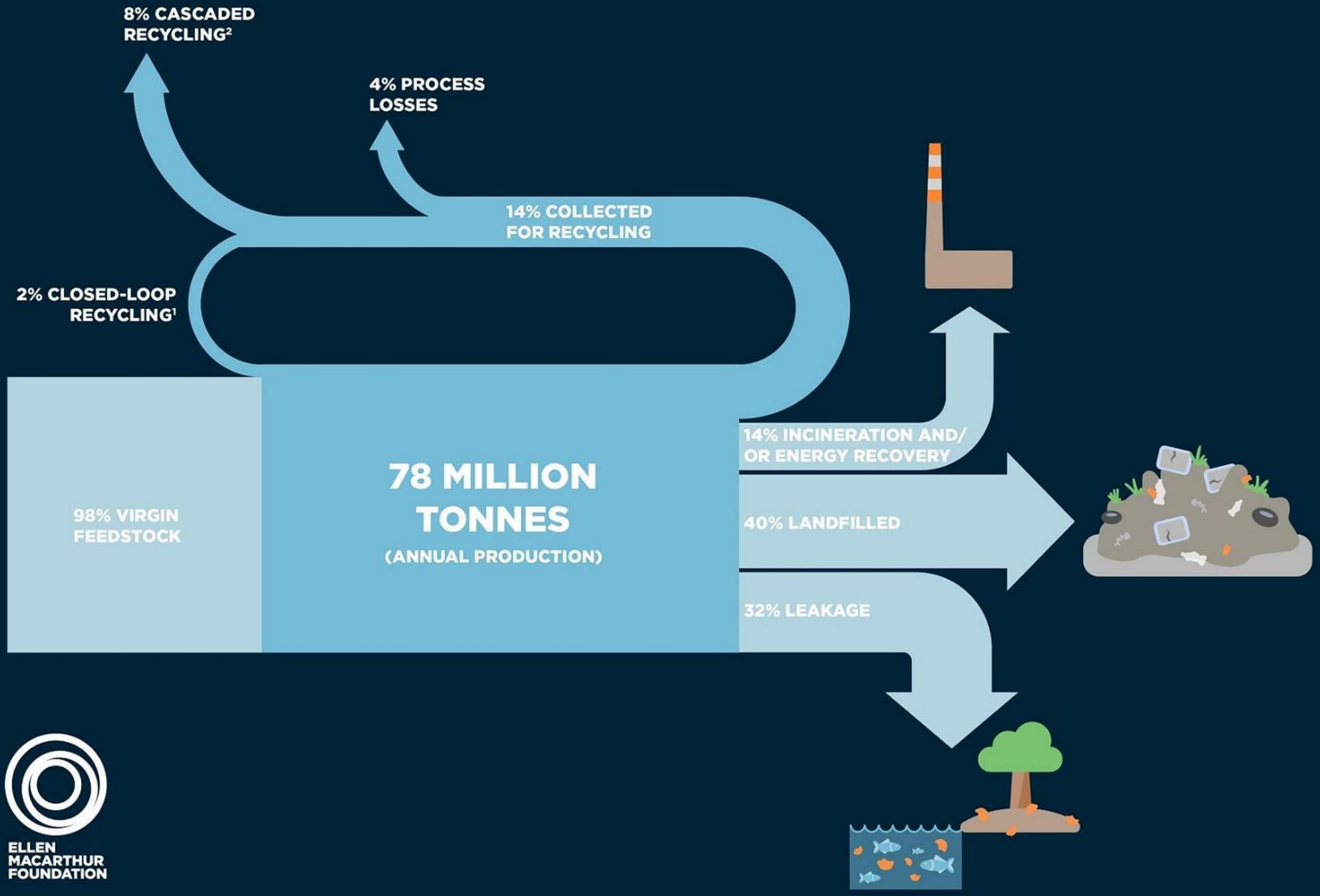
GREENPEACE

EFBW EUROPEAN FEDERATION OF BOTTLED WATERS

Producer responsibility

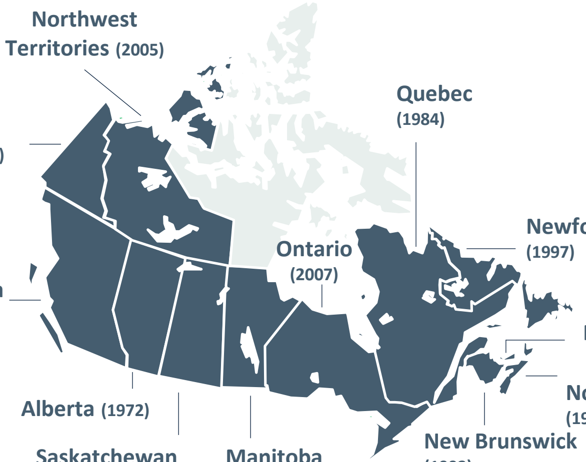
Governmental policies

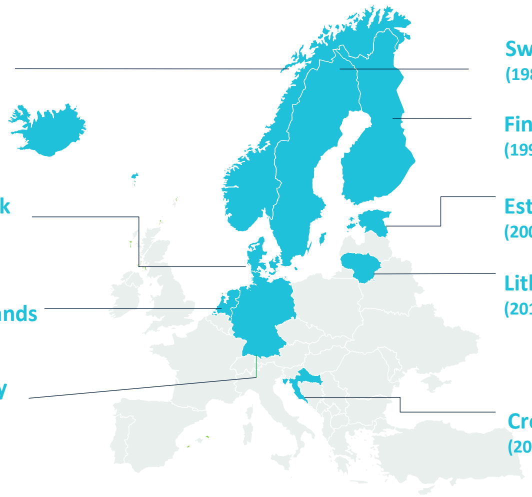
CLOSING THE PLASTIC PACKAGING LOOP REPRESENTS VAST POTENTIAL

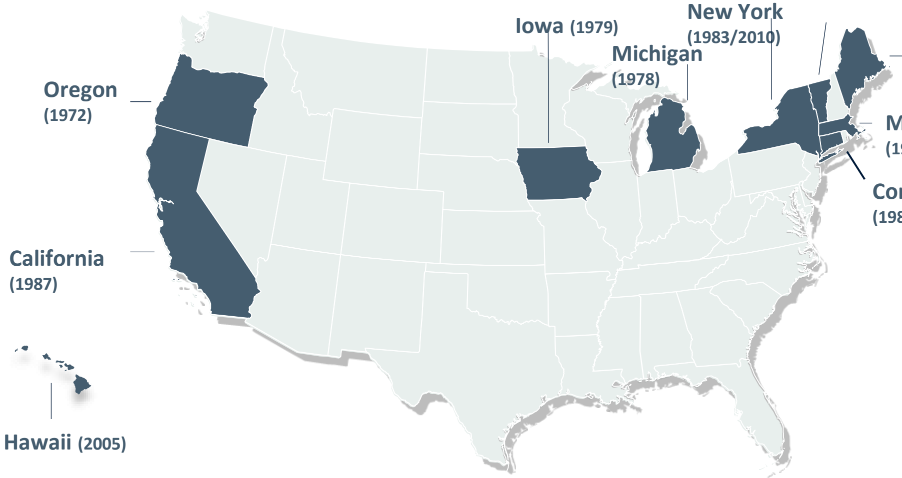


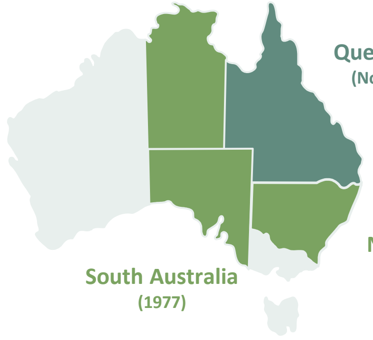
Source: AP

AN OVERVIEW OF CURRENT DEPOSIT MARKETS*





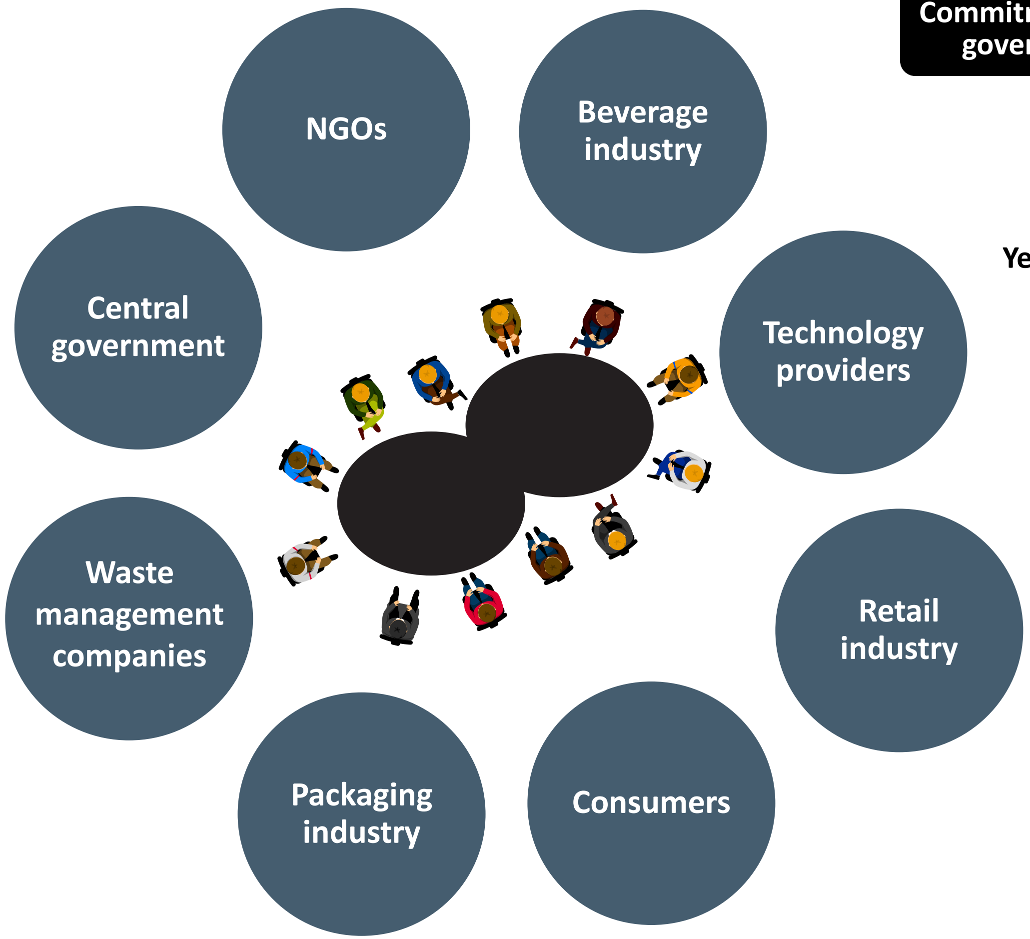




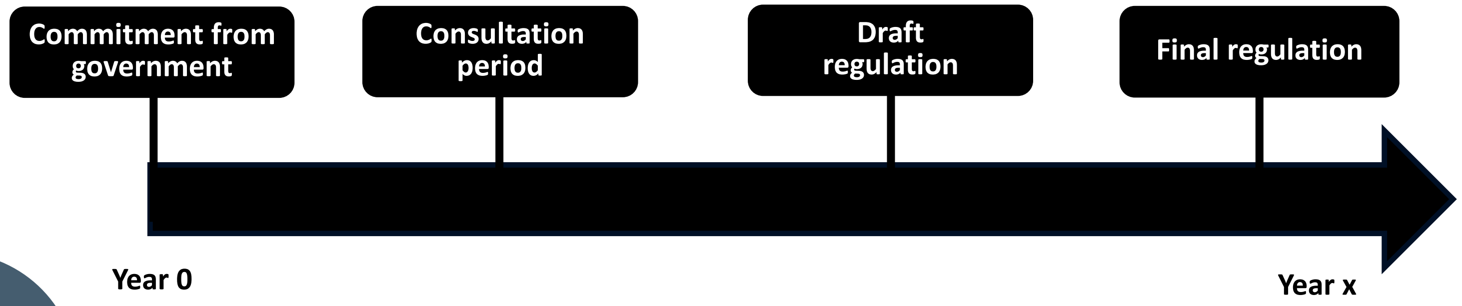
* In addition, some markets have refillable deposit systems such as: Austria, Belgium, Chile, Czech Republic, France, Hungary, Poland and South Korea

DESIGNING A DEPOSIT SCHEME – LENGTHY PROCESS FROM IDEA TO LAW

Many stakeholders around the table



Illustrative legislation process



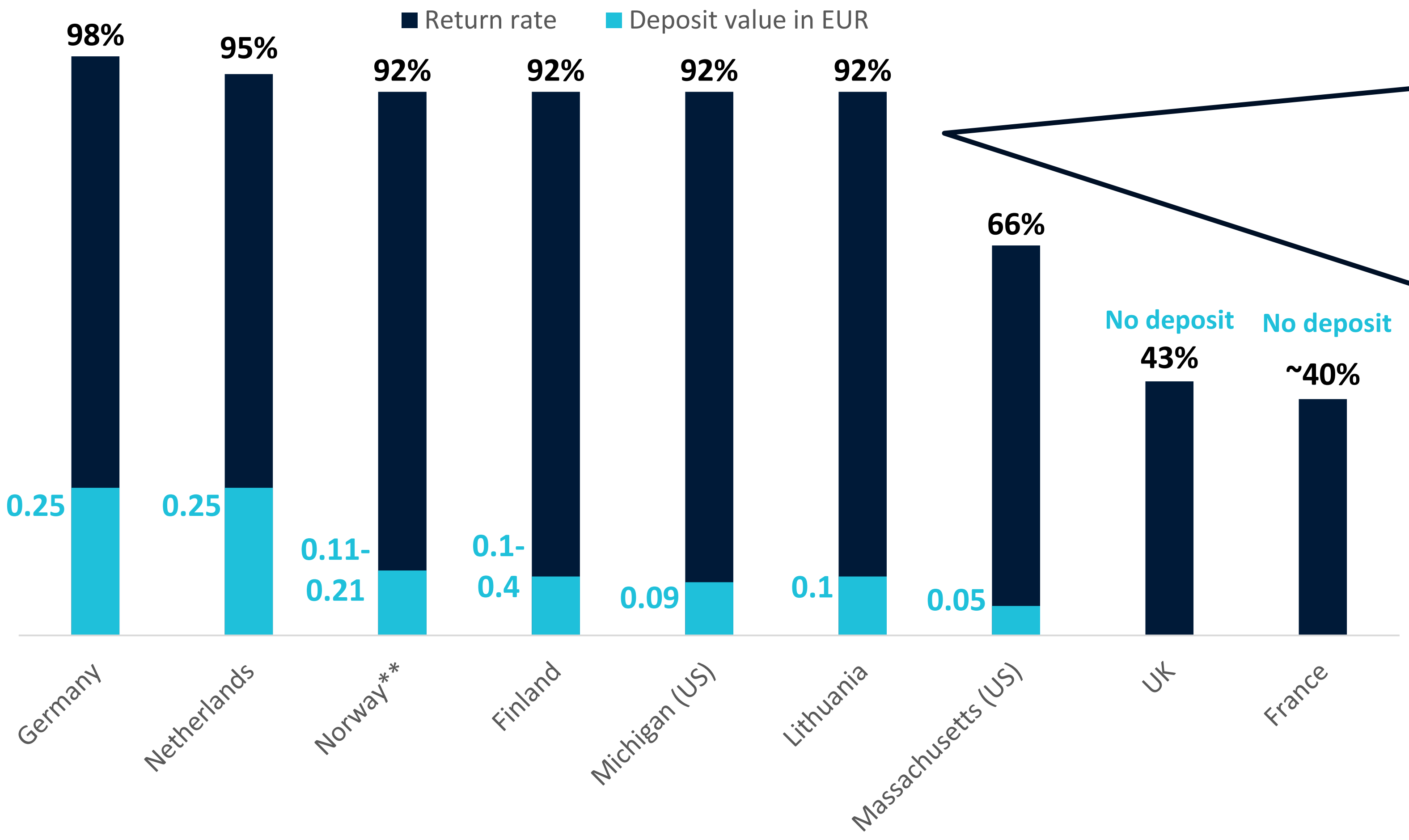
Many questions to address:

- 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

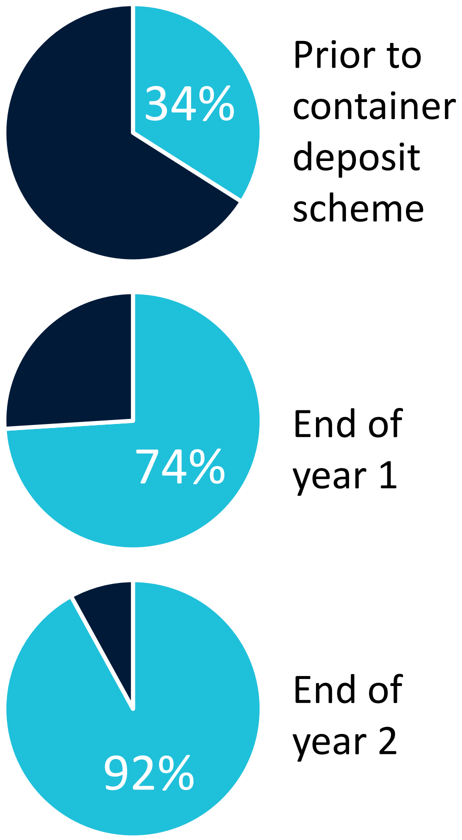
UPCOMING DEPOSIT MARKETS ON THE MOVE

CONTAINER DEPOSIT SCHEME – REAFFIRMED AS A PROVEN SOLUTION

Return rate and deposit value* for various container deposit schemes



Return rates in Lithuania



*Deposit values converted to EUR for comparison purpose

**Norway increased its deposit value to 0.21-0.31EUR since 01.09.2018

TOMRA

Source: Reloop, The Guardian, LeParisien, USAD

THE BENEFITS OF REVERSE VENDING IN A CONTAINER DEPOSIT SCHEME

1 Consumer buys beverage

2 Collection by reverse vending machines

3 Material processing

4 Beverage manufacturing

=

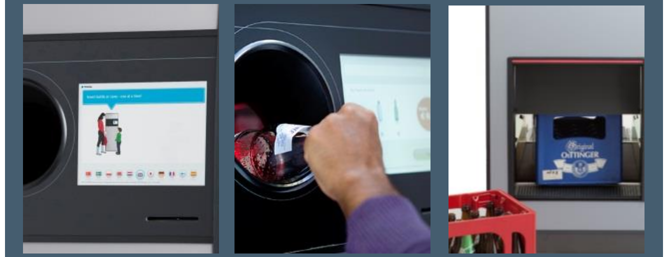
Convenient and engaging for customers

Better for business

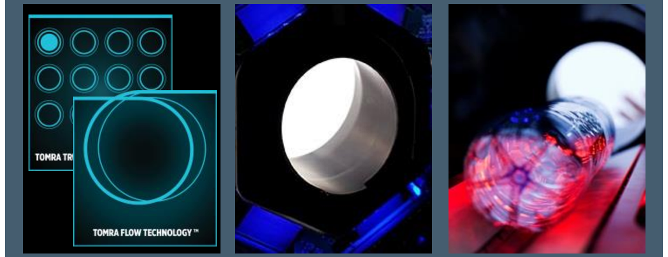
Better for environment

Source: Infinitum

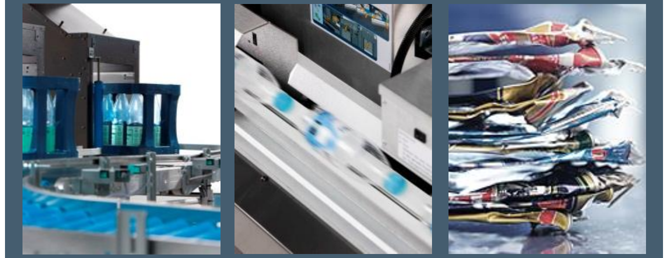
ELEMENTS OF A MODERN REVERSE VENDING SYSTEM



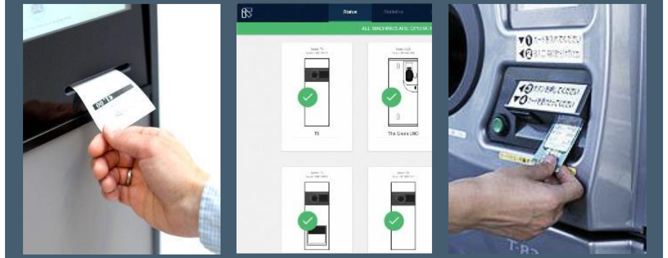
User communication



Recognition system

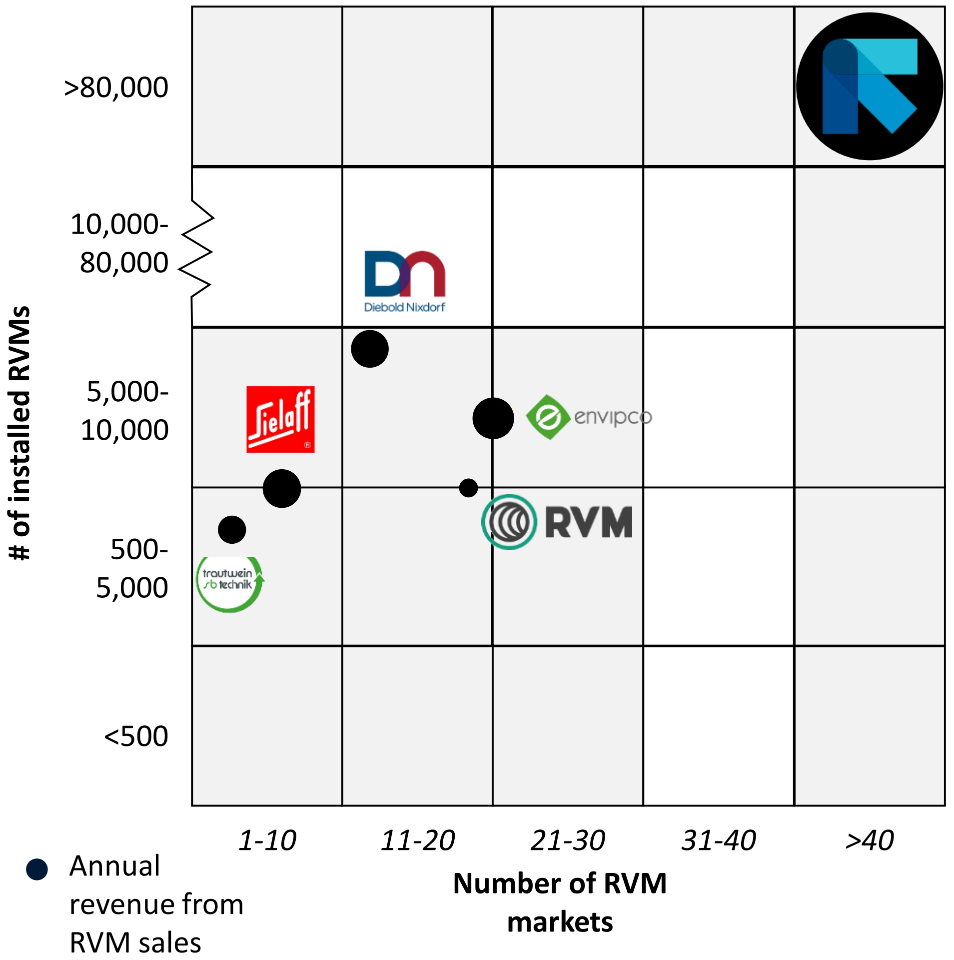


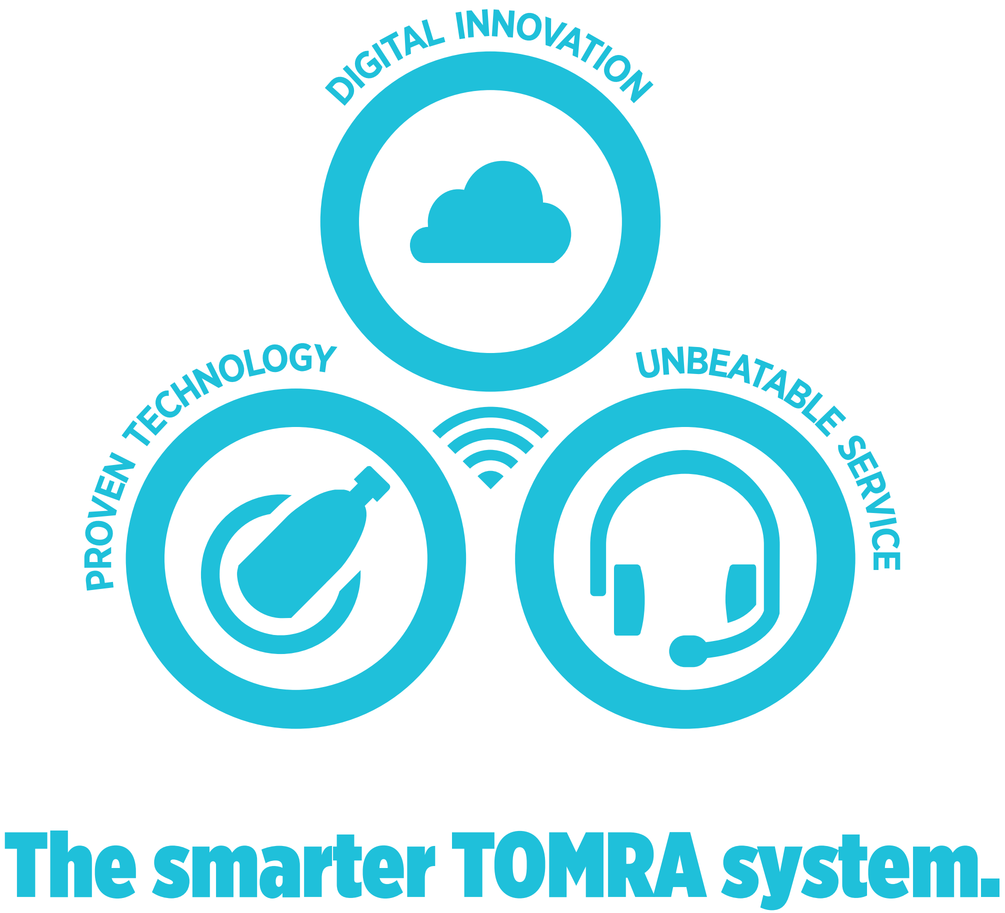
Sorting & processing



Data administration

UNDISPUTED MARKET LEADER WITHIN REVERSE VENDING TECHNOLOGY



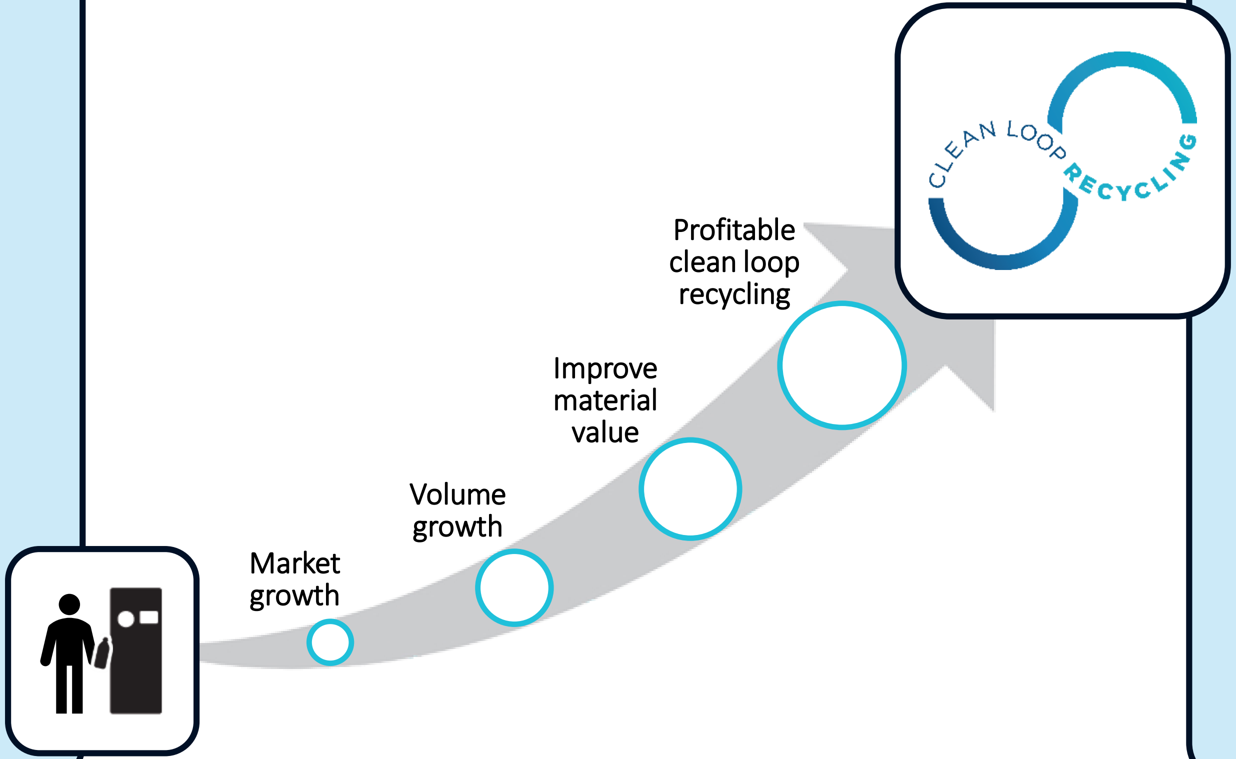


Source: TOMRA estimates and analysis

MOVING FROM A RVM SUPPLIER TO GLOBAL FRONTRUNNER AND THOUGHT LEADER WITHIN CIRCULAR ECONOMY

TOMRA 2018

- RVM supplier and service supplier
- Technology innovator and leader
- Niche leader



TOMRA 2030

- Business partner supporting customers' core processes
- Market driven thought leader
- Circular economy shaper

UTILIZE OUR COMPETITIVE ADVANTAGES TO GENERATE GREATER CUSTOMER VALUE

KEY STRENGHTS

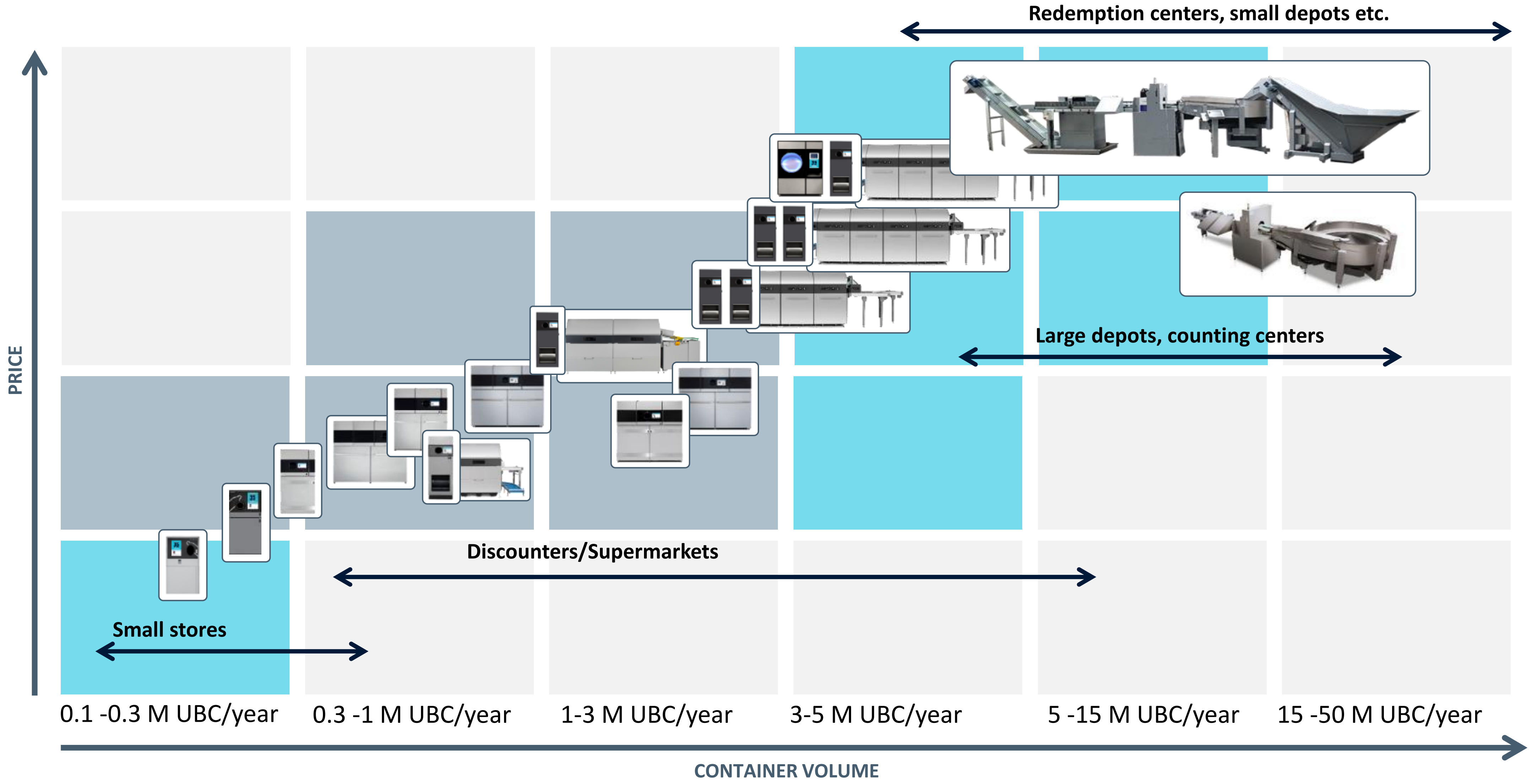
Product and service leadership	Production capacity and supply chain	Efficient new market entry	Financial strength to support throughput business models	Human resources to support the growth	Strenghten brand awareness

PLAYING FIELD

BASE MARKETS AND PRODUCT EXPANSION

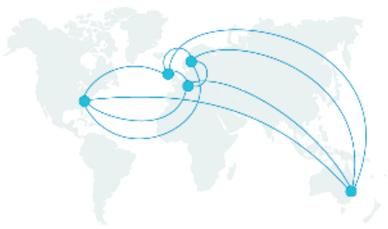
GEOGRAPHICAL EXPANSION

FLEXIBILITY AND SCALABILITY TO ENABLE NEW BUSINESS MODELS AND NEW MARKET ENTRY



A COMPLETE DIGITAL PORTFOLIO DESIGNED TO WIN

1. Win in new markets
2. Drive solutions for volume and throughput growth initiatives
3. Support growth and increase TOMRA's relevance in base markets
4. Industry leading fleet service & operations

Consumer Services	Applications and SaaS	Data Solutions	Service and Operational Tools	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.

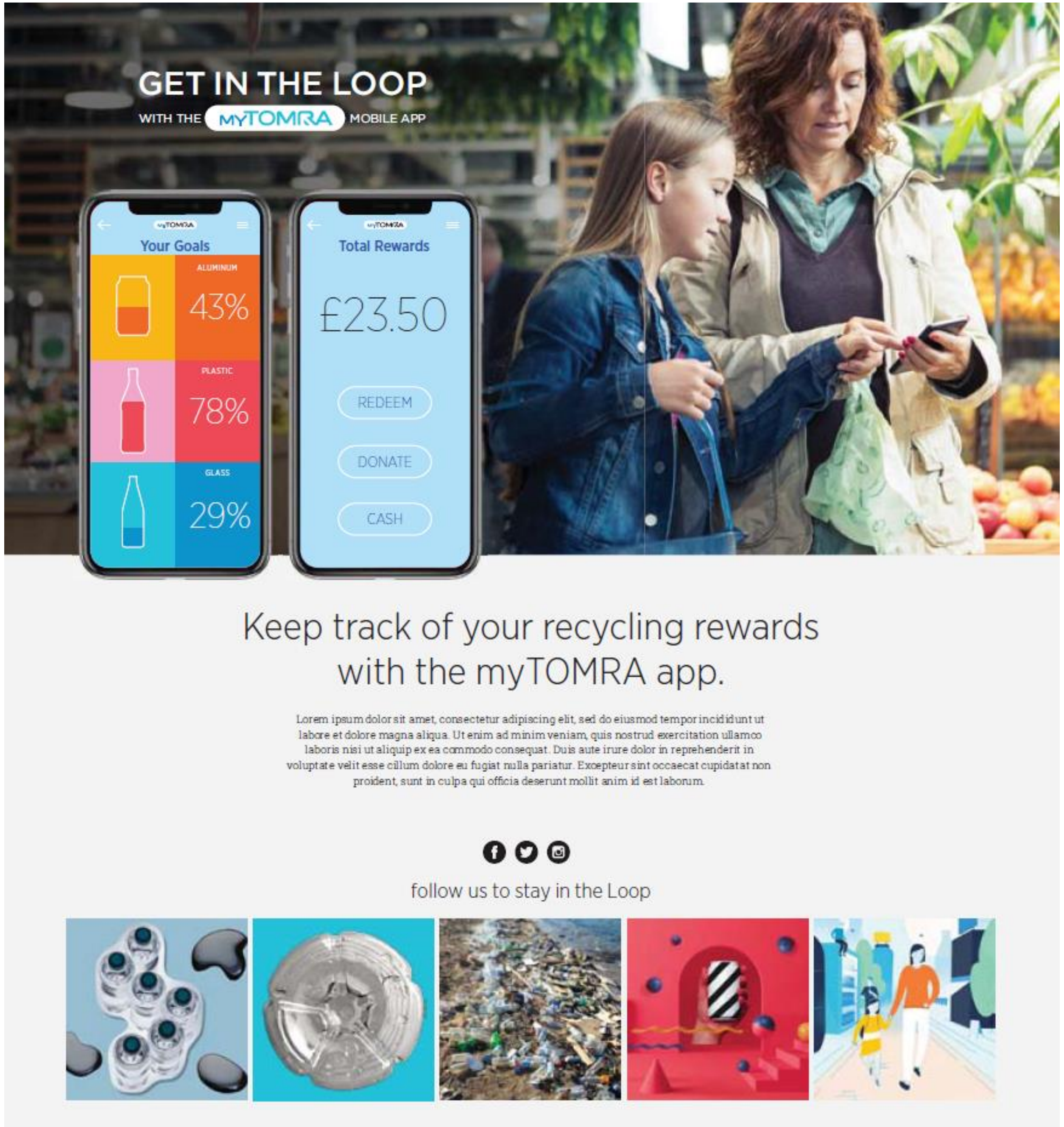
Partner with relevant players

Facilitate and educate

Modernize and enhance the consumer journey

Share stories and inspire change

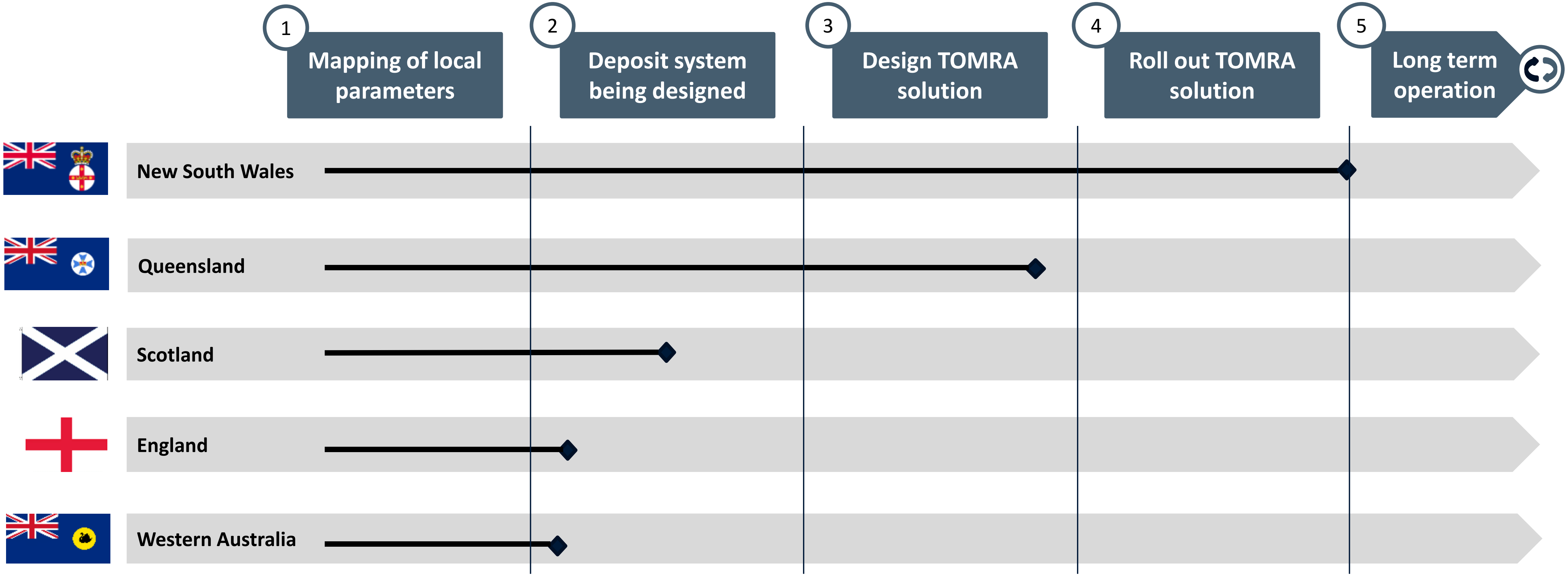
Drive community engangement



A DYNAMIC ORGANIZATION CATERED FOR GROWTH

	FROM	TO
SALES & MARKETING	Machine centric 	Holistic business partner 
PRODUCT DEVELOPMENT AND DESIGN	Machine centric 	Holistic business partner 
SUPPLY CHAIN	Decentralized	Dedicated and centralized
GEOGRAPHICAL PRESENCE	HQ Regions	HQ Regions New Markets
PRODUCTION	TOMRA (Norway) Third parties TOMRA (Asia)	TOMRA (Norway) Third parties (scalable) TOMRA (Asia)

LEVERAGE EXISTING CAPABILITIES FOR SUCCESS INTO NEW MARKETS

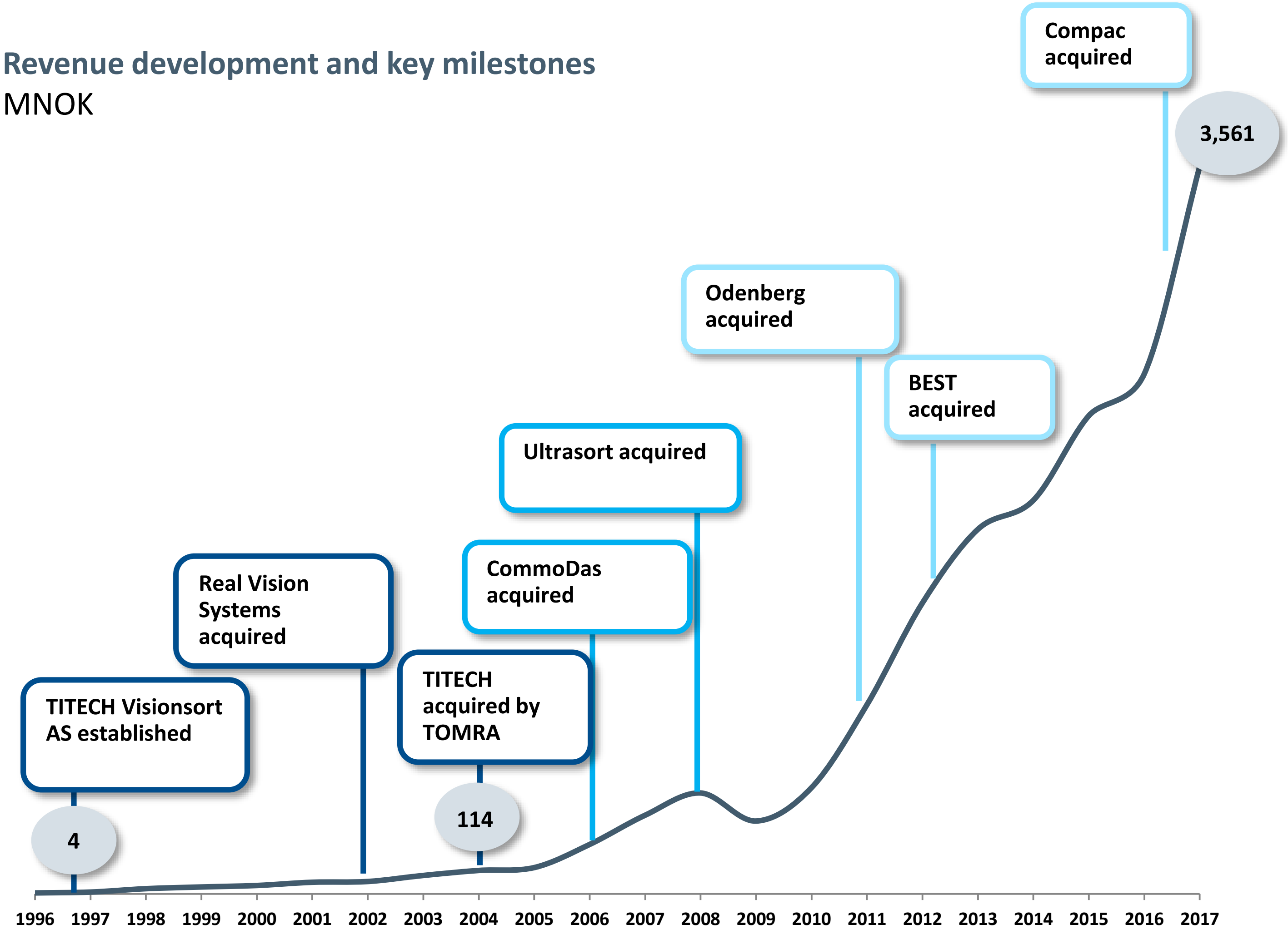


Utilize existing resources and knowledge base and add on local business unit to ensure optimal roll-out

TOMRA SORTING SOLUTIONS

STRONG REVENUE GROWTH SINCE INCEPTION IN 1996

Revenue development and key milestones
MNOK

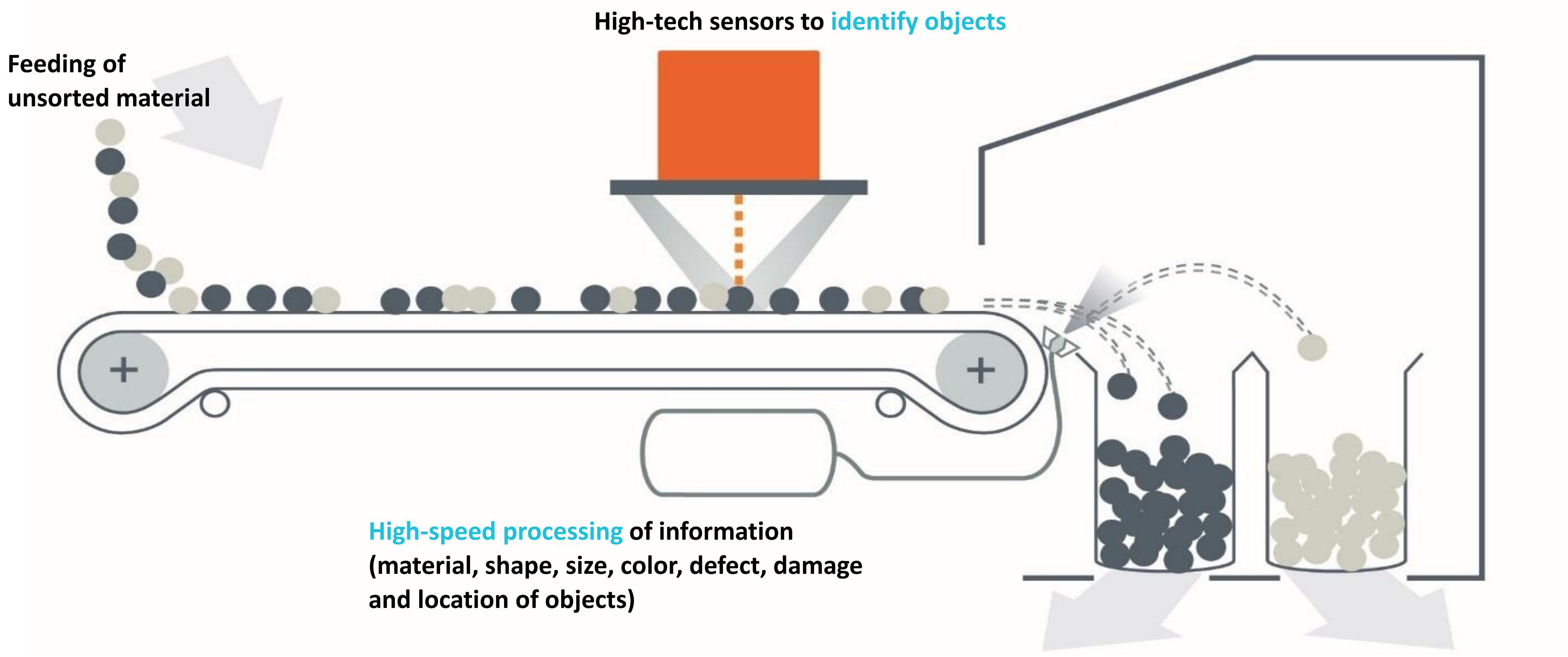


- Total revenue growth (organic plus inorganic) CAGR of ~30% per year from 2004-2017
  - Average annual organic growth for the same period was ~17%

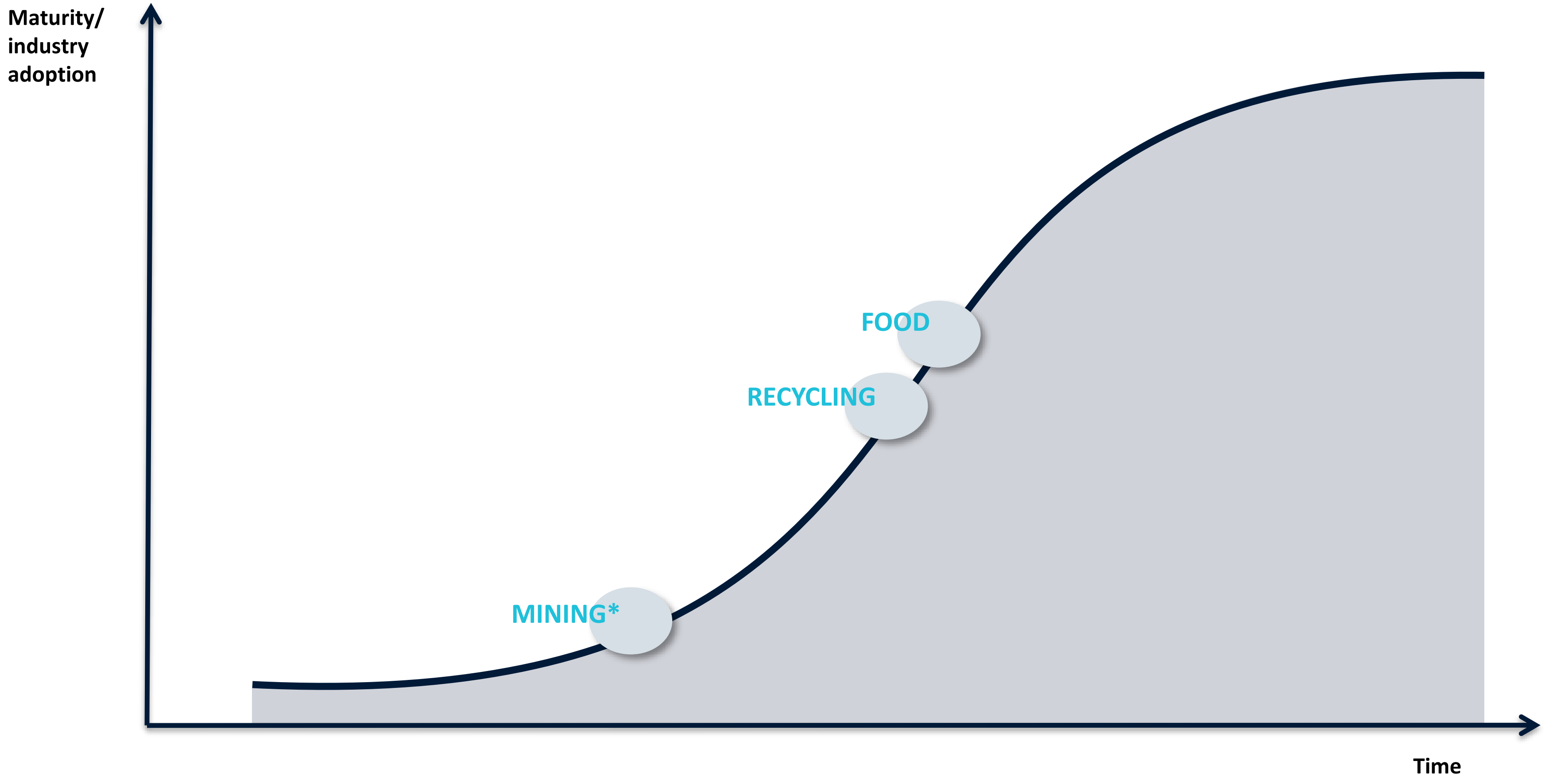
- Technology base and segment/application knowledge expanded both through acquisitions and in-house ventures

HOW DOES SENSOR BASED SEPARATION WORK?

- High-tech sensors to **identify objects**
- **High speed processing** of information (material, shape, size, color, defect, damage and location of objects)
- **Precise sorting** by air jets or mechanical fingers
- Product **specific equipment design** often including multiple technologies to maximize sorting efficiency

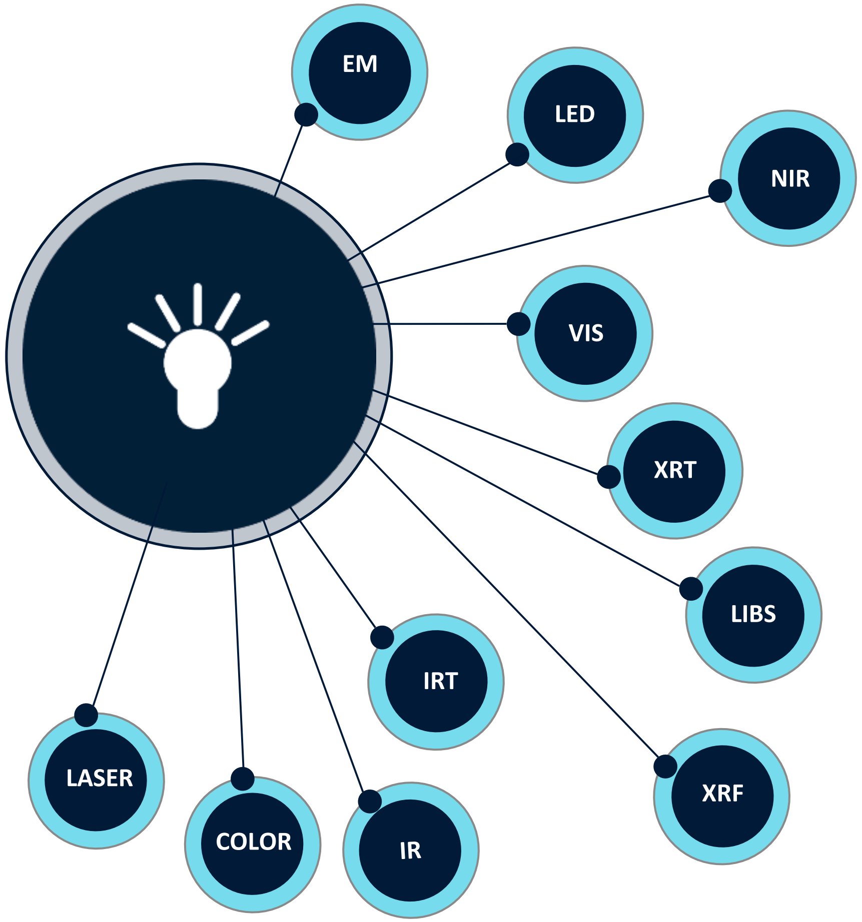


ADOPTION OF SENSOR-BASED SORTING AT DIFFERENT MATURITY LEVELS



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

A COMMON SENSOR BASED TECHNOLOGY PORTFOLIO



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

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

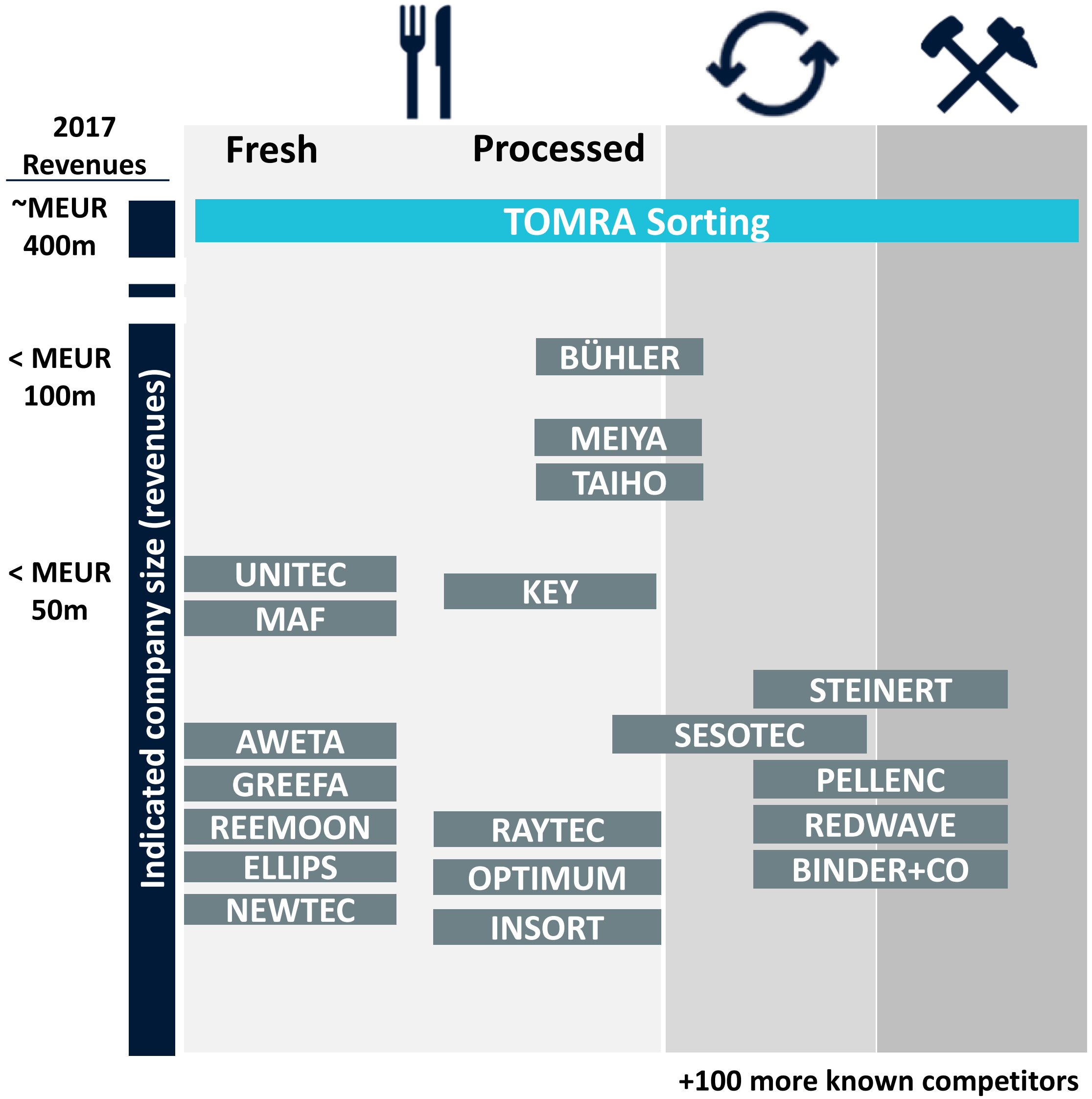
TITECH NIR + BEST LASER

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

THE BENEFITS OF BEING TOMRA SORTING



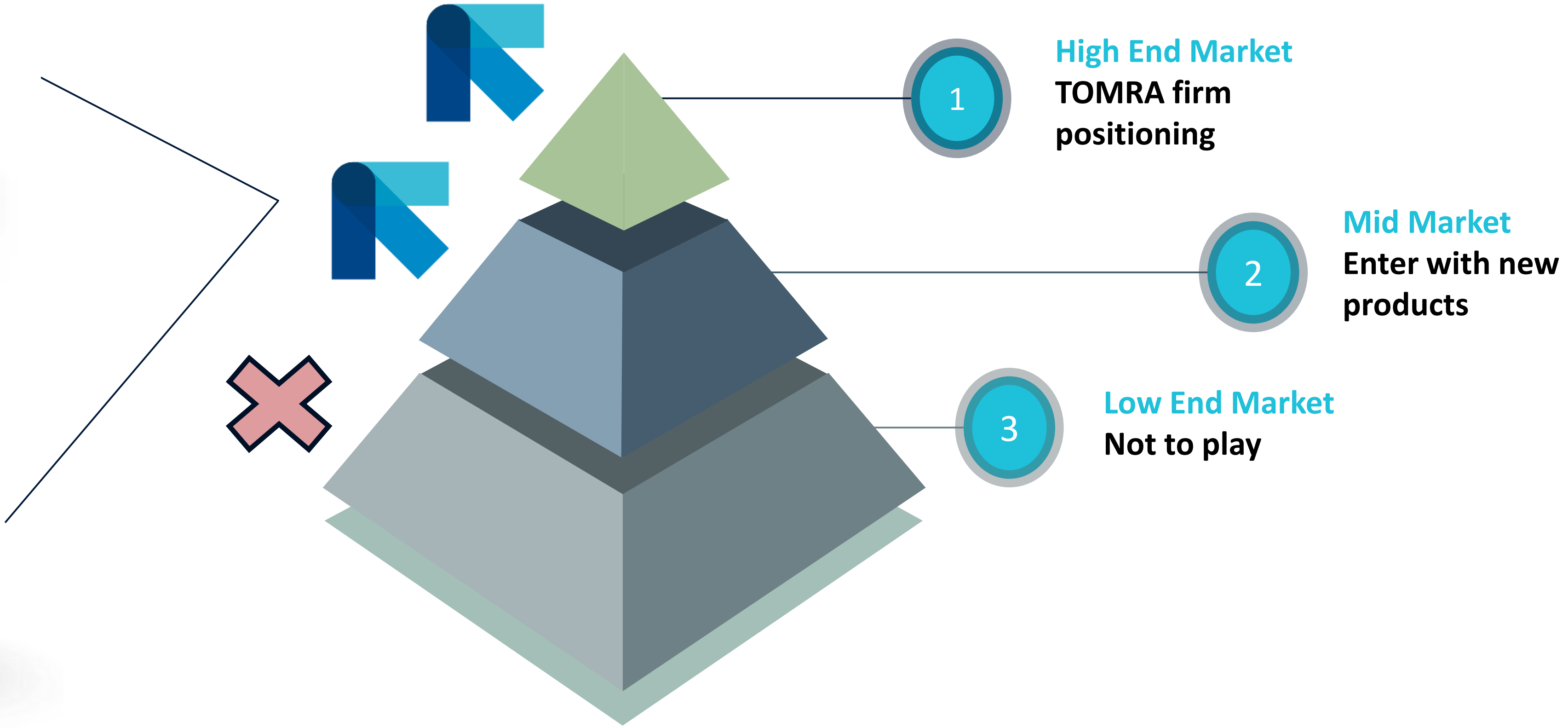
Our position: A solid platform for further growth

ENTERING NEW MARKETS THROUGH MID-MARKET STRATEGY

Creating competitive offering to fast growing mid-market

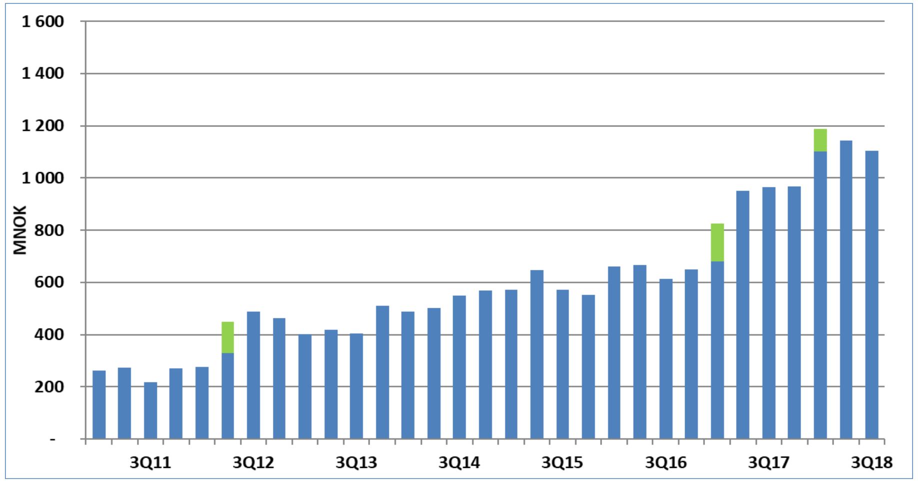
Food channel sorter

Recycling Flake Sorter

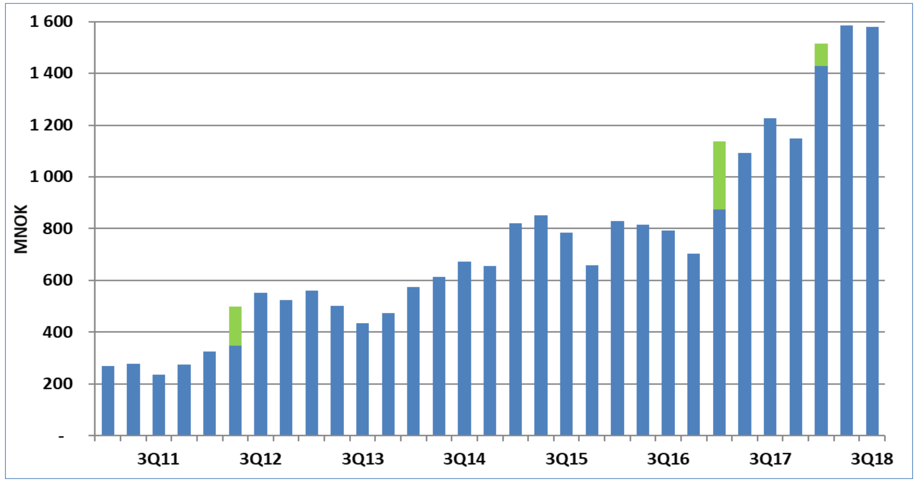


DEVELOPMENT IN ORDER INTAKE AND ORDER BACKLOG

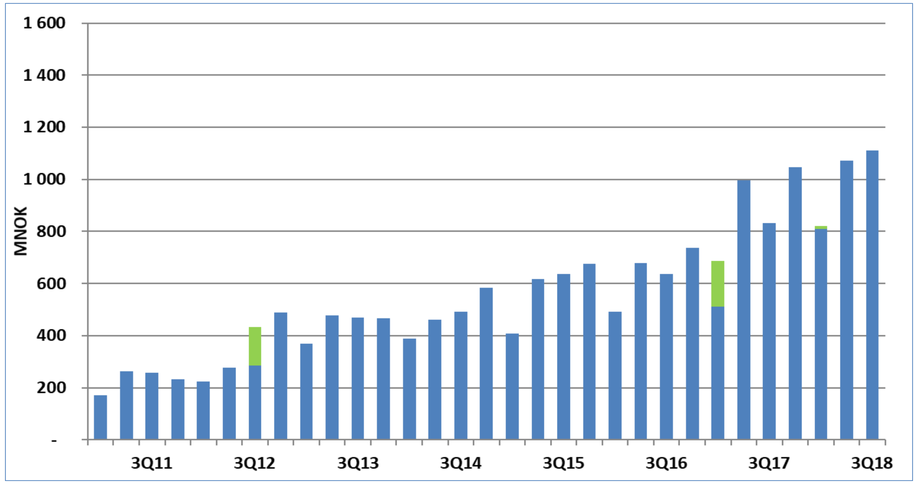
ORDER INTAKE



ORDER BACKLOG



REVENUES



Organic Inorganic

- TOMRA Sorting Solutions (TSS):
  - Revenues of 1,112 MNOK, up from 831 MNOK last year
  - Order intake of 1,105 MNOK in the quarter, compared to 964 MNOK last year
  - Despite all time high revenues in the quarter, a strong order intake led to healthy order backlog of 1,579 MNOK by the end of third quarter

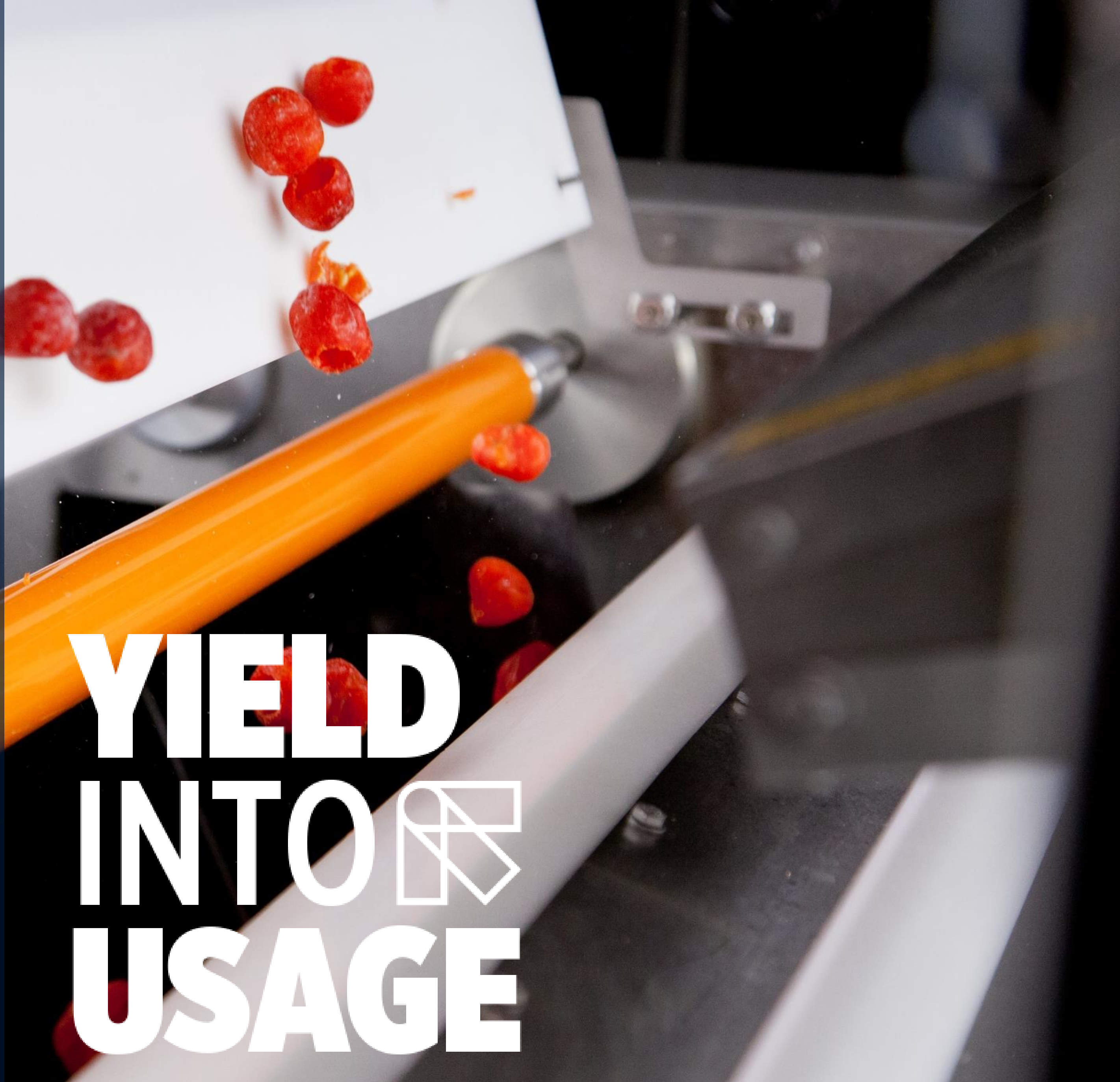
- Estimated backlog conversion ratio in 4Q18: 80%*

* Based upon current production and delivery plans, the revenues in 4Q18 are estimated to be approximately 80% of order backlog at the end of 3Q18

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**

TOMRA SORTING SOLUTIONS | FOOD



Sources: WEF

FOOD VALUE CHAIN IS GETTING MORE COMPLEX AND DRIVES THE FOOD MARKET TOWARDS NEW SOLUTIONS

Food waste

Food quality and safety

Brand promise

Traceability

Production

Distribution

Consumption

AUTOMATION CONTINUES ON A STRONG GROWTH TRAJECTORY

Robotics become cheaper, more advanced and user-friendly

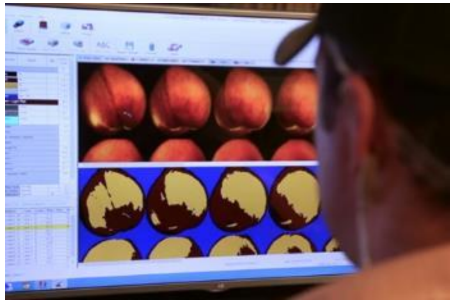
From…

To…

Higher labor cost and labor shortages

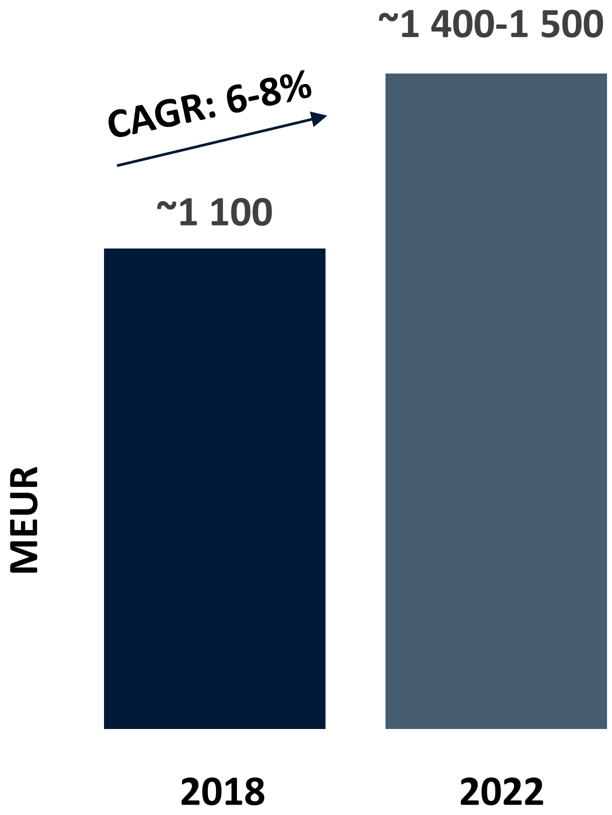
Ensure quality and safety

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

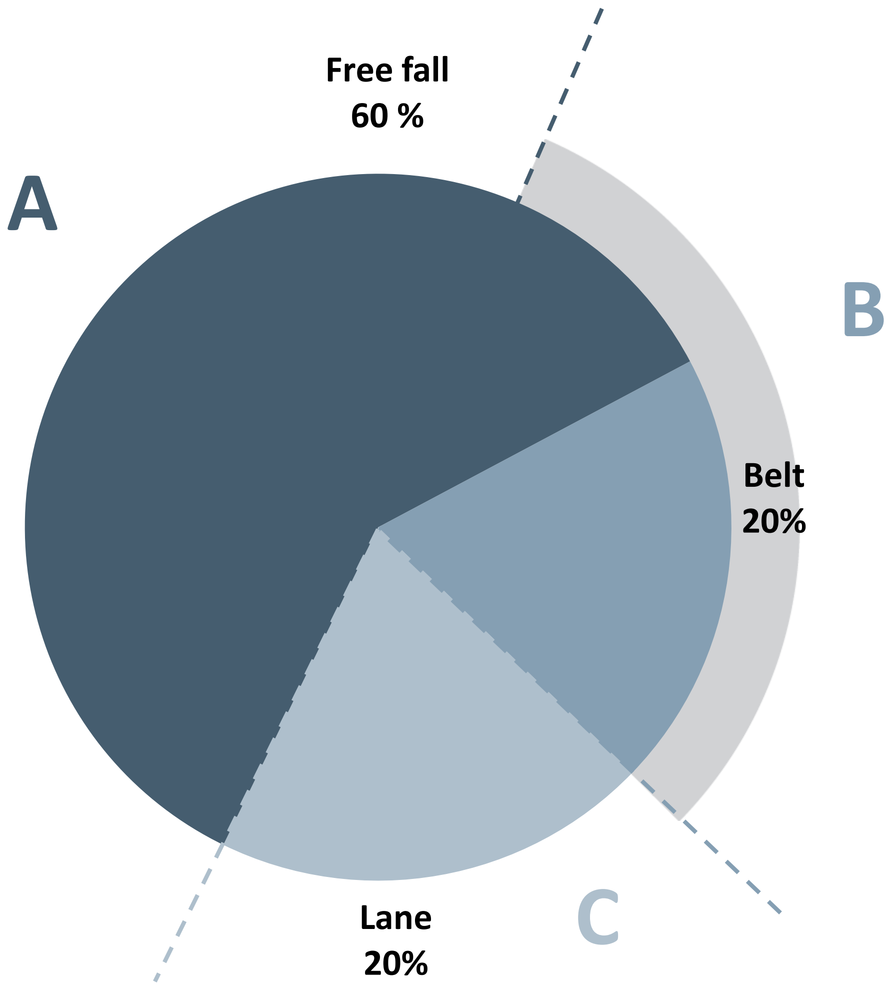
Fresh and processed segment

AFFECTING FACTORS

- Weather conditions
- Raw material pricing
- Manual labor cost
- Living standards

Source: TOMRA estimates and analysis

THREE WAYS OF SORTING WITHIN THE FOOD SEGMENT



Free fall (Channel / Chute)	
Application	Seeds, rice, grains
Companies	Buhler, Key, **Best**, Satake, Daewon, Hefei, Orange
Sensor tech.	Camera (simple)

Belt	
Application	Prepared /preserved veg. and fruit
Companies	**Best**, Key, **Odenberg**, Raytec
Sensor tech.	Several (complex)

Lane	
Application	Fresh produce
Companies	MAF, Aweta, Greefa, Compac
Sensor tech.	Several (medium)

Note: Piechart showing estimated total revenue within the food sorting segment

TOMRA HAS ESTABLISHED THE BROADEST FOOTPRINT WITHIN FOOD SORTING

A	B	C
	TOMRA SORTING SOLUTIONS | FOOD	
Free fall	Belt	Lane

SK
Rice, Seeds & Kernels

NDF
Nuts & Dried Fruit

PFV
Processed Fruits & Veg

Fresh
Fruit, Vegetables and Potatoes

Circa 40%* of annual global sorter sales revenue

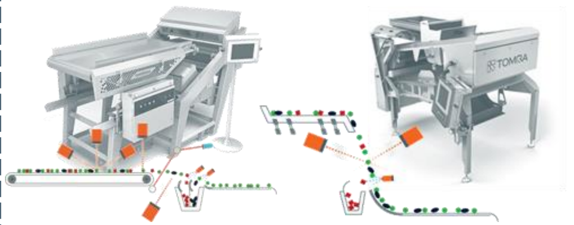
Circa 30%* of annual global sorter sales revenue

Circa 25%* of annual global sorter sales revenue

IN HOUSE DEVELOPED

CHANNEL

CURRENT FOCUS



BELT

CHUTE

M&A

compac

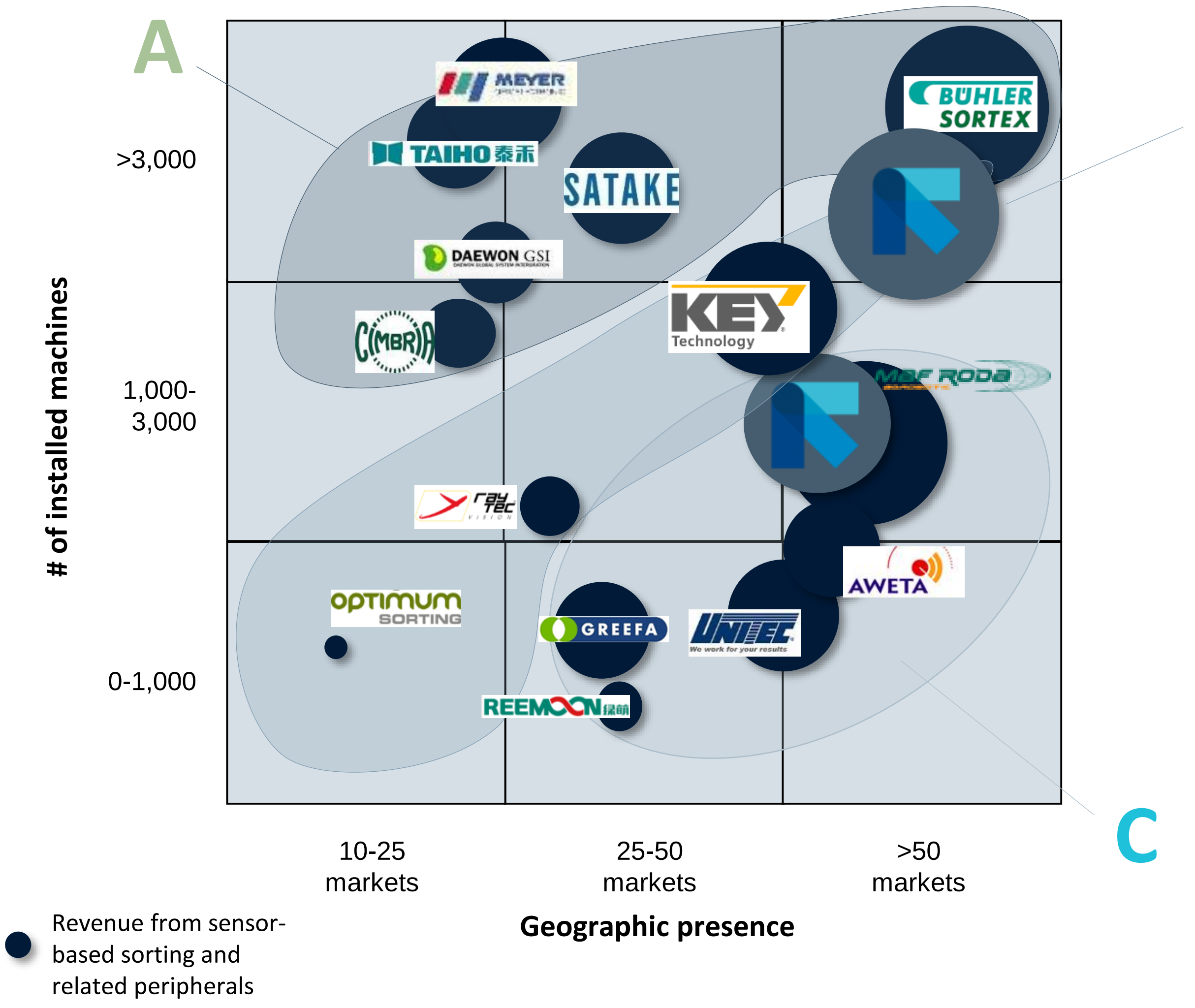
LANE/MULTI-DROP

BULK SORTING

SINGULATED SORTING

*Approximately 5% of annual global sorter sales revenue comes from other segments, like confectionary

FOOD COMPETITIVE LANDSCAPE



TOMRA competitive positioning

- Size (revenues)
- Widest range of applications (150+)
- Broadest technology base
- Geographic reach (~80 countries)
- Market share in targeted segments
- Bulk Sorting market share*: 25%
- Lane Sorting market share*: 25%

Source: TOMRA estimates and analysis *Optical Sorting

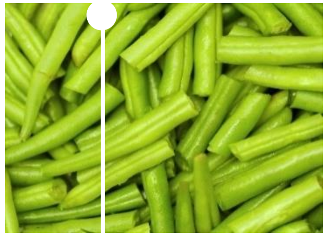
FOOD: APPLICATIONS AND SENSOR TECHNOLOGY

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

MEAT

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

LASER, CAMERA, BSI, INTERACTANCE SPECTROSCOPY

GUMMIES

LASER, CAMERA

TOBACCO

LASER, CAMERA

OUR FOOD SORTING CUSTOMERS

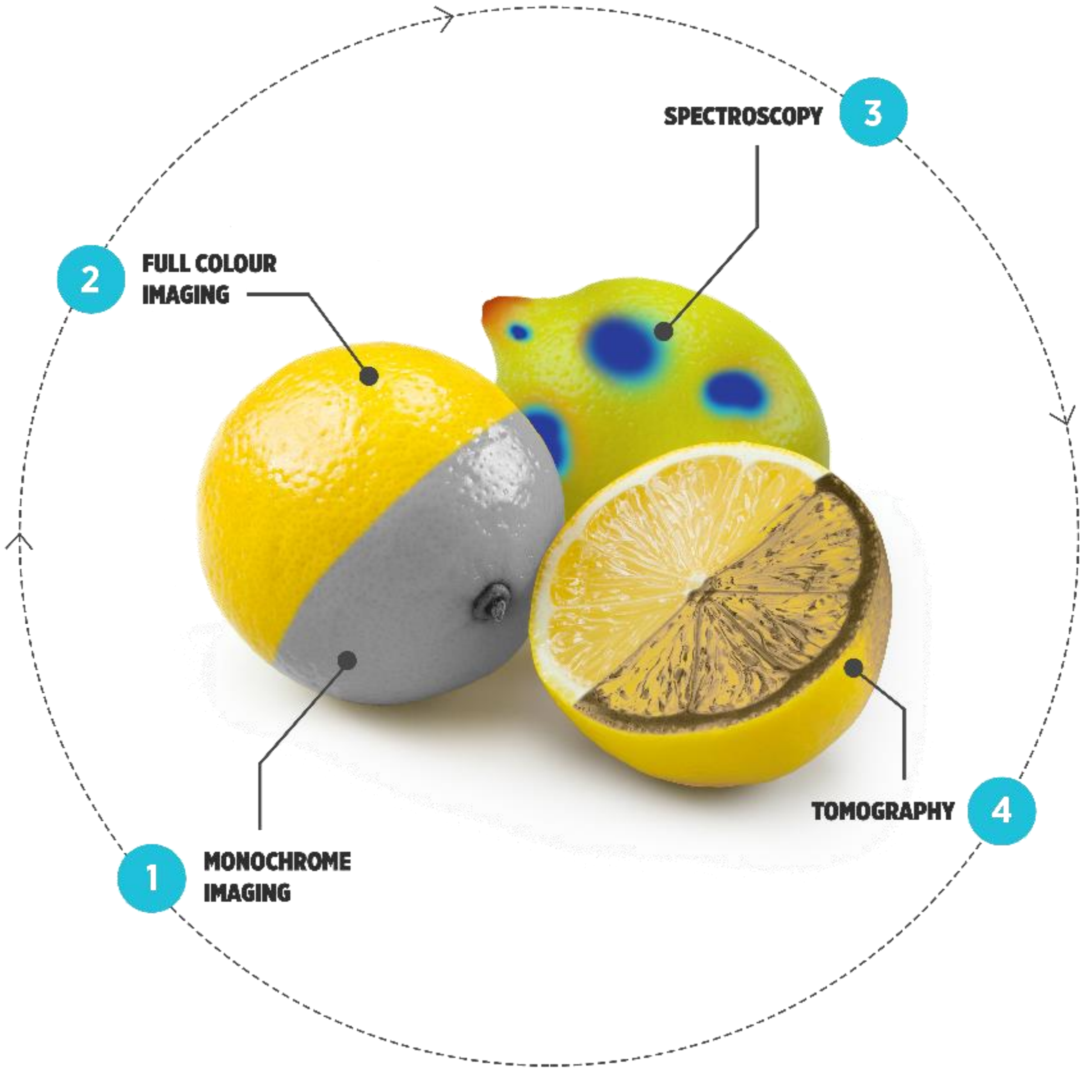
TOMRA SORTING SOLUTIONS | FOOD

Blue Diamond Almonds
Tyson
PepsiCo
Utz
Paramount Farms Pistachios & Almonds
ConAgra Foods
Sun-Maid
Bakkavör
McCain
Bonduelle
Nestlé
Sunsweet
SPC Ardmona
Heinz
Del Monte Quality
Baxters Food Group
Simplot
Branston
Pom' Alliance
ardo

compac

Kings River Packing
Sun Orchard Brand Apples
Schoonbee Landgoed unparalleled quality
Wonderful citrus
Univeg Cycle of Freshness
Eastenday Farms
costa fresh is our passion
OPAC
Wonderful halos
Calavo
Del Monte Quality
Trevelyan's where growers come first
Crasborn
Primavera
Washington Fruit & Produce Co.
Mr Apple New Zealand
EastPack World Class Orchard to Market
Eco-Farms Certified Organic
Fruit Day 天天果园
Titan Farms
Zespri Kiwifruit
Fowler Packing
Sunkist
West Pak Avocado, Inc.
Zirkle Fruit Company

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

TOMRA SORTING SOLUTIONS | RECYCLING

THE CIRCULAR ECONOMY DRIVES A LEGISLATIVE PUSH…

Continued ambitious EU regulations and recycling targets: Attracts capital and drives investments

"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%**

Source: European Commission, RecyclingToday

…PROMOTING RECYCLING

2018 CIRCULAR ECONOMY PACKAGE

	Description
Waste Framework Directive	• 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.
Packaging and Packaging Waste Directive	• Rules on the production, marketing, use, recycling and refilling of containers of liquids for human consumption and on the disposal of used containers • 2015 revision includes lightweight plastic carrier bags
Waste Electrical and Electronic Equipment (WEEE) Directive	• Collection, recycling and recovery targets for all types of electrical goods • 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
Landfill Directive	• The objective of the Directive is to prevent or reduce as far as possible negative effects on the environment from the landfilling of waste • In particular: impact on surface water, groundwater, soil, air, and on human health by introducing stringent technical requirements for waste and landfills.
End of Life Vehicle (ELV) Directive	• Aims at reduction of waste arising from end-of-life vehicles • The scope of the directive is limited to passenger cars and light commercial vehicles

Targets and measures

- A common EU target for recycling 60% of municipal waste by 2030
- A common EU target for recycling 70% of packaging waste by 2030
- A binding landfill target to reduce landfill to maximum of 10% of municipal waste by 2030
- Separate collection of textiles and hazardous waste by 2025
- 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

Source: www.ec.europa.eu, letsrecycle.com, www.Eurometrec.org, wastemanagementworld.com

...AND ALSO CREATES A MARKET PULL

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

Follow their lead

NEW PLASTICS ECONOMY

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

RECYCLING: MARKET GROWTH EXPECTATIONS

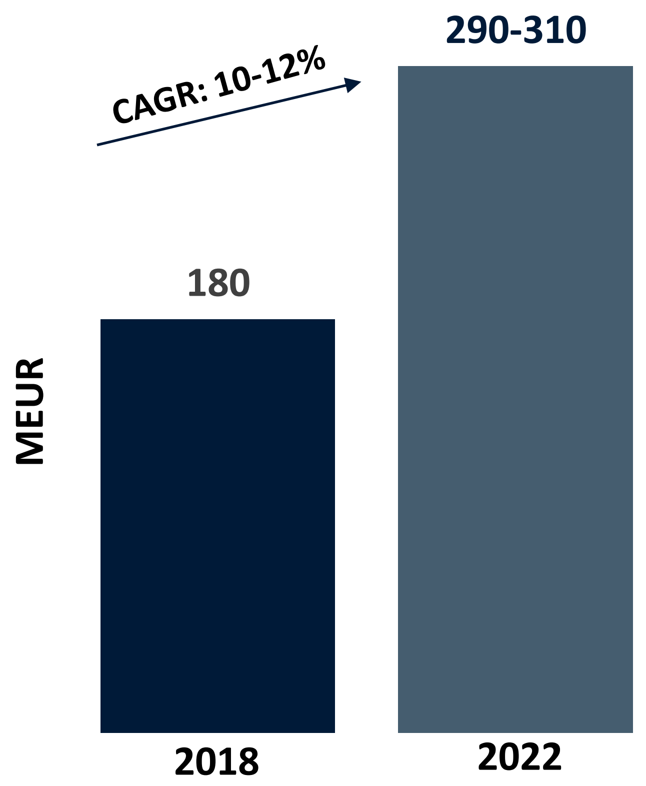
MARKET DEFINITION RECYLING

Sensor-based sorting equipment

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

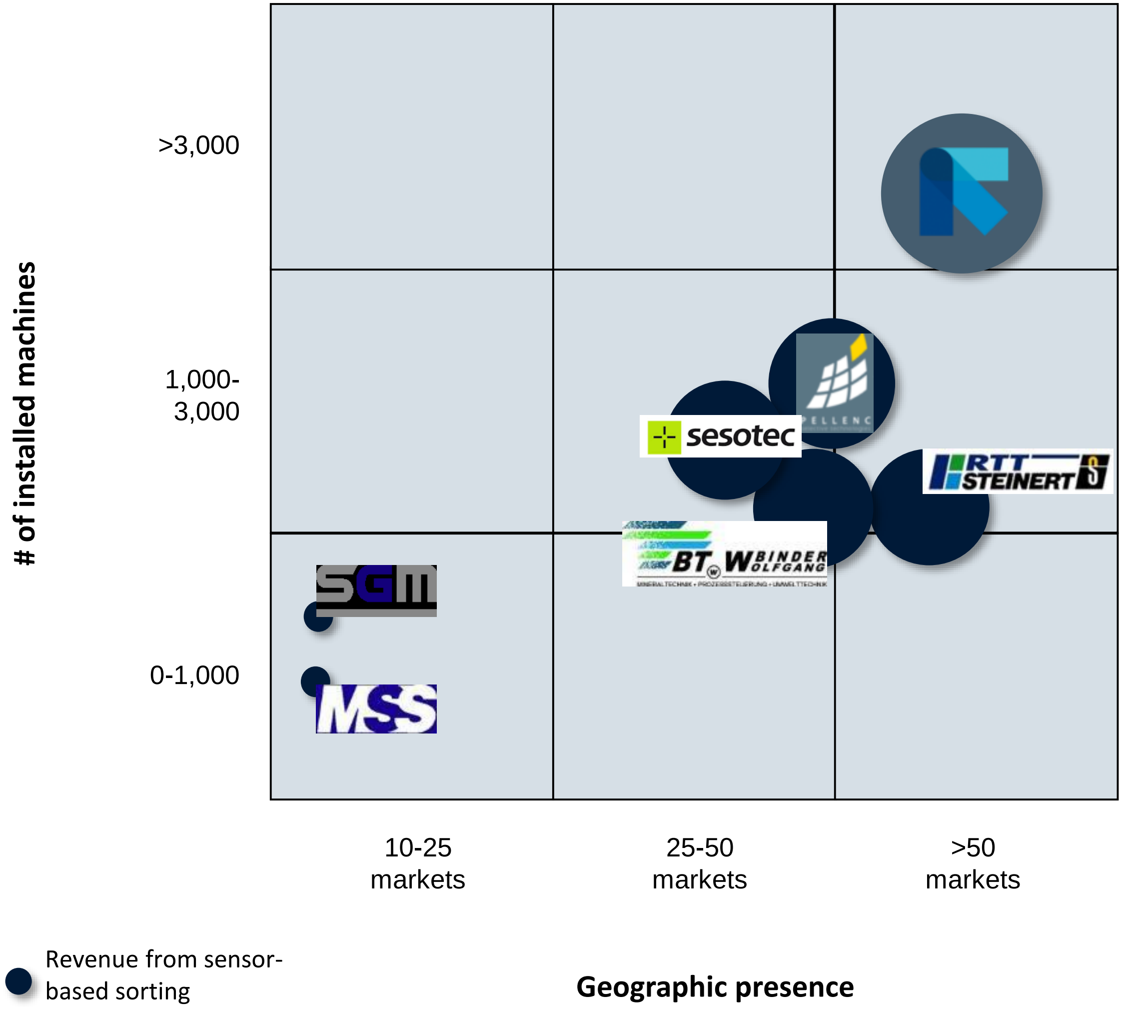
AFFECTING FACTORS

Tightening regulation	Access to capital
Consumer awareness	Commodity price fluctuations



Source: TOMRA estimates and analysis

RECYCLING: COMPETITIVE LANDSCAPE



TOMRA competitive positioning

- Largest installed base
- Highest revenues
- Broadest technology platform
- Highest number of applications and markets served
- Leading brand
- **Market share: 55-65%**

Source: TOMRA estimates and analysis

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

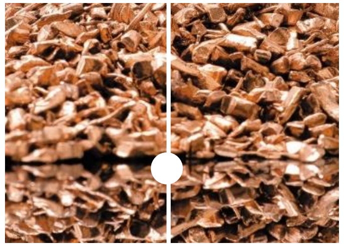
NIR, VIS, EM

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

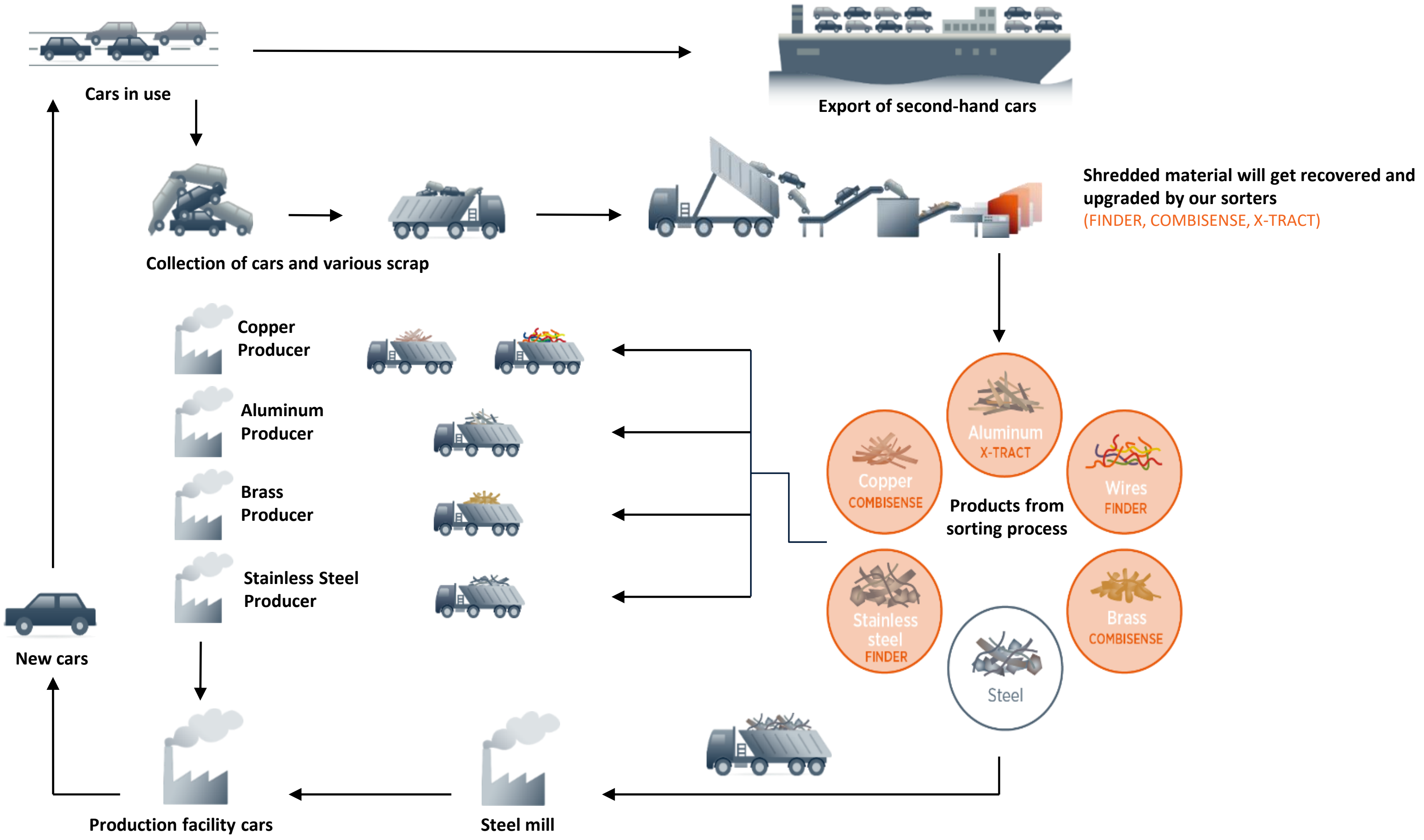
PAPER

Deinking, cardboard,
carton

NIR, VIS, EM

SENSOR-BASED TECHNOLOGY CREATES VALUE IN VARIOUS PARTS OF A RECYCLING PROCESS

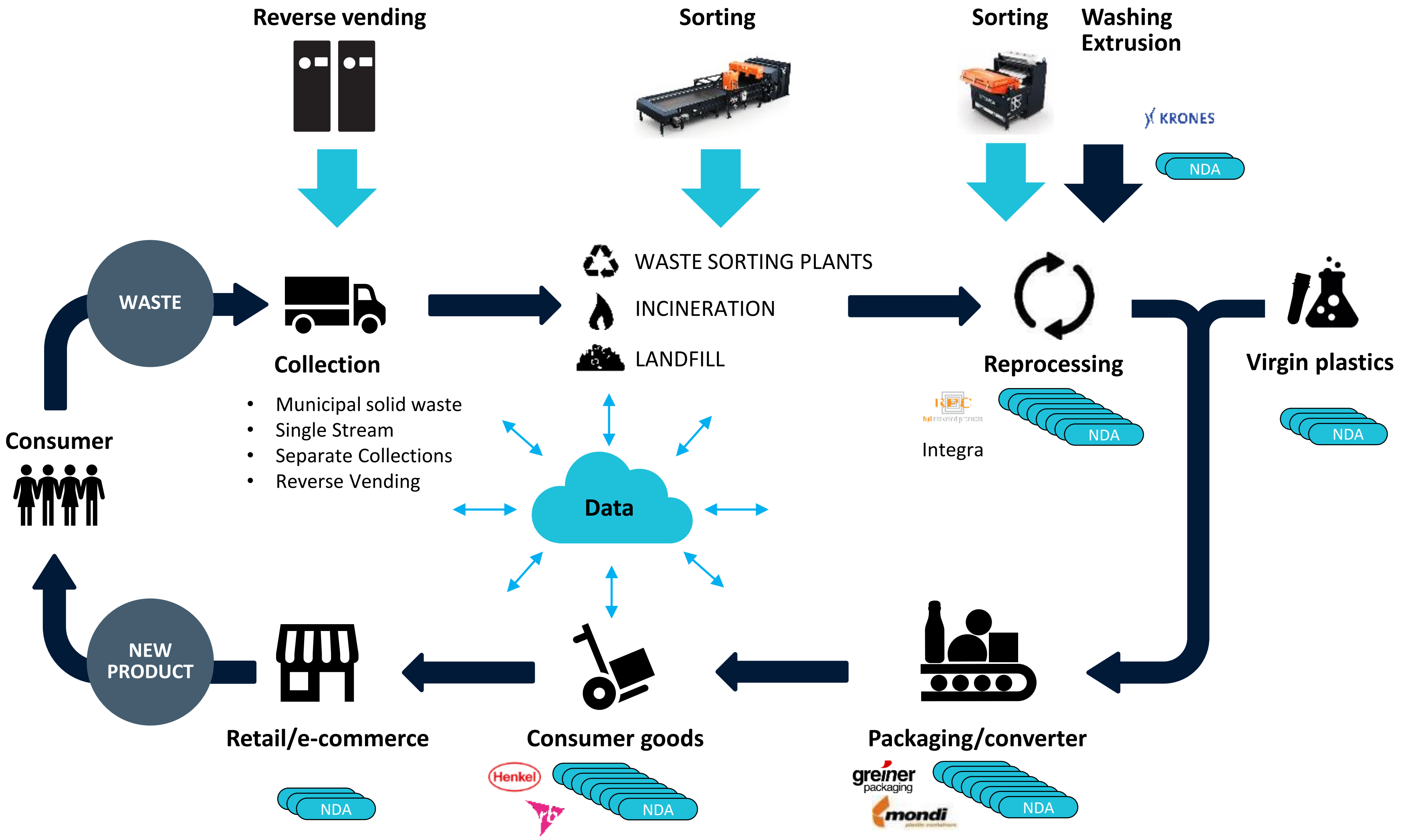
Life cycle of Steel from End-of-life vehicles



INDUSTRIALIZING THE PROCESS FOR RECYCLED PLASTIC

GOALS

- Create a **demand** for the plastic through a process
- Output to be of high quality in order to **replace** virgin material
- **Extract plastics** from all waste streams (incl. landfill and incineration) to satisfy demand
- **Feasibility proven, working with multiple partners on commercialization**



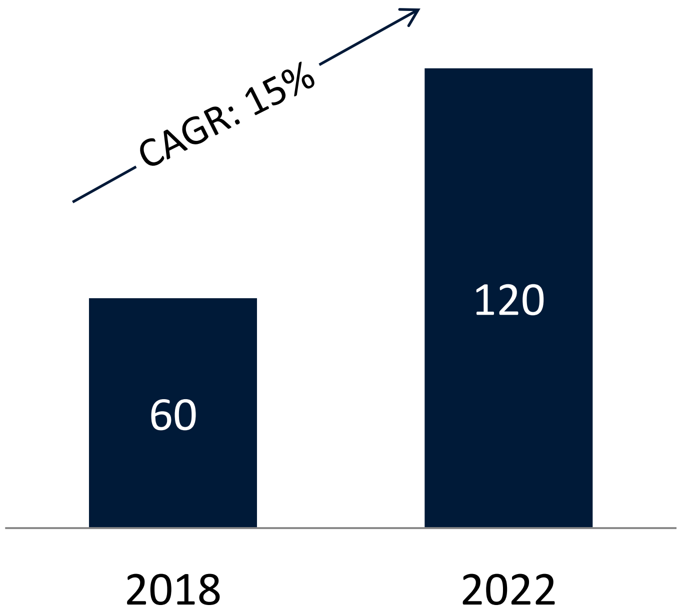
INTELLIGENT MINE

- **Mining** is an old industry. But chances are that it will it **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

EUR million



MARKET DEFINITION MINING

Sensor-based sorting equipment

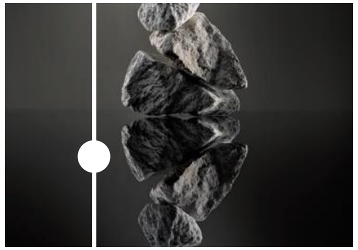
- is still a technology to be accepted
- Growth is conditional on new applications and technologies being developed

AFFECTING FACTORS

- Political climate
- Access to capital
- Cost drivers
- Commodity price fluctuations

MINING: APPLICATIONS AND SENSOR TECHNOLOGY

INDUSTRIAL MINERALS



Calcite, quartz, feldspar, magnesite, talc, dolomite, limestone, rock salt, phosphates, potash

COLOR, XRT, NIR

DIAMONDS

Diamonds, emeralds, rubies,
sapphires, tanzanite

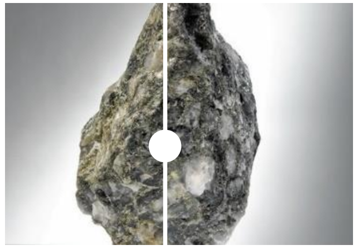
COLOR, XRT, NIR

FERROUS METALS

Iron, manganese, chromite

XRT, EM, NIR

NON-FERROUS METALS



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

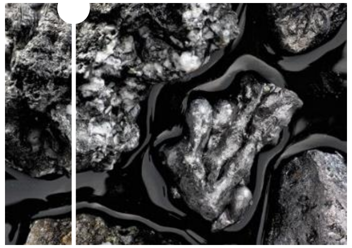
XRT, COLOR, EM, NIR

FUEL

Coal, oil shale

XRT

SLAG



Stainless steel slag, carbon
steel slag, ferro silica slag, ferro chrome slag,
non- ferrous slag

XRT, EM

THE CONCEPT OF SENSOR-BASED SORTING IN MINING

Mining process:
Industrial minerals

Run of Mine (ROM)

Primary Crushing

Secondary Crushing

Sensor Based Sorting

Waste

Product

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

Run of Mine (ROM)

Primary Crushing

Sensor Based Sorting

Waste

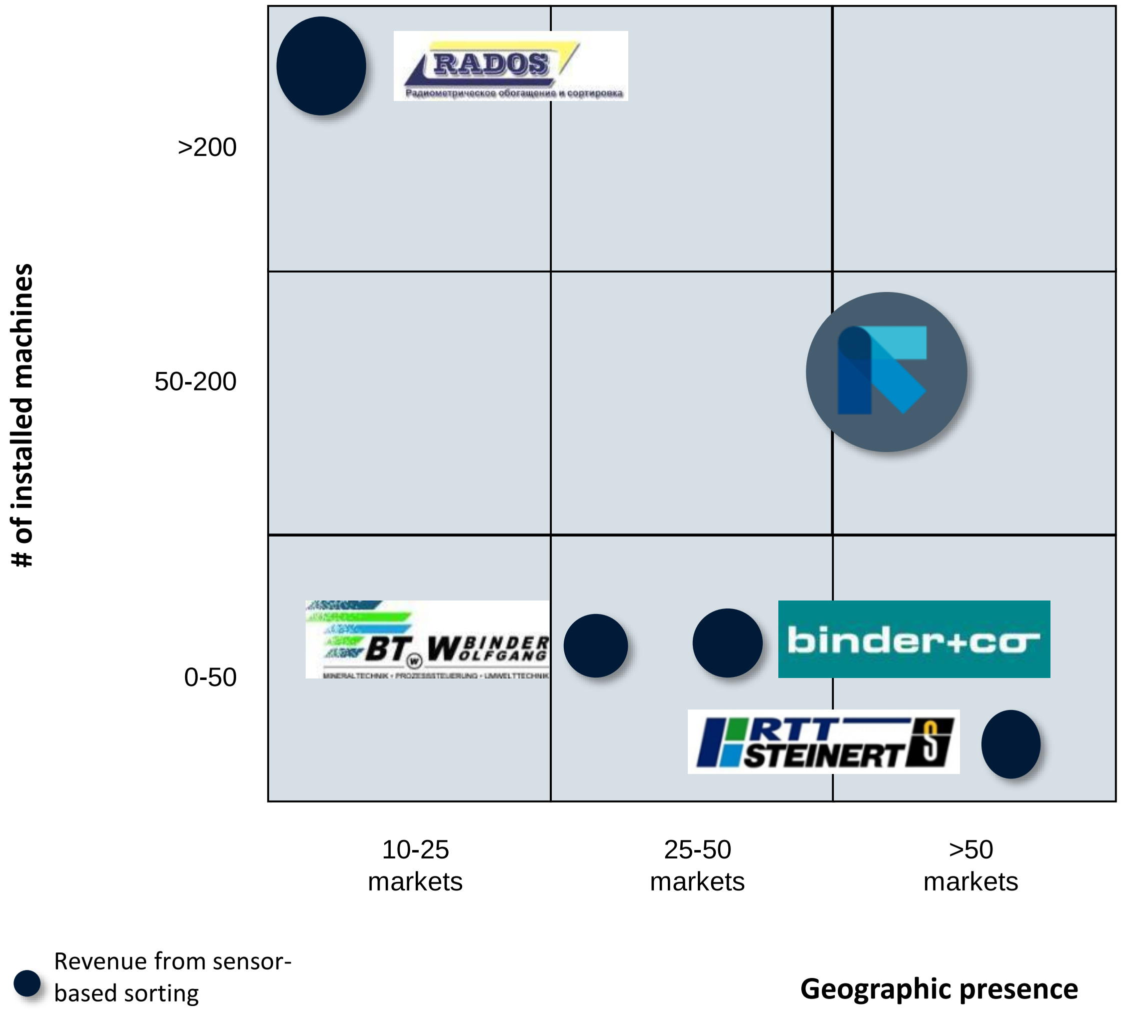
Beneficiation Plant:
Milling
Screening
DMS
Flotation

Tailings (fines)

Product

Potential new segment

MINING: COMPETITIVE LANDSCAPE



TOMRA competitive positioning

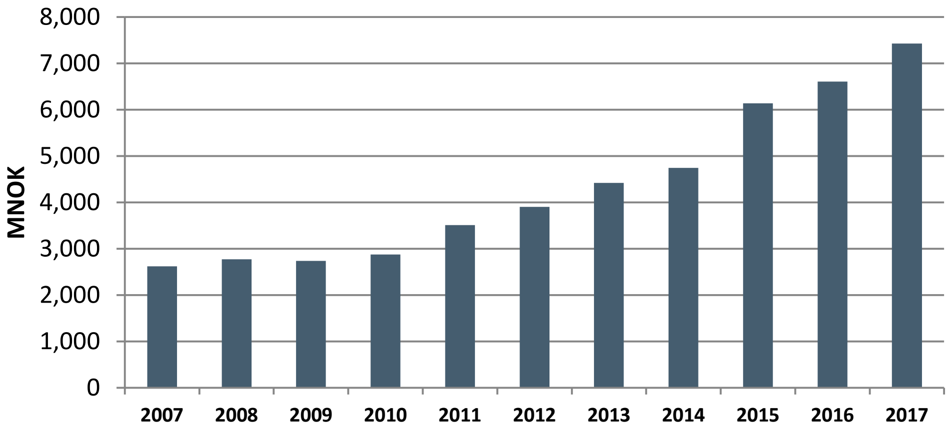
- Wide geographical coverage
- Broadest technology platform
- Leading brand
- **Market share: 40-50%**

Source: TOMRA estimates and analysis

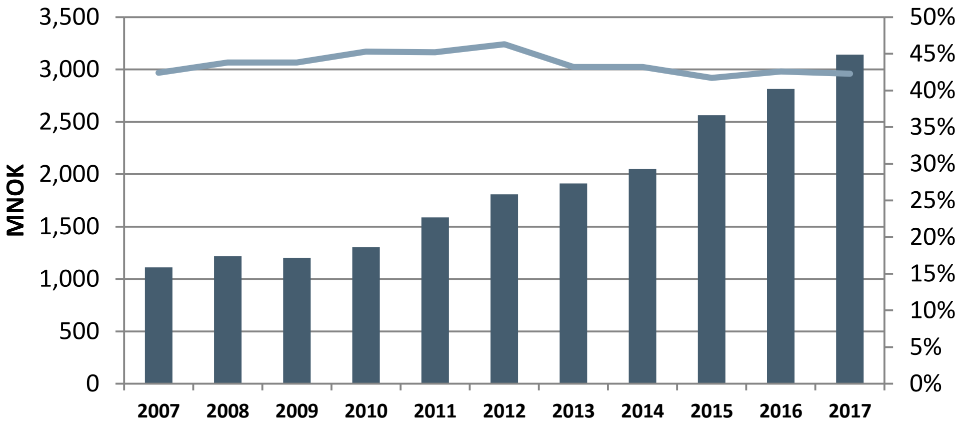
HISTORICAL GROUP FINANCIALS AND TARGETS

GROUP FINANCIALS DEVELOPMENT – SOLID TRACK RECORD

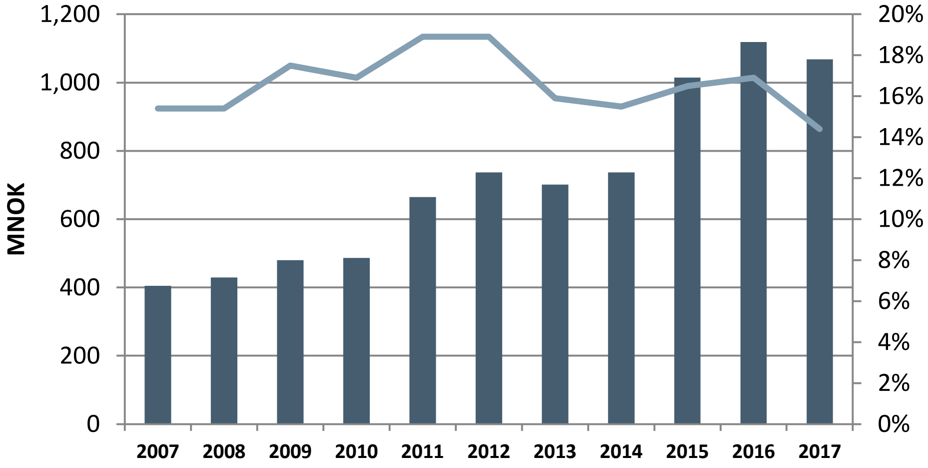
Revenues



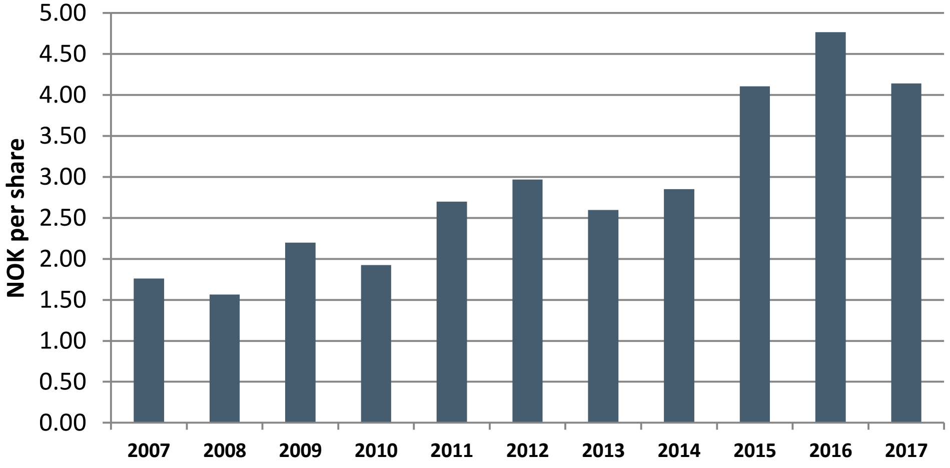
Gross Contribution and margin



EBITA and margin



Earnings per share



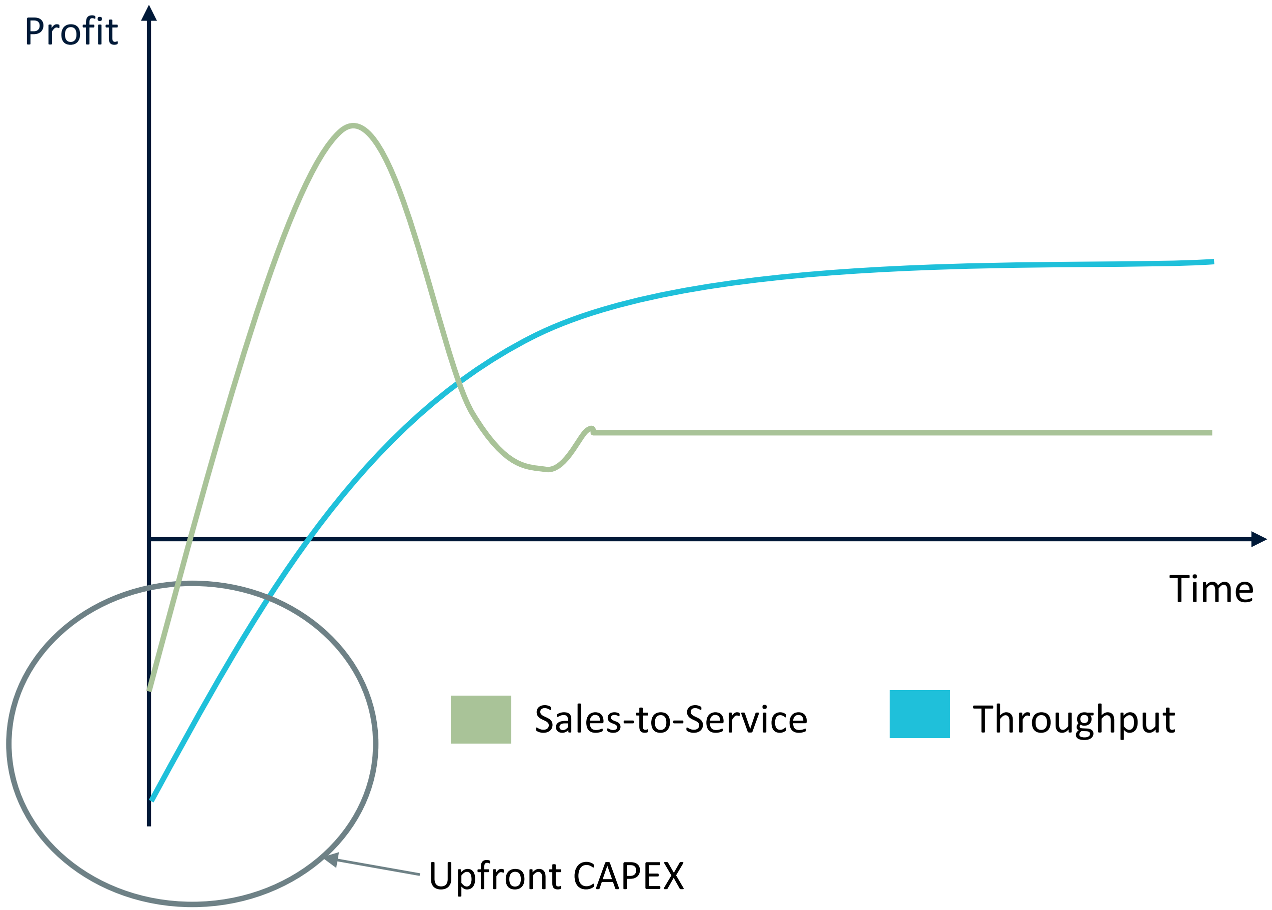
EPS from continued operations, excluding other items

GROUP FINANCIAL TARGETS 2018-2023 – OUR AMBITIONS AFFIRMED

Revenue growth	EBITA-margin	Dividend payout	Capital Structure	ROCE new projects
>10%	**>18%**	**40-60%** of EPS	**Maintain investment grade**	**>20%**

A COMMENT ON THE CAPITAL EXPENDITURE NEEDS

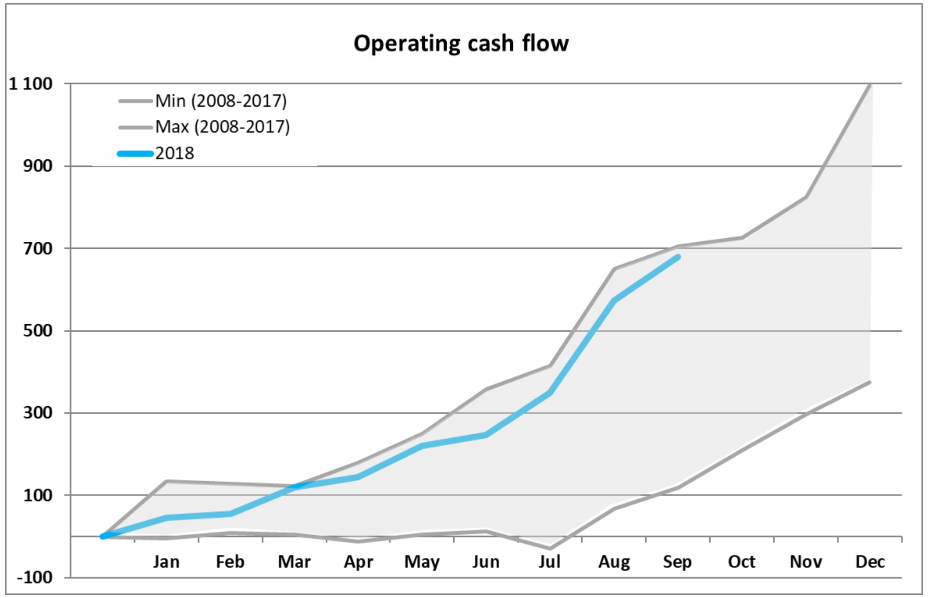
Illustrative revenue profiles for the two main type of container deposit schemes



Uncertainties around timing and design of each new container deposit scheme can have significant impact on the revenue profile for Collection Solutions.

FINANCIAL HIGHLIGHTS
BALANCE SHEET, CASH FLOW AND CAPITAL STRUCTURE

Amounts in NOK million	30 Sept 2018	30 Sept 2017	31 Dec 2017
ASSETS	**9,117**	**8,214**	**8,437**
• Intangible non-current assets	3,653	3,314	3,412
• Tangible non-current assets	1,129	848	998
• Financial non-current assets	327	307	349
• Inventory	1,400	1,204	1,197
• Receivables	2,322	2,067	1,887
• Cash and cash equivalents	286	474	594
LIABILITIES AND EQUITY	**9,117**	**8,214**	**8,437**
• Equity	4,577	4,326	4,594
• Minority interest	156	174	143
• Interest bearing liabilities	1,487	1,214	1,280
• Non-interest bearing liabilities	2,897	2,500	2,420



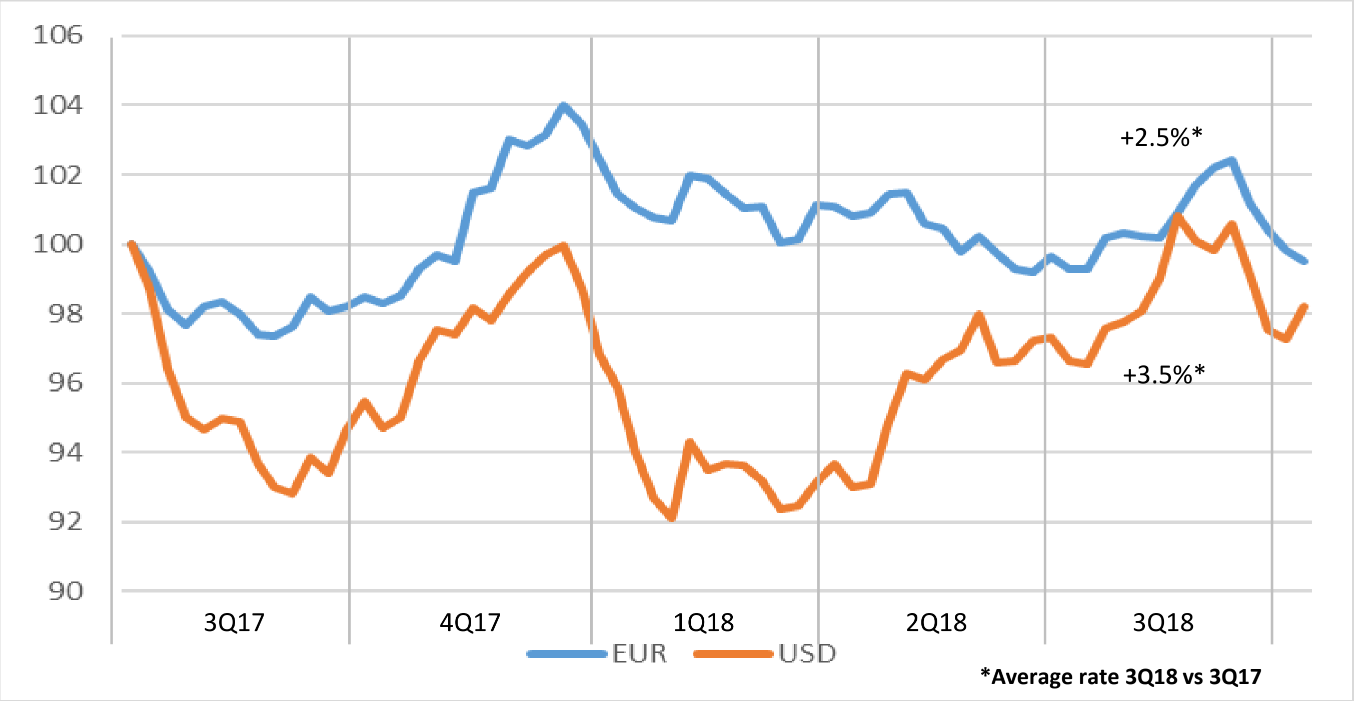
Ordinary cashflow from operations

- 433 MNOK (375 MNOK in third quarter 2017)

Solidity

- 50% equity
- NIBD/EBITDA = 0.8x (Rolling 12 months)

CURRENCY RISK AND HEDGING POLICY



Overall limited currency effect, still:

TCS:
Positive impact from both stronger EUR and USD vs NOK.

TSS:
Positive impact by weaker NOK and stronger USD vs EUR.

10% change in NOK towards other currencies will impact:

	Revenues	Expenses	EBITA
EUR*	4.5%	4.0%	5.0%
USD	4.5%	3.0%	10.0%
NZD	0.0%	0.5%	-2.0%
OTHER	1.0%	2.0%	-1.0%
ALL	**10.0%**	**9.5%**	**12.0%**

*** EUR includes DKK**

Revenues and expenses per currency:

NOTE: Rounded figures

	EUR*	USD	NOK	NZD	OTHER	TOTAL
Revenues	45 %	45 %	0 %	0 %	10 %	100 %
Expenses	40 %	30 %	5 %	5 %	20 %	100 %
EBITA	**50 %**	**100 %**	**- 20 %**	**- 20 %**	**-10 %**	**100 %**

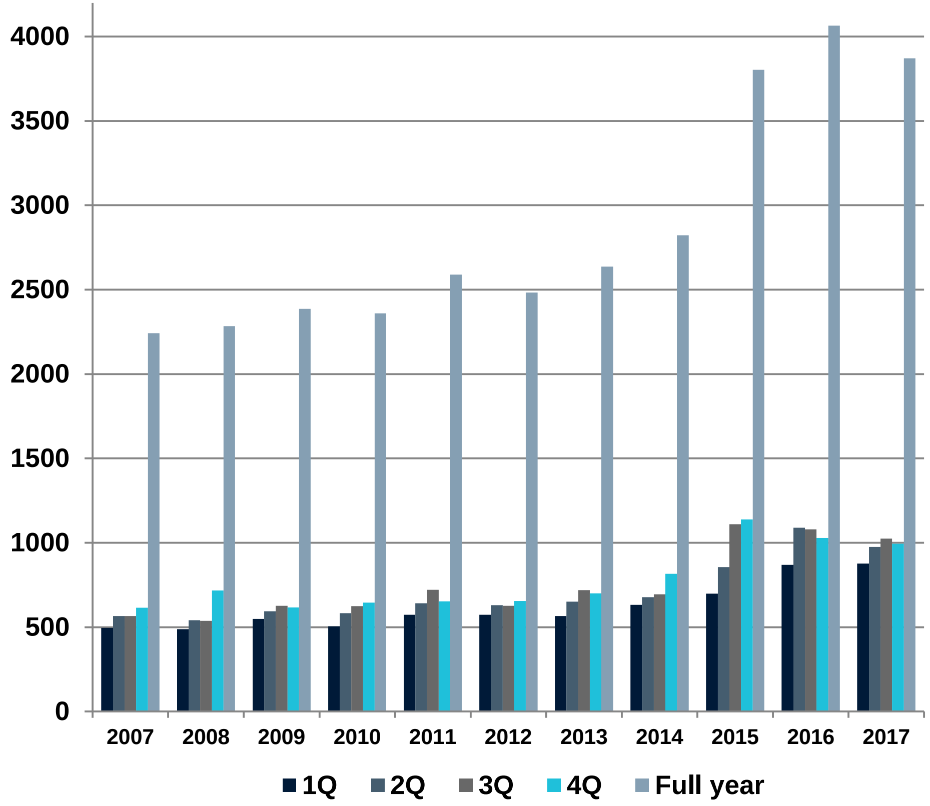
*** EUR includes DKK**

HEDGING POLICY

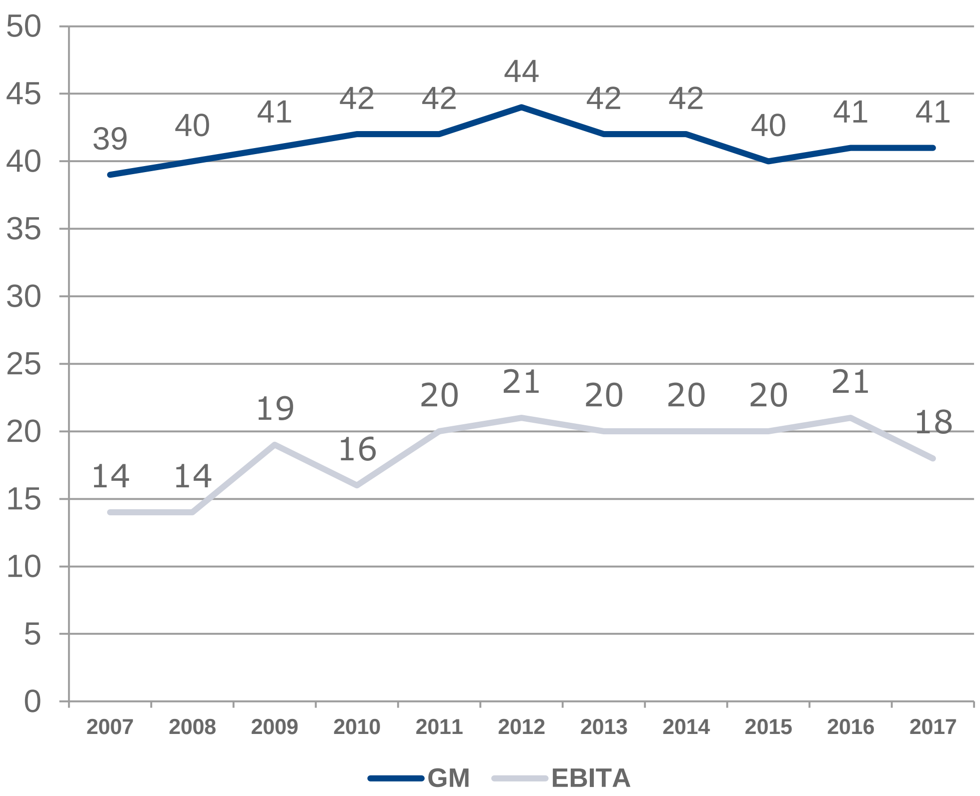
- TOMRA hedges B/S items that will have P/L impact on currency fluctuations
- TOMRA can hedge up to one year of future predicted cash flows. Gains and losses on these hedges are recorded in the finance line, not influencing EBITA

COLLECTION SOLUTIONS – SEGMENT FINANCIALS

Revenue development
NOK million

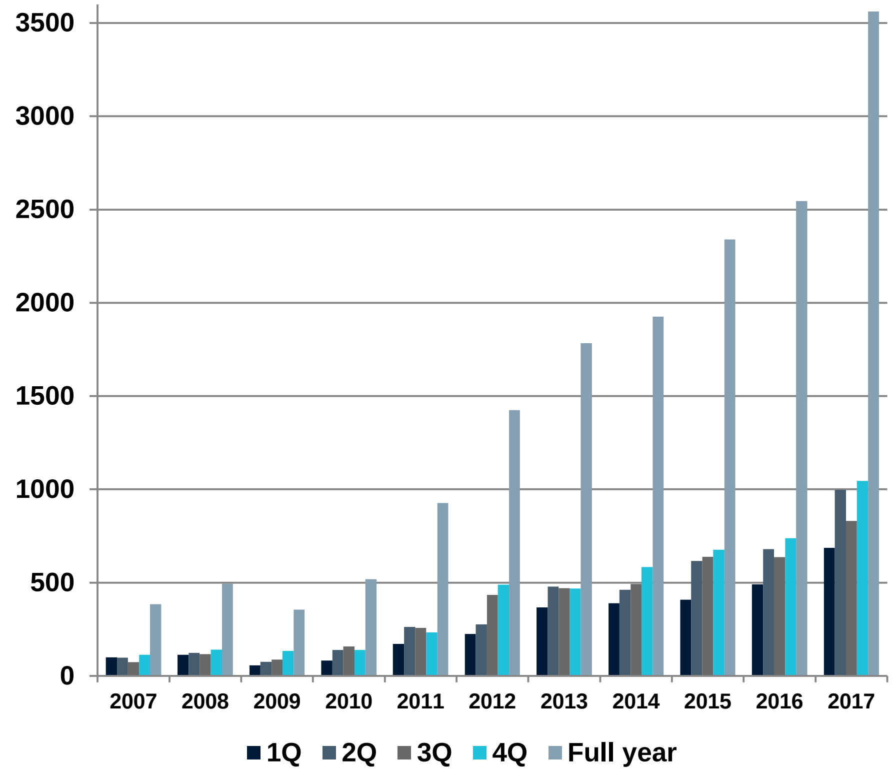


Gross and EBITA margin development
Percent

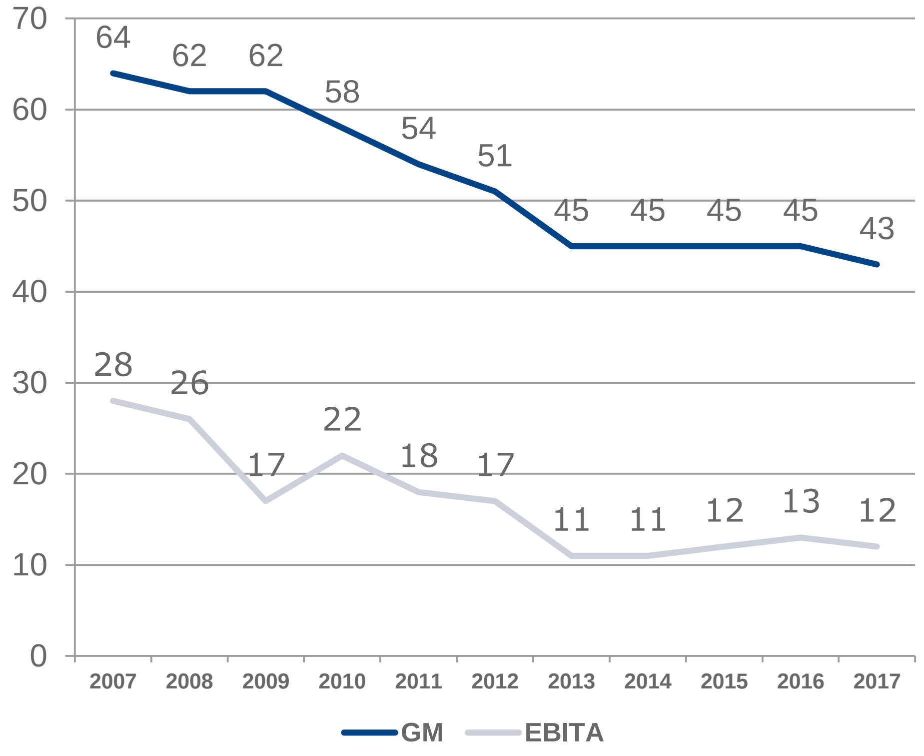


SORTING SOLUTIONS – SEGMENT FINANCIALS

Revenue development
NOK million



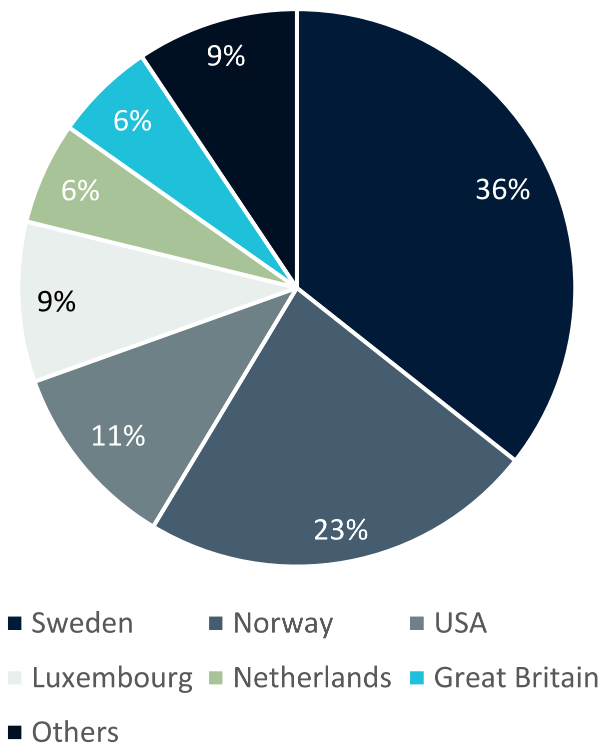
Gross and EBITA margin development
Percent



SHAREHOLDER STRUCTURE

	Top 10 shareholders as of 03 October 2018			
1	Investment AB Latour	39 000 000	26,3 %	
2	Folketrygdfondet	11 735 490	7,9 %	
3	The Bank of New York, Stichting Depositary	7 845 000	5,3 %	(NOM)
4	Clearstream Banking	3 964 496	2.7 %	(NOM)
5	Goldman Sachs & Co	3 563 326	2.4 %	(NOM)
6	Lannebo Småbolag Skandinaviska Enskil	3 000 000	2.0 %	
7	Nordea Nordic Small	2 349 276	1.6 %	
8	Danske Invest Norske C/O Danske Capital	2 155 942	1.5 %	
9	ODIN Norge	1 855 736	1.3 %	
10	State Street Bank	1 807 641	1.2 %	(NOM)
	Sum Top 10	**77 276 907**	**52.2%**	
	Other shareholders	**70 743 171**	**47.8%**	
	TOTAL (6,981 shareholders)	**148 020 078**	**100.0%**	

Shareholders by country




WASTE