INVESTOR PRESENTATION

TOMRA

THE DAWN OF THE RESOURCE REVOLUTION

THE CHALLENGE:

THE OPPORTUNITY:

3 billion more middle-class consumers expected to be in the global economy by 2030

$2.9 trillion of savings in 2030 from capturing the resource productivity potential

Up to **$1.1 trillion** spent annually on resource subsidies

At least $1 trillion more investment in the resource system needed each year to meet future resource demands

Making A world worth living for our children!

SOURCE: McKinsey
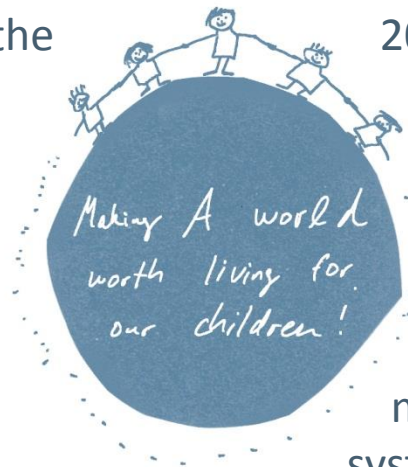
TOMRA

THE WORLD POPULATION AND STANDARD
OF LIVING IS INCREASING DRAMATICALLY

WORLD RESOURCES ARE UNDER
UNPRECEDENTED PRESSURE

RESOURCE PRODUCTIVITY MUST INCREASE
TO ENSURE SUSTAINABLE DEVELOPMENT

**TOMRA creates
sensor-based
solutions for
optimal resource
productivity**

Obtaining
resources

Using
resources

Reusing
resources

TOMRA
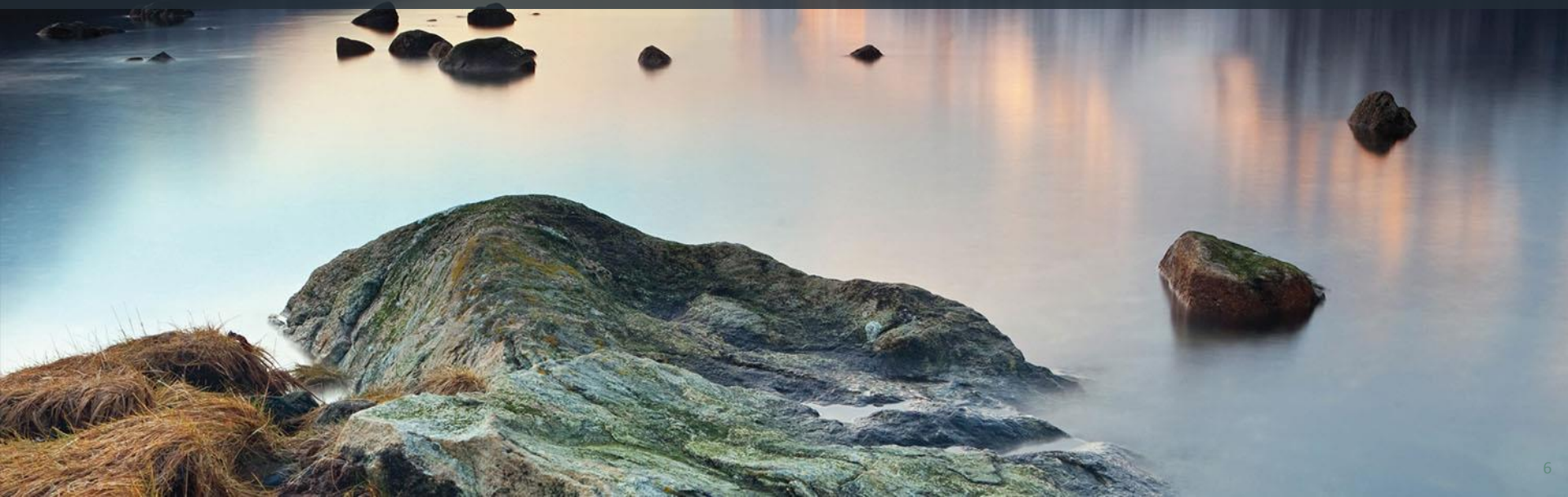
LEADING THE RESOURCE REVOLUTION

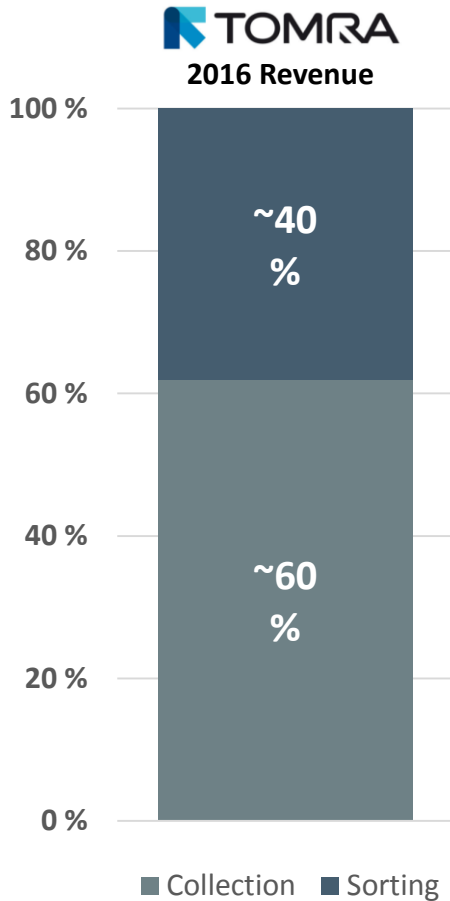FROM PURPOSE INTO PROFITS AND PROFITS INTO PROGRESS, TOMRA IS **TRANSFORMING** WHAT IT MEANS TO BE RESOURCEFUL.

- Our solutions, in use around the globe, helped keep ~**25 millions of tons of CO_2** from being released into the atmosphere in 2016

- **~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
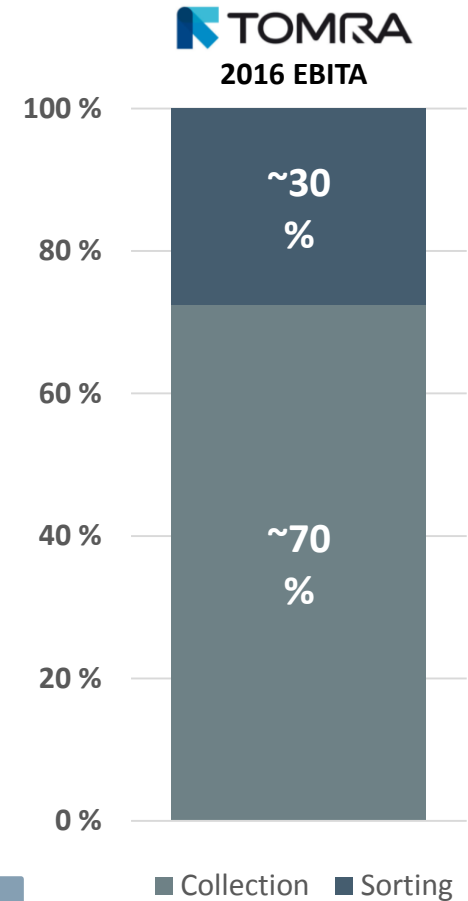
TOMRA IN SHORT

CREATING VALUE THROUGH TWO STRONG BUSINESS AREAS*

TOMRA
2016 Revenue

~40 %	Sorting
~60 %	Collection

TOMRA SORTING SOLUTIONS

- High growth
- High margins
- Medium cyclicality

TOMRA COLLECTION SOLUTIONS

- Stable
- High margins
- Low cyclicality

TOMRA
2016 EBITA

~30 %	Sorting
~70 %	Collection

■ Collection   ■ Sorting

High technology - sustainable business

■ Collection   ■ Sorting

* Not including Compac. Consolidation starts 1 February 2017

7

TOMRA

THE TOMRA TRANSFORMATION JOURNEY

2004
TOMRA acquires TITECH, the world's leading provider of optical recognition and sorting technology for the waste industry and TOMRA's transformation journey starts.

2006
TOMRA acquires Commodas—a leading supplier within the field of sensor-based products for mining and metal recycling.

2008
TOMRA acquires Ultrasort—specialists in sensor-based mining technology.

2011
Sale of Californian material handling business. With this divestment the US operation became less exposed to movements in commodity prices.

2011
TOMRA acquires Odenberg, rounding out the offering to include food optimization.

2012
TOMRA acquires BEST, leading food sorting machine producer. With the acqusition of BEST TOMRA has by far the widest reach within the food sorting universe.

2012
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.

	2000	**2004**	**2008**	**2012**	**2016**	
FROM:	100%	5 % / 95 %	18 % / 82 %	36 % / 64 %	39 % / 61 %	**TO:**

TOMRA
A house of brands

2000 — 100% — ■ Collection

2004 — ■ Collection ■ Sorting

2008 — ■ Collection ■ Sorting

2012 — ■ Collection ■ Sorting

2016 — ■ Collection ■ Sorting

A branded house

TOMRA WORLDWIDE

Head Office

TOMRA Collection Solutions offices (19)

TOMRA Sorting Solutions offices (24)

Compac offices (9)

Production entities (6)

Test centers (13) (TSS)

Agents/distributors (~60)

Food test center
in Leuven, Belgium

Mining test center
in Hamburg, Germany

Recycling test center
in Koblenz, Germany

TOMRA

TOMRA'S TWO BUSINESS AREAS

TOMRA SORTING SOLUTIONS

TOMRA COLLECTION SOLUTIONS

FOOD*

Share of '16 sales	~24%
Employees	580
Customers	Food growers, packers and processors
Market share	**~25%**

REVERSE VENDING

Share of '16 sales	~47%
Employees	1,310
Customers	Grocery retailers
Market share	**~75%**

RECYCLING

Share of '16 sales	~11%
Employees	175
Customers	Material recovery facilities, scrap dealers, metal shredder operators
Market share	**~55-65%**

MATERIAL RECOVERY

Share of '16 sales	~15%
Employees	500
Customers	Grocery retailers and beverage manufacturers
Market share	**~60% in USA (markets served)**

MINING

Share of '16 sales	~3%
Employees	60
Customers	Mining companies
Market share	**~40-60%**

TOMRA SORTING GROUP FUNCTIONS & SHARED STAFF

Employees	140

TOMRA INSTALLED BASE

TOMRA COLLECTION SOLUTIONS	TOMRA SORTING SOLUTIONS

REVERSE VENDING	
Nordic	~15,300
Germany	~29,500
Other Europe	~14,200
North America	~15,900
Rest of the world	~3,500
TOTAL	**~78,400**

RECYCLING		MINING		FOOD*	
EMEA	~3,500	Europe	~10	EMEA	~2,900
Americas	~700	US / Canada	~30	Americas	~2,700
Asia	~600	Australia	~5	Asia	~600
Other	~20	South Africa	~25		
		Other	~30		
TOTAL	**~4,820**	**TOTAL**	**~100**	**TOTAL**	**~6,200**

Not including machines sold on OEM agreements.
2016 recount of TSS portfolio

* Not including Compac, with ~5.500 lanes, installed at ~1.000 customers

USING THE POWER OF BUSINESS TO DO GOOD
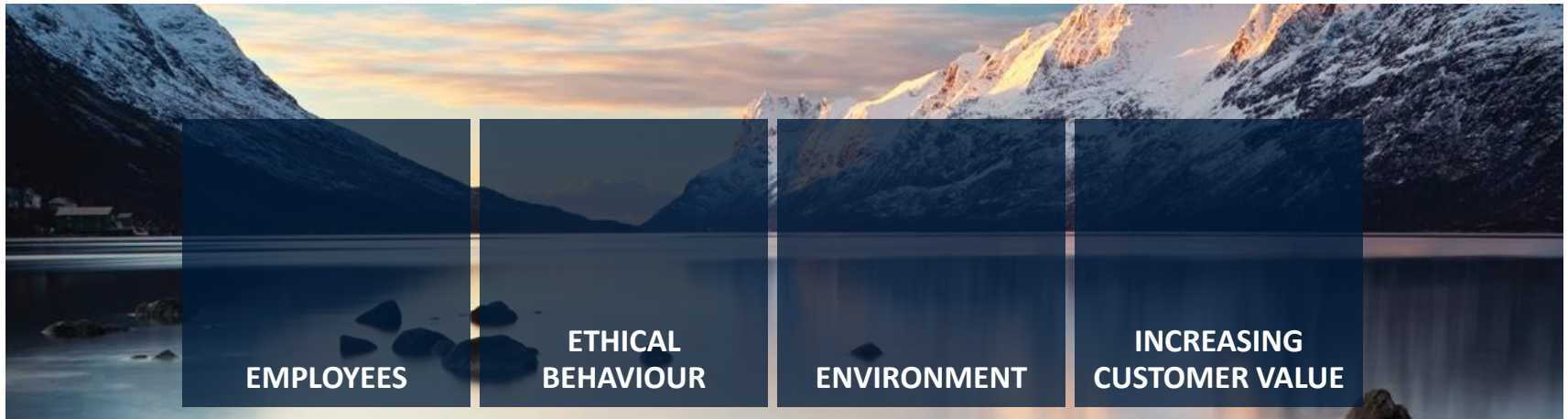
EMPLOYEES	ETHICAL BEHAVIOUR	ENVIRONMENT	INCREASING CUSTOMER VALUE
77% of our employees say TOMRA is a "Great Place to Work" (2015)	Member of UN Global Compact since end 2009 Implementing ethical policies worldwide	We contribute to avoided emissions of about ~25 mill tons CO_2 annually (2016)	Productivity Revenues Quality

TOMRA IN DEPTH
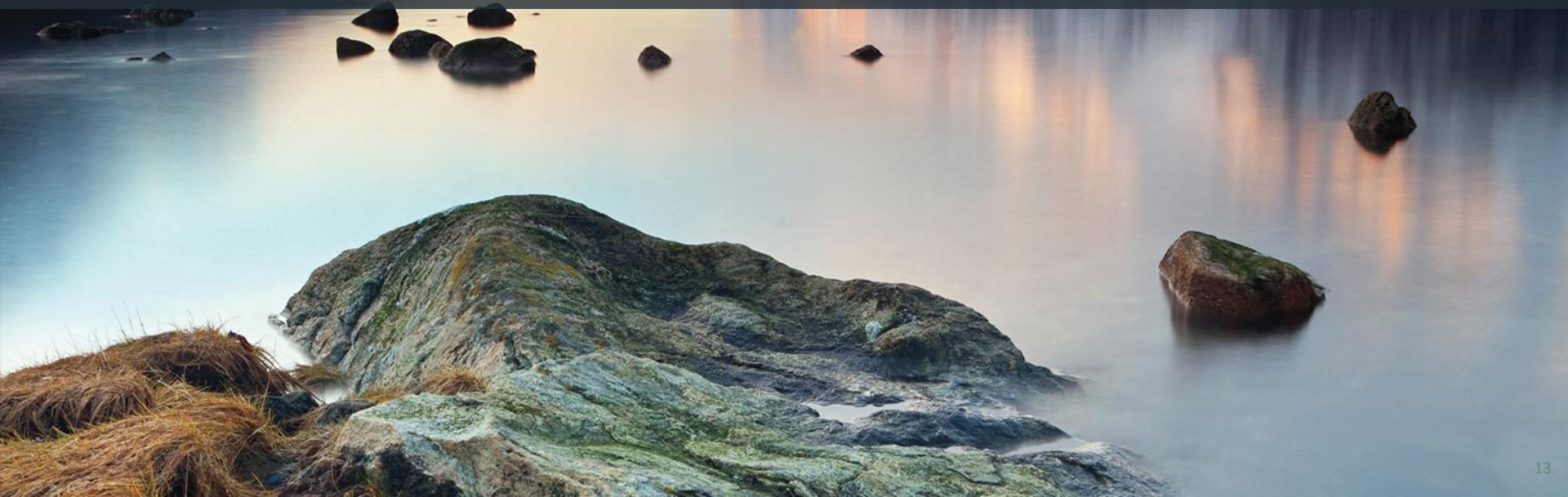
TOMRA Collection Solutions

REVERSE VENDING ADVANTAGES

1 CONVENIENT AND ENGAGING FOR USERS

REVERSE VENDING VALUE PROPOSITION

There are three main components to our value proposition

2 BETTER FOR BUSINESSES

3 BETTER FOR THE ENVIRONMENT

TOMRA
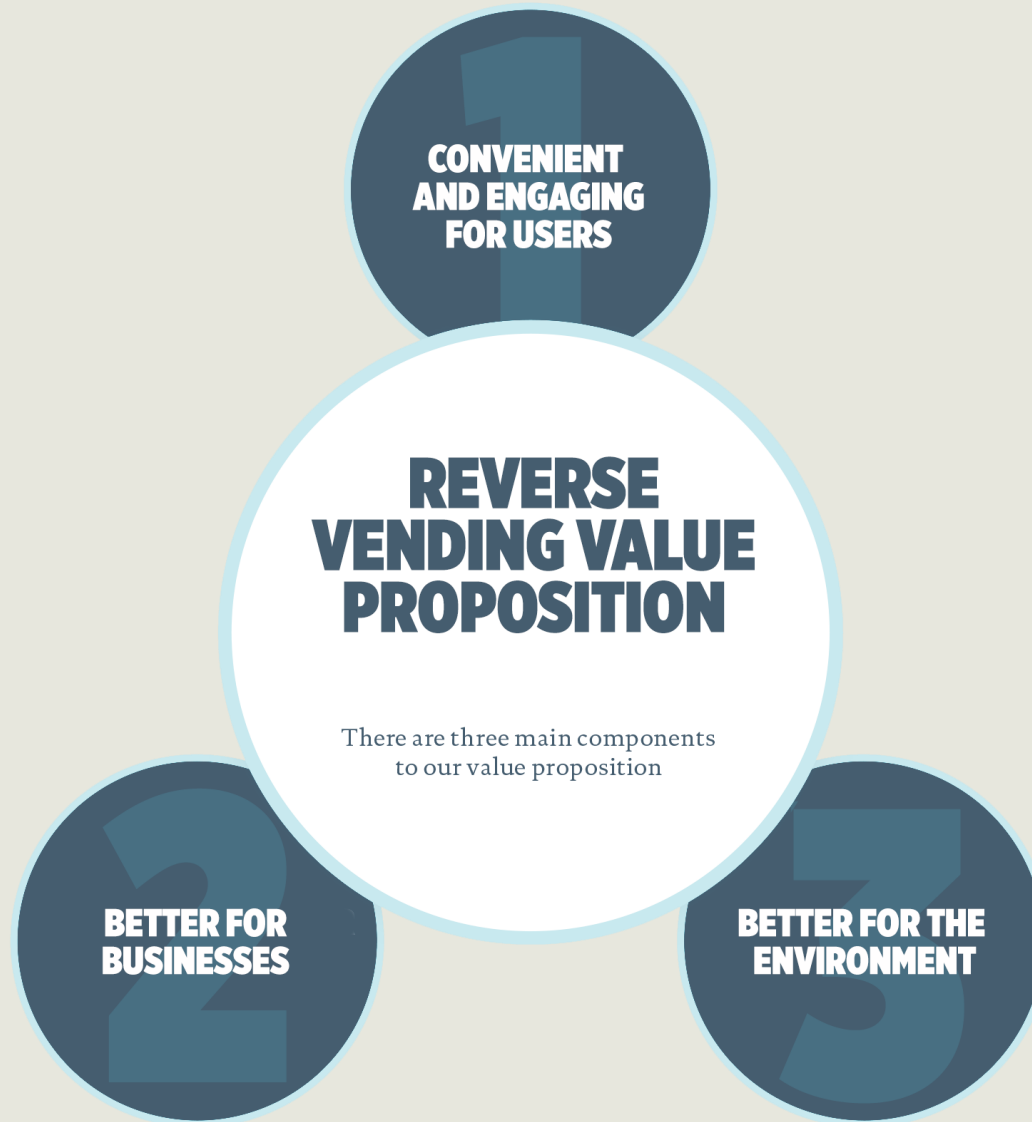
RECYCLING OF BEVERAGE PACKAGING IN A DEPOSIT SYSTEM

① Consumer purchases beverage

Retailer

Pays price + deposit amount

Retailer purchases beverage from filler/importer

Filler/bottler/importer

② Consumer drinks his beverage

③ Consumer returns empty beverage container to a retail location and receives deposit

Retailer

Return data

Reimbursment of deposit amount paid out by store/depot, and payment of handling fee per container received

Central organisation/clearing house

ELEMENTS OF A MODERN REVERSE VENDING SYSTEM
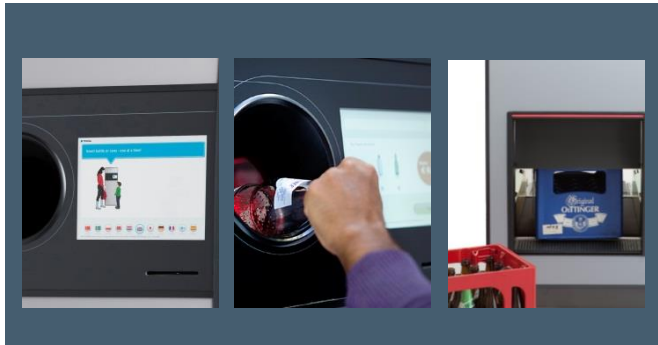
User communication
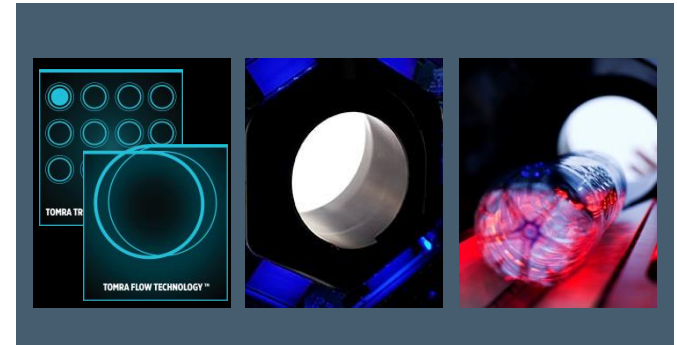
Recognition system

Sorting & processing

Data administration

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THE USED BEVERAGE CONTAINER RECYCLING VALUE CHAIN

Generic used beverage container (UBC) recycling value chain

COLLECTION

The process of obtaining recyclable materials from the public

TRANSPORT

The process of picking up and transporting recyclable materials to sorting and processing facilities

SORTING & PROCESSING

The process of ensuring that materials are separated according to specific fractions and compacted for efficient transport

RECYCLING

The process of transforming materials into a form that can be used to produce new product

RVM-based UBC recycling value chain

RVM TECHNOLOGY > **SERVICE/ SUPPORT** > **DATA ADMIN/ CLEARING** > **MATERIAL PICK-UP** > **MATERIAL PROCESSING** > **MATERIAL BROKERAGE** > **MATERIAL RECYCLING**

T-9: THE FIRST OF A NEW GENERATION OF MACHINES

- In fourth quarter 2013, TOMRA presented the first machine of the **new generation** of machines to come

- T-9 features the first **360 degree recognition** system applied in an RVM and a completely new industrial design

- The machine is **faster**, **cleaner** and **takes all** types of beverage containers

- **The launch has been successful**

  — Several machines already installed in core markets

  — Key product for replacement sale in e.g. Germany

- **2014** installations: ~1,200 machines
- **2015** installations: ~4,000 machines
- **2016** installations: ~4,600 machines

> **TOMRA is setting the standard for reverse vending for the next decade**

TOMRA FLOW TECHNOLOGY™

The world's first 360-degree instant-recognition system in retail reverse vending raises the bar.

FASTER   **CLEANER**   **TAKES ALL**

T-9 THE FIRST OF A NEW GENERATION

TOMRA

A COMPLETE TRANSFORMATION OF THE PRODUCT PORTFOLIO IN PROGRESS

2012 Portfolio

| UNO | UNO PROMO | T-63 HCp SINGLE | T-63 TriSort | T-63 HCp DUAL | T-820 BOTTLE | T-820 COMBI | T-820 BOTTLE TOUCH | T-820 COMBI TOUCH |

2017 Portfolio

CURRENT DEPOSIT MARKETS*

Northwest Territories (2005)
Yukon (1992)
Quebec (1984)
British Columbia (1970)
Newfoundland (1997)
Ontario (2007)
Prince Edwardian Island (2008)
Nova Scotia (1996)
Alberta (1972)
Saskatchewan (1988)
Manitoba (2008)
New Brunswick (1992)

Norway (1999)
Sweden (1984)
Iceland (1989)
Finland (1996)
Denmark (2002)
Estonia (2005)
Netherlands (2005)
Lithuania (2016)
Germany (2006)
Croatia (2006/2015)

Oregon (1972)
Iowa (1979)
Michigan (1978)
New York (1983/2010)
Vermont (1973)
Maine (1978)
Massachusetts (1983)
Connecticut (1980/2010)
California (1987)
Hawaii (2005)

Northern Territory (2013)
South Australia (1977)
New South Wales (Dec 2017)

* In addition, TOMRA has some activity in markets with refillable deposit systems like: Austria, Belgium, Chile, Czech Republic, France, Hungary, Poland and South Korea

TOMRA

COMPETITIVE LANDSCAPE

# of installed RVS (y-axis)

- >75,000
- 10,000-70,000
- 5,000-10,000
- 500-5,000
- <500

WINCOR NIXDORF

envipco

Sielaff

troutwein sb technik
innovative retail & reverse vending systems

RVM SYSTEMS

KANSMACKER
MAX COMPACTION
INCOM
RVM TECH
DIGI

Number of RVS markets (x-axis): 1-10, 11-20, 22-30, 31-40, >40
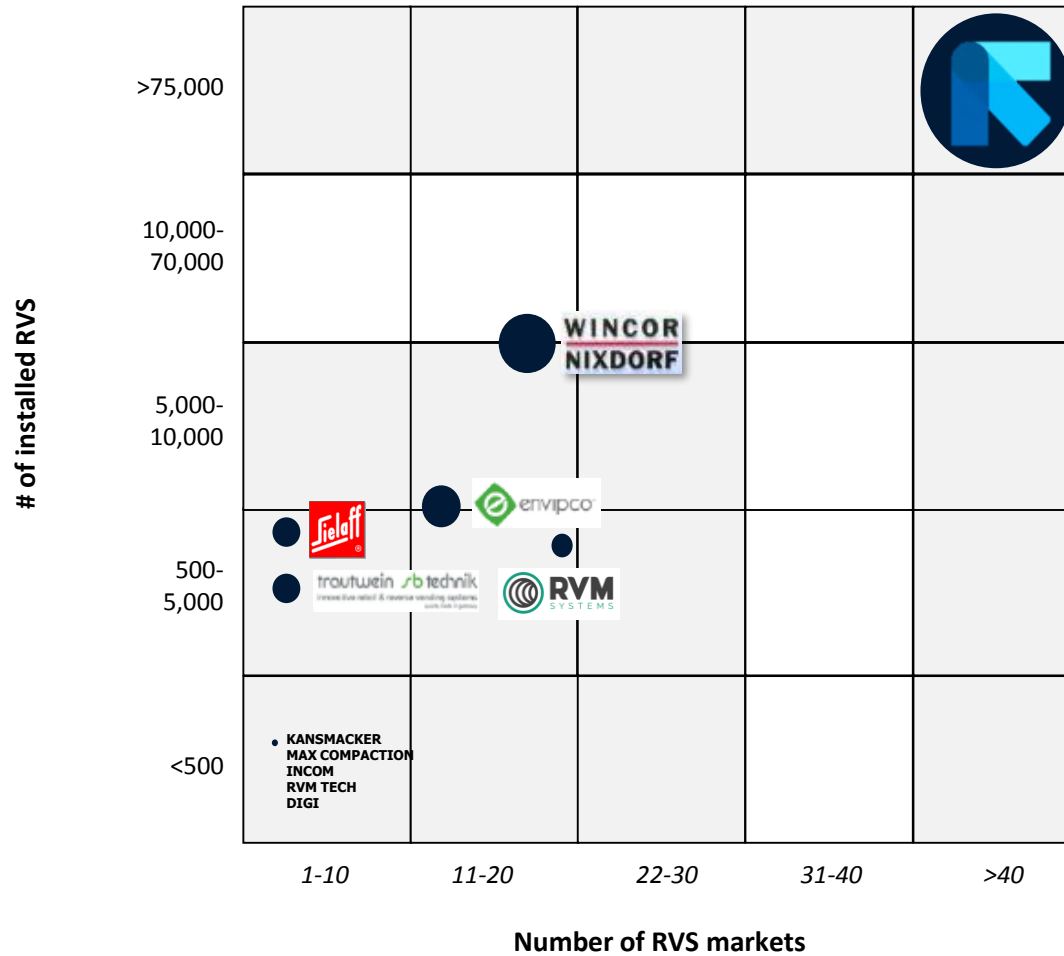
● Annual revenue from RVS sales

Source: TOMRA estimates and analysis

RVM: OUR STRATEGY 2013 -2018

1 **Defend and nurture core deposit market business**

- Increase differentiation towards competition
- Further reduce the cost of reverse vending systems

2 **Ensure continued relevance of deposit systems**

- Increase scope of existing deposit markets
- Assist in developing new deposit markets

3 **Embrace new business models**

- Capture new volume by entering new segments
- Create new revenue streams from Software/IT

4 **Expand scope of business**

- Target new material streams

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A NEW SOURCING SETUP IS THE MAIN DRIVER FOR ACHIEVED COGS SAVINGS

COGS distribution by region (sourcing)
Percent of total
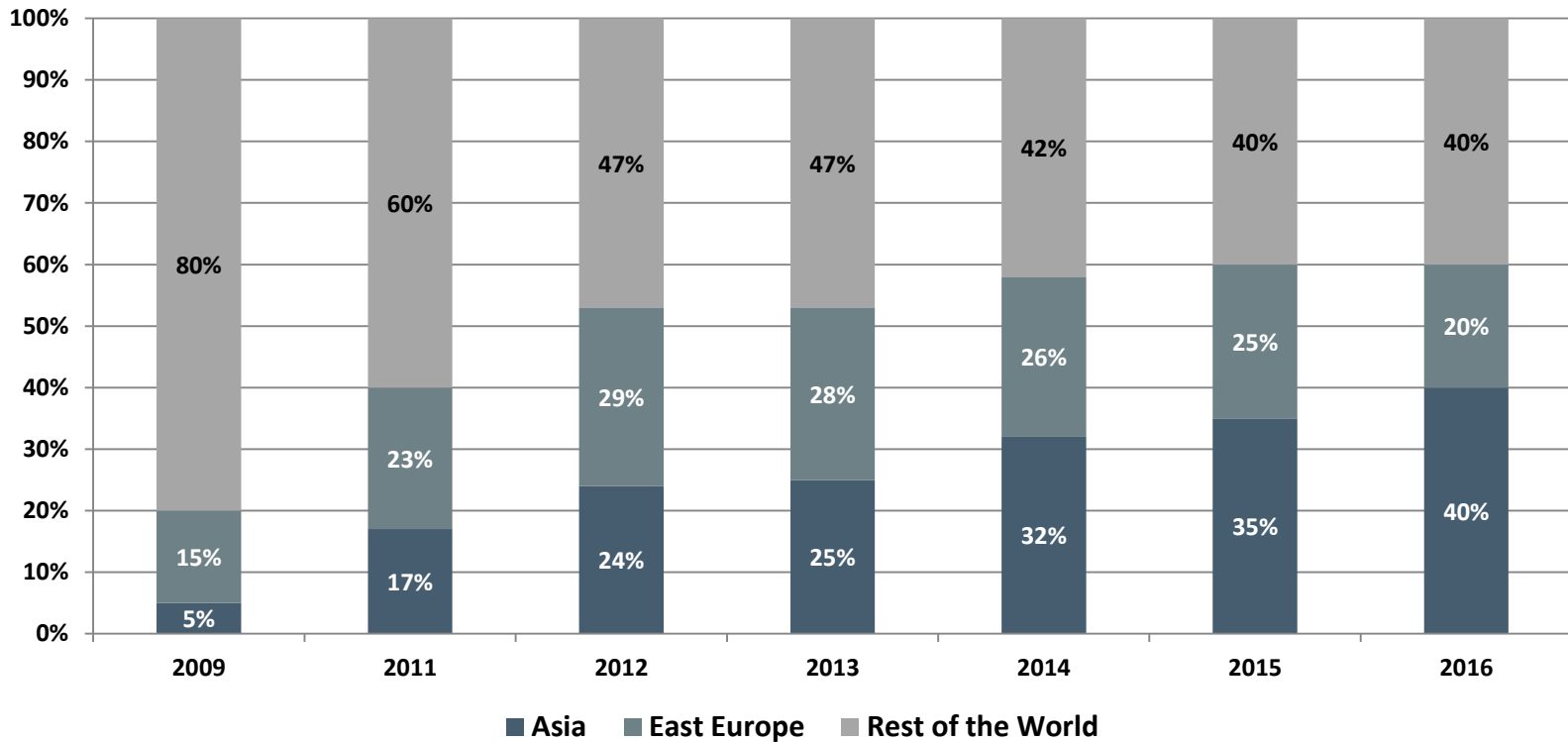
Source: TOMRA analysis

ENSURE CONTINUED RELEVANCE OF AUTOMATED DEPOSIT SYSTEMS

Handling method for deposit containers
Percent of total

Share of containers sold with deposit
Percent of total

40 %

60 %

15 %

85 %
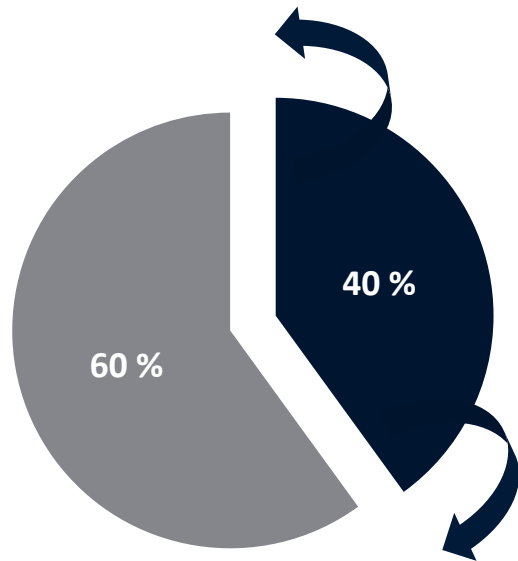
■ Handled with RVS
■ Handled manually
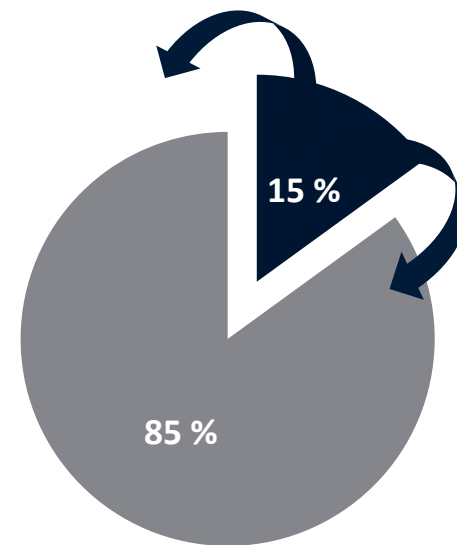
■ Containers sold with deposit
■ Containers sold without deposit

ILLUSTRATIVE

Source: TOMRA analysis

TOMRA

ENTER NEW SEGMENTS

Price (EUR) (vertical axis)

- >200,000
- 50,000-200,000
- 10,000-50,000
- 3,000-5,000

Depot segment opportunity

TOMRA's current sweet spot

Small stores

Discounters/Supermarkets

Hypermarkets, C&C

RCs, small depots etc.

Large depots, counting centers

| 0.1 -0.3 M UBC/year | 0.3 -1 M UBC/year | 1-3 M UBC/year | 3-5 M UBC/year | 5 -15 M UBC/year | 15 -50 M UBC/year |

Container volume
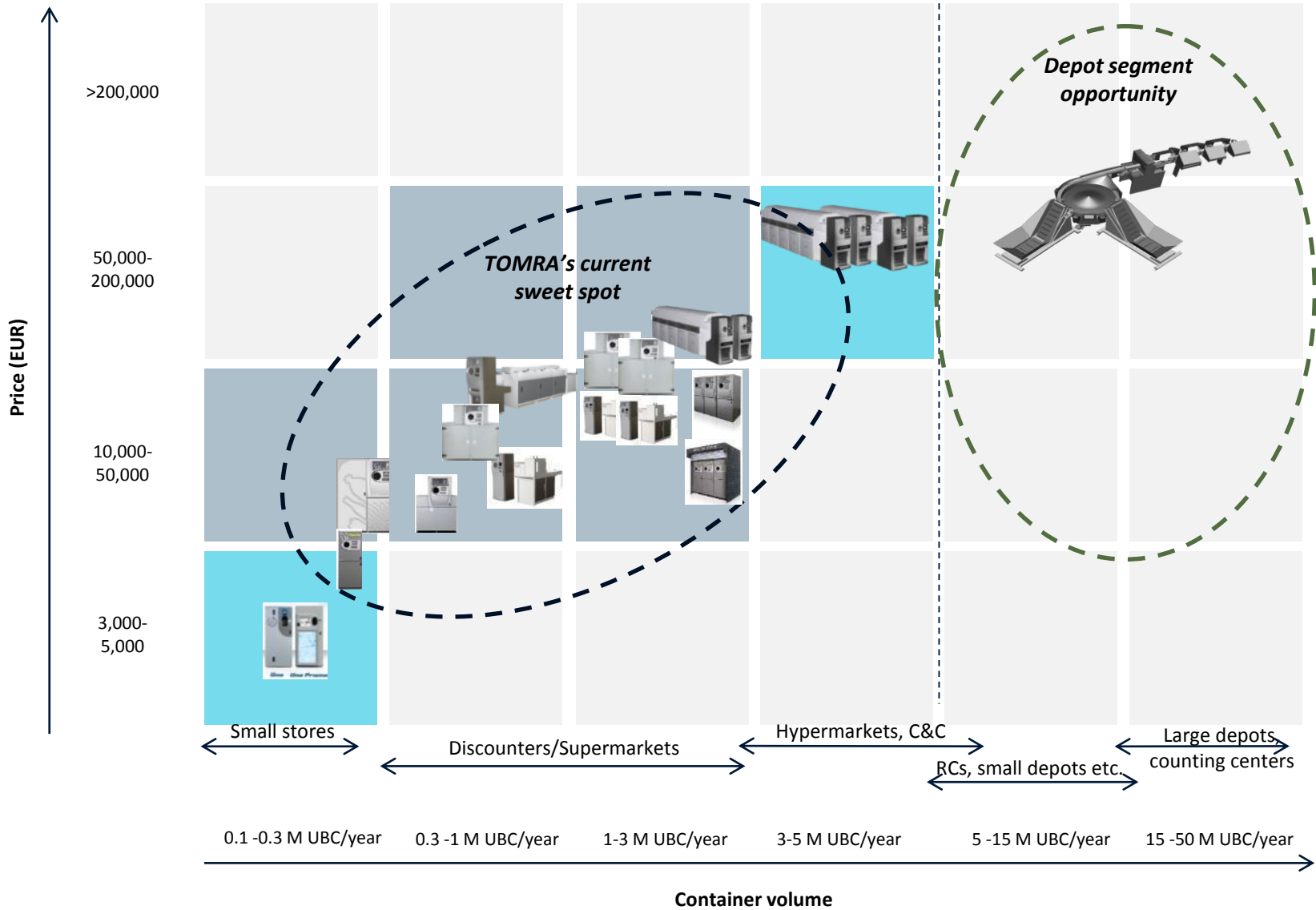
CREATE NEW REVENUE STREAMS FROM SW/IT

TOMRA*Plus*
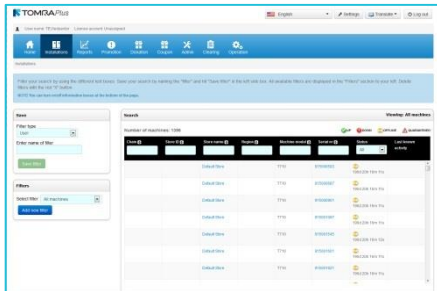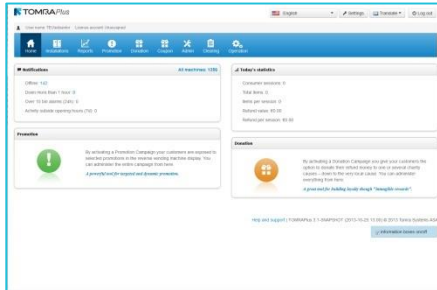
TOMRA ReAct/PANTO
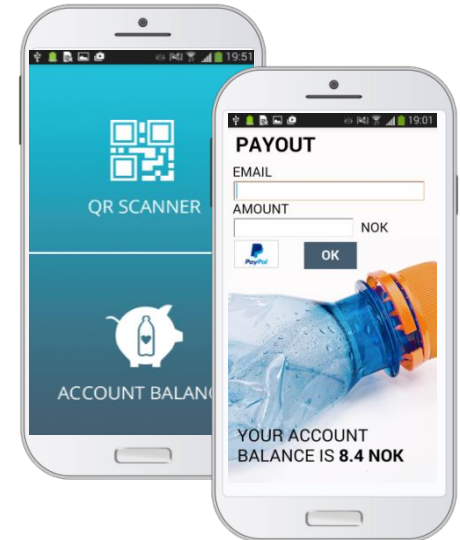
IN-STORE MARKETING

Transform reverse vending machines into customer dialogue tools.

RECEIPT CONTROL

Validate and devaluate deposit refund receipts in real-time through POS.

RVM INSIGHT & ANALYSIS

Operational metrics, performance monitoring, fleet management, business intelligence and analysis.

CONSUMER ENGAGEMENT

Innovative solutions for customer loyalty and engagement with customer identification.

Integrating hardware and software into attractive and engaging combos

GERMANY REPLACEMENT UPDATE
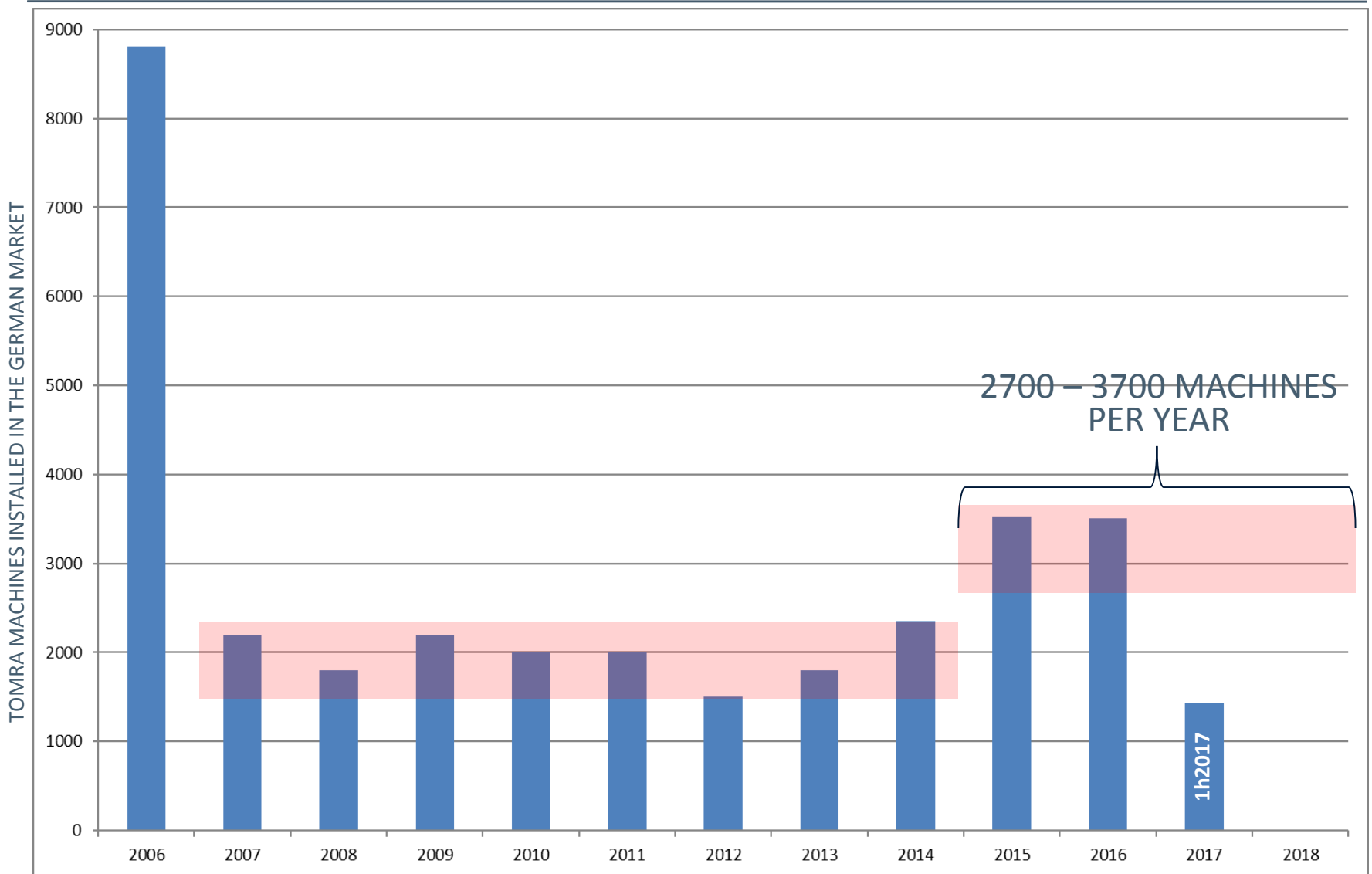
POTENTIAL NEW DEPOSIT MARKETS

Recently approved

Nearly approved

In progress

North America:
Possible expansion of deposit system in Quebec

Scotland:
Discussions ongoing

Croatia:
Opportunity for ~1,000 machines from 2016-2019

Spain:
Regional initiatives ongoing

Australia
NSW to introduce deposit from December 2017. QLD might follow in 2018

TOMRA

COLLECTION SOLUTIONS – FINANCIAL DASHBOARD

	RVM	Material Recovery		RVM	Material Recovery
Industry growth	0-10%	0-3%	**Market share**	75%	60%
Recurring revenue	~75%	90-100%	**Geographical diversity**	20-30 markets	10 markets
Profitability (ROCE)*	30-40%	~15%	**Cyclicality**	Low	Low

TARGETS 2013 -2018

Yearly growth 4 – 8%

EBITA-margin 18% – 23%

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TOMRA Sorting Solutions

STRONG REVENUE GROWTH SINCE INCEPTION IN 1996

Revenue development and key milestones
MNOK
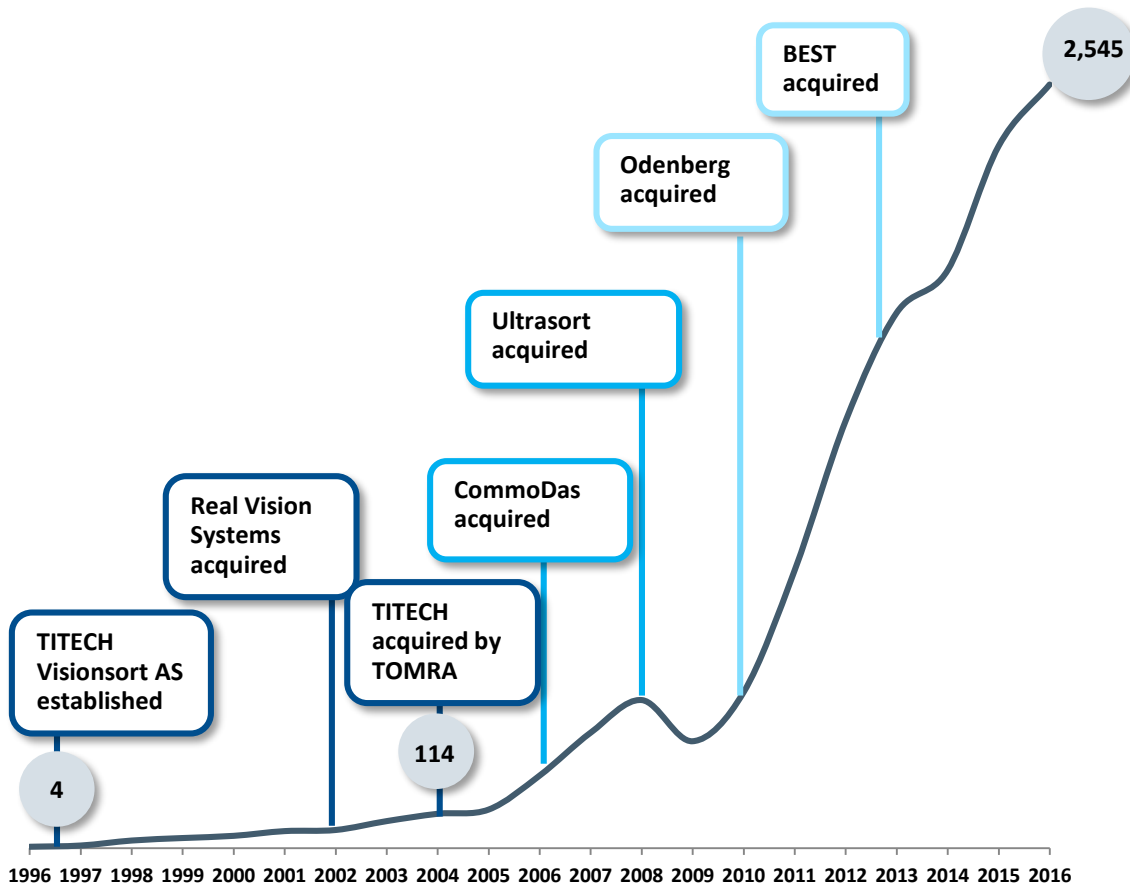
- Total revenue growth (organic plus inorganic) CAGR of ~30% per year from 2004-2016

  – Average annual organic growth for the same period was ~17%

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

TOMRA

SORTING VALUE PROPOSITION

1 OPERATIONAL EFFICIENCY REDUCES COSTS

SORTING VALUE PROPOSITION

There are three main components to our value proposition

2 INCREASED PURITY OF MATERIAL STREAM

3 INCREASES REVENUE
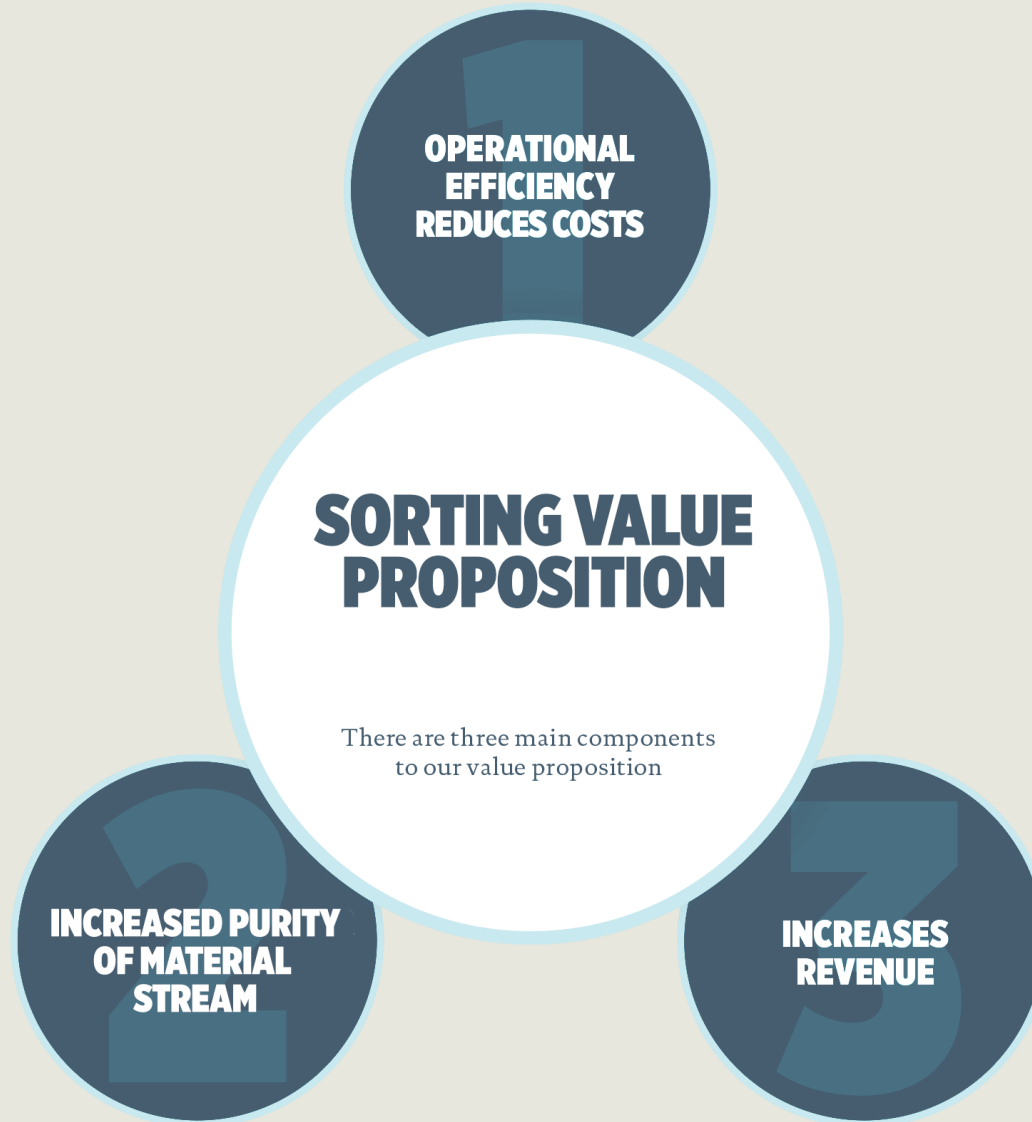
HOW DOES SENSOR BASED SEPARATION WORK?

- 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

High-tech sensors to identify objects

Feeding of unsorted material

High-speed processing of information (material, shape, size, color, defect, damage and location of objects)
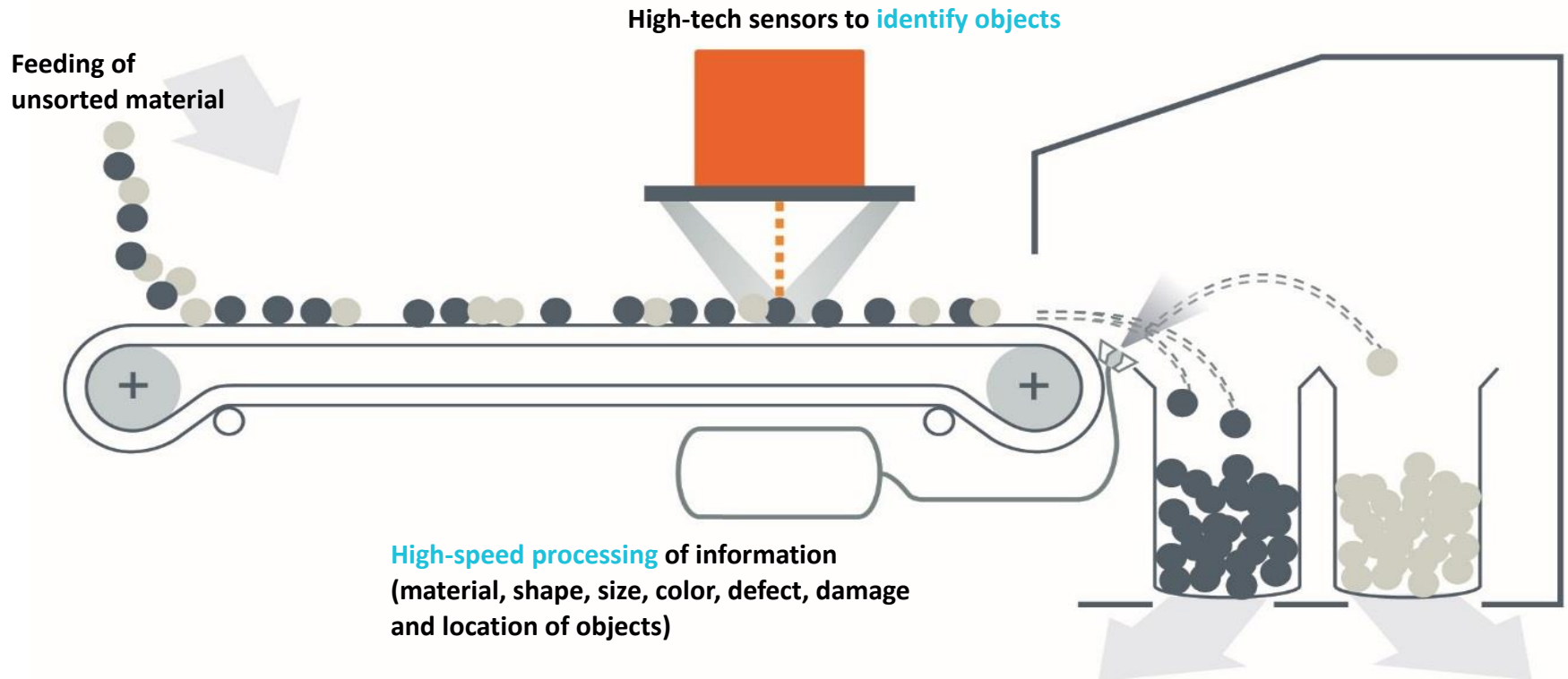
ADOPTION OF SENSOR-BASED SORTING AT DIFFERENT MATURITY LEVELS
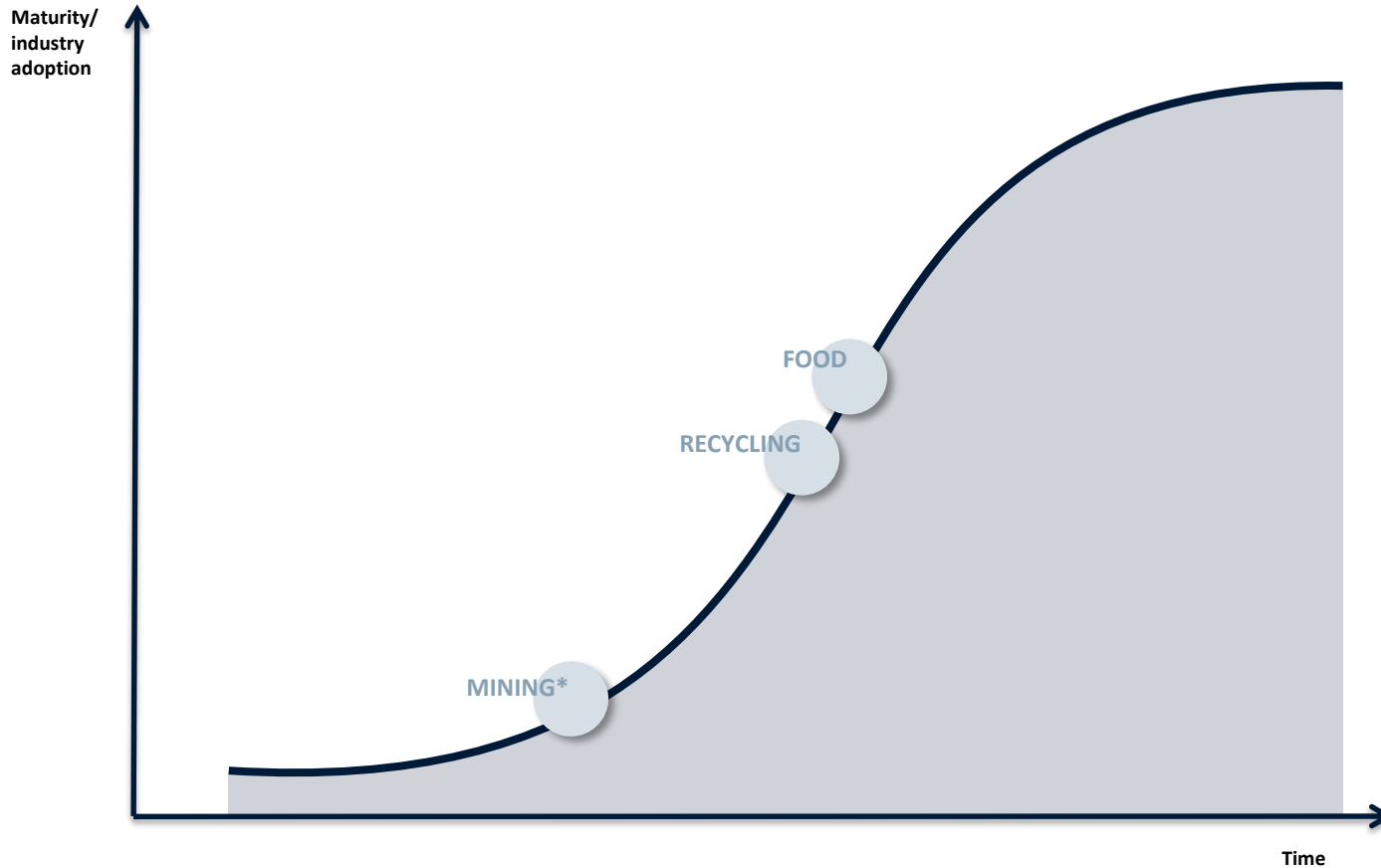
* In certain mining sub-segments, such as industrial minerals and diamonds, sensor-based sorting is a more mature technology

A COMMON SENSOR BASED TECHNOLOGY PORTFOLIO

[m]	Sensor/ Technology	Material Property	Segment
10^{-12} 10^{-11}	RM (Radiometric)	Natural Gamma Radiation	Mining
10^{-10} 10^{-9}	XRT (X-ray transmission) Low Energy X-ray	Atomic Density	Recycling, Mining, Food
10^{-8} 10^{-7}	XRF	X ray fluorescence (Elemental Spectroscopy)	Recycling, Mining
10^{-6} 10^{-5}	COLOR (CCD Color Camera)	Reflection, Absorption, Transmission	Recycling, Mining, Food
10^{-4} 10^{-3} 10^{-2}	Laser attenuation and PM (Photometric)	Monochromatic Reflection / Absorption of Laser Light Scattering analysis of Laser Light	Mining, Food
10^{-1}	NIR / MIR (Near/Medium Infrared Spectrometry)	Reflection, Absorption (Molecular Spectroscopy)	Recycling, Mining, Food
10^{1} 10^{2} 10^{3}	LIBS	Laser induced breakdown spectroscopy	Recycling, Mining
10^{4}	EM (Electro- Magnetic sensor)	Conductivity, permeability	Recycling, Mining, Food

Gamma-radiation

X-ray

Ultraviolett (UV)

Visible light (VIS)

Near Infrared (NIR)

Infrared (IR)

Microwaves

Radio waves

Alternating current (AC)

OUR PRODUCTS IS SERVING A WIDE RANGE OF DETECTION 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
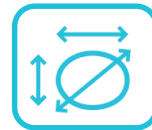
Shape & Size
Sort on length, width, diameter, area, broken-piece recognition, …

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**

TOMRA

CROSS UTILIZING OUR PORTFOLIO 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

TOMRA

SORTING UNWASHED POTATOES: WORKING PRINCIPLE

The product is spread uniformly onto the infeed belt and will be scanned by cameras in the different inspection zones. A few milliseconds later one type of material will be rejected by intelligent finger ejectors, positioned at the end of the conveyor belt, while the good products continue their way along the sorting line.
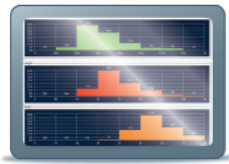
A Infeed (unsorted)

B Full width NIR and Color Vision sensors

C Intelligent finger ejectors

D Gentle handling convey chutes (optional)

INFEED (UNSORTED)

ACCEPT

TRASH
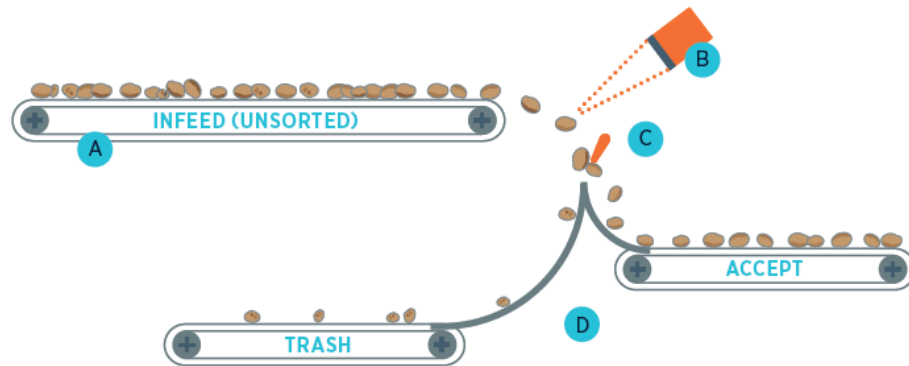
DEFECTS & BLEMISHES

Dirt Clod

Rot

Stones

Golf Ball

REPORTING

Reports can be generated with the following data:

Product Data

+ Average Length & Width mm(ins)

+ Length and Width distribution (size bins) mm(ins)

+ Total potato count #

+ Total reject count #

+ Stone, soil clod, rot, other %

Sorter Operation Data

+ Belt speed, average belt fill %

+ Object counts/second

+ Program running

- The Field Potato Sorter is ODENBERG's first venture into the **unwashed potato market**

- The machine uses unique near **infra-red technology** to remove soil clods, stones and rotten potatoes, in addition to the foreign material commonly found in fields such as golf balls, plastics, wood etc

- The FPS sorter should be used after a soil remover and is designed to fit existing grading equipment or be used as a standalone unit and can operate on harvested potato crop before and after storage

- The system also provides online potato size data for logging, plus sorter operating information

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MARKET SIZE AND POTENTIAL

Total annual market size

EUR million
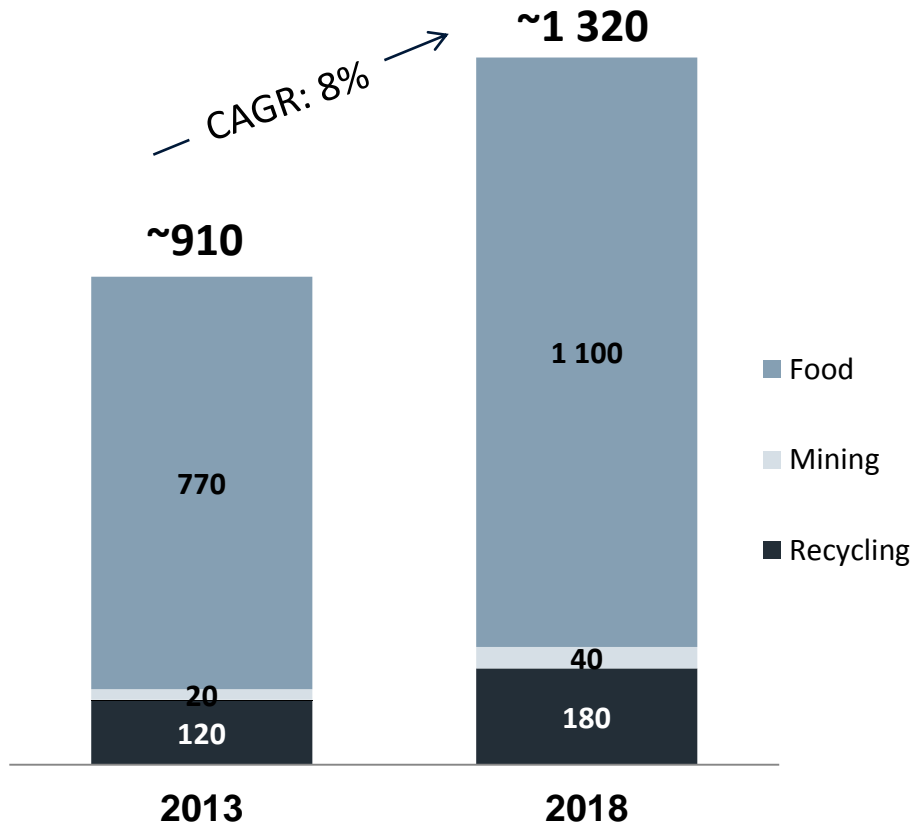
Market growth

- Market expected to grow at rate of around 7-9% per year
- A large part of growth from unlocking of dormant potential – only possible by developing new applications and technologies
- Some growth in "old world", but faster growth in "new world"

Source: TOMRA estimates and analysis

* Market size for food includes peeling, meat/process analytics, virgin materials and tobacco.

TOMRA

SORTING SOLUTIONS: OUR STRATEGY

	Food	Recycling	Mining
1 **Revenue growth of 10-15% over the period**	**More than doubling of emerging markets revenue** (but North America and Europe still 60% of business in 2018)		
	New applications representing 25% of revenue in 2018	15 M€ growth in **new segments**	Significant **expansion of sales network**
	New segments representing 10% of revenue in 2018	50% growth in **service revenue**	Succeed in **high volume segments**
	Grow with existing customers and double service revenue		
2 **Extend technology leadership**	**Common sorting platform** for all new product developments		
	Cross-utilization of sensor portfolio, e.g. NIR/BSI in food and laser in mining		
	Extend current leadership in core NIR and laser technologies, and develop new cutting edge sensors		
3 **Improve operational efficiency**	Design changes, economies of scale and purchasing power to **lower COGS**		
	Consolidation of manufacturing and sourcing; **increased sourcing from low cost countries**		
	Streamlining of organization and processes to **take out synergies** across business units		
	Target to **grow profits** at several percentage points faster than revenue		

TOMRA

BACKLOG DEVELOPMENT AND MOMENTUM

Order intake

Order backlog

Revenues

TSS ex Compac   Compac
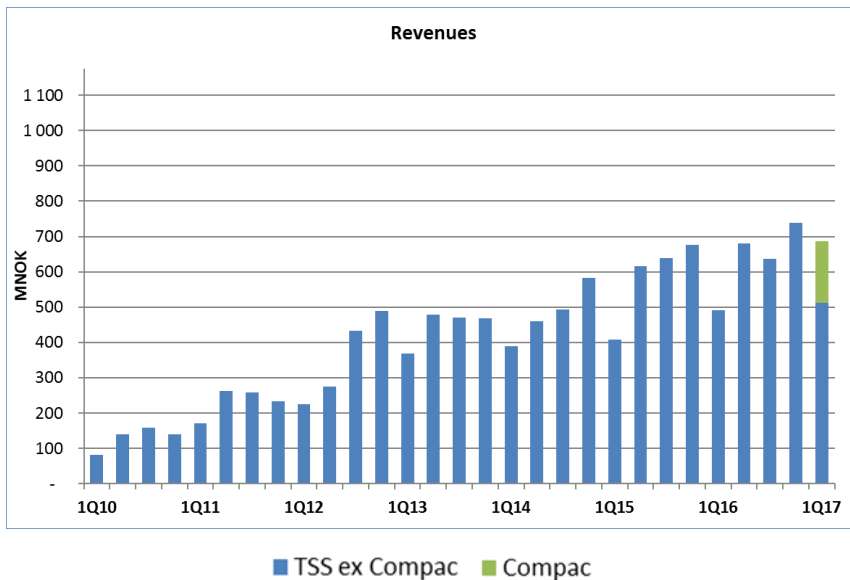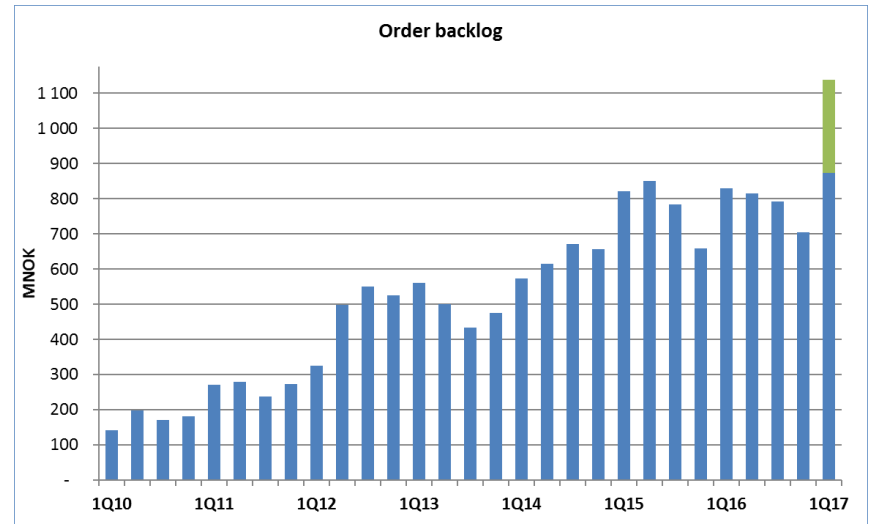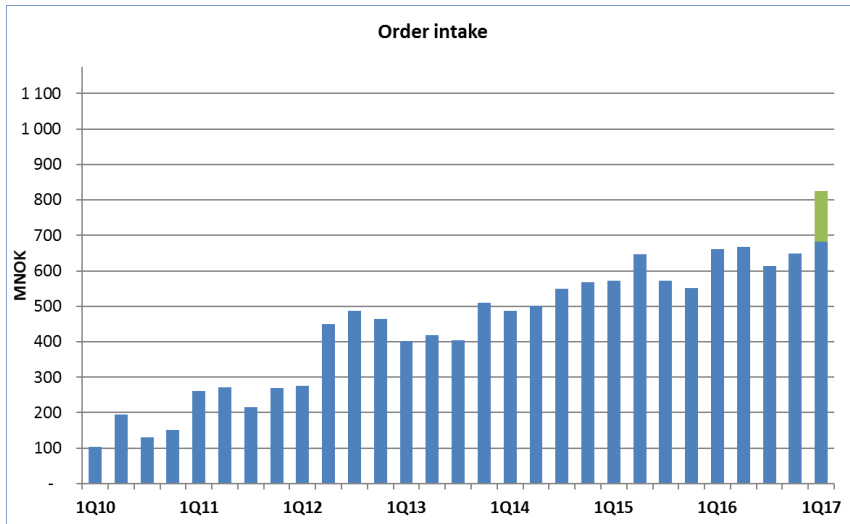
Tomra Sorting Solutions (TSS) without Compac:
- Delivered all time high order intake of 682 MNOK in the quarter, compared to 661 MNOK same quarter last year
- Revenues came in at 512 MNOK (up from 491 MNOK in 1Q16)
- With an all time high order intake, and somewhat limited number of orders taken to P/L, the quarter ends with a healthy order backlog of NOK 874 MNOK

Compac
- Reported revenues of 175 MNOK in the quarter and ends the quarter with a backlog of 265 MNOK

- Estimated backlog conversion ratio in 2Q17, including Compac: 80%-85%*

* Based upon current production and delivery plans, the revenues in 2Q17 are estimated to be approximately 80-85% of order backlog at the end of 1Q17

TOMRA

42

FINANCIAL DASHBOARD – SORTING SOLUTIONS

Industry Growth

5-15%

Recurring revenue

15-20%

Profitability (ROCE)*

45-55%

	Food	Recycling	Mining
Market share	40-50 %[(i)]	55-65 %	40-50 %
Geographical diversity	45-50 markets	40-50 markets	45-50 markets
Cyclicality	Medium	High	High

TARGETS 2013 -2018

Yearly organic growth 10-15%

Geographical expansion

EBITA-margin 18-23%

(i) In markets served. Total food sorting (incl. rice and lane sorting*) 12-15%

* Ex goodwill

SENSOR-BASED SORTING IN ACTION

YIELD INTO USAGE

TOMRA
SORTING SOLUTIONS | FOOD
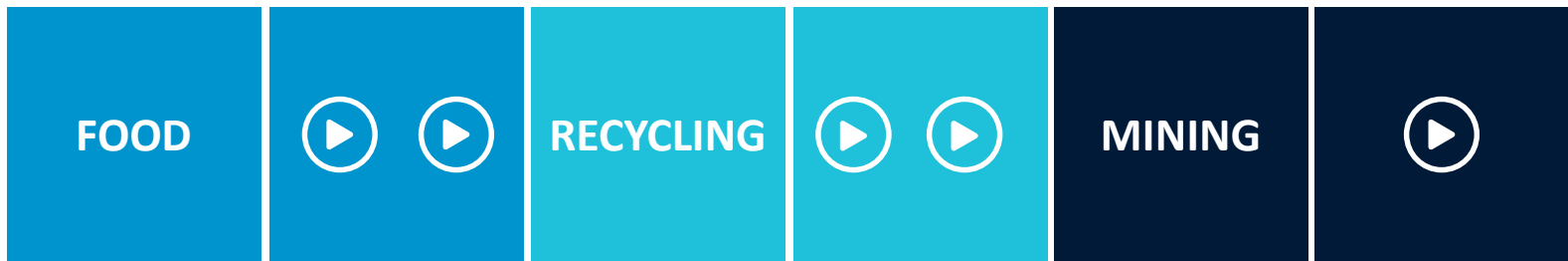
GROWTH IN GLOBAL FOOD DEMAND WILL SPUR INVESTMENTS IN AUTOMATION

Drivers and trends

- **Increasing food consumption in emerging markets**, more mid-class consumers

- Industry focus on **increased productivity** and **reducing costs** through automation & quality control

- **Higher quality demands** from the consumers

- **Stricter regulations** from governments concerning **food safety , health & traceability**

- Shift towards packaged **convenience food and fast food**

- **Risk of claims & recalls**

  – Social media snowball effect (Twitter, Facebook, etc.)

- Globalization of brands and sourcing set up

- Scarcity & expense of (seasonal) **manual labor**

- Consolidation in the retail and processing sectors

- Adoption of technology in emerging markets

TOMRA

MARKET SIZE FOOD SORTING*

Total annual market size

EUR million

CAGR: 7%

~770 (2013)

~1 100 (2018)

2013   2018

* Market sizes shown include peeling, meat/process analytics, virgin materials and tobacco.

Market growth

- Total market for food sorting growing around 6-8% per year

- Approximately a third of total growth is dormant potential

  – only unlocked by development of new applications and technologies

- New world share grows but the two old world champions (Europe & Americas) remain strong

Expected development in geographical revenue contribution

2018
- 31 %
- 35 %
- 34 %

2013
- 26 %
- 43 %
- 31 %

■ ROW   ■ US   ■ EUR

TOMRA

WE ARE UNIQUELY POSITIONED TO SERVE THE ENTIRE VALUE CHAIN WITH OUR PRODUCT PLATFORM

Potatoes fresh from the field

FM sort with product data

Storage

FM sort with product data

Wash

FM, quality & size sort with product data

Stored in bunkers by size: 1, 2, 3

Repeeling

Reject   Rework

Peeling Line

FM, quality & size sort with product data

Automated true peeler control

Reduced loss and water usage

Lowest-loss peeling solution

Hydro cut

Preheating

Accept

Product analysis Defect, length & FM sort

Blanching

Drying

Frying

Freezing

Sort to grade Product analysis Defect, length & FM sort

Packaging

Distribution

Sales of potato-related products account for about 25% of the sales in the food division

INTRODUCTION TO COMPAC (ANNOUNCED 12.10.16)

Introduction

- Compac is a New Zealand-based provider of post-harvest solutions and services to the global fresh produce industry

- Founded in 1984 by Hamish Kennedy with HQ in Auckland NZ and has around 700 employees

- Compac has a leading position within sorting of apples, kiwifruit, cherries, citrus, stonefruit, avocados and tomatoes

- The company designs, manufactures, sells and services packhouse automation systems that sort produce based on their weight, size, shape, colour, surface blemishes and internal quality

- Fruit handling equipment singulates fruits into lanes, in-feeds (wash and wax), inspects, sorts/grades and partly packages

- About 6,000 Compac sorting lanes have been sold worldwide in over 40 markets

Spectrim: Compac's latest sorter

- The sorter was launched in 2015

- Represents an unmatched capability of external defect detection and an advanced 3D imaging and modelling

- For sorting of apples, citrus, stone fruit and kiwi fruit

- Uniform lighting that minimizes shadows and reflections

- Sensors and cameras generate up to 500 images of every piece of produce, creating an accurate 3D model of each fruit

- Three different wavelengths that can be configured to target specific defects: color, blemishes, bruising

Key Financials (NZDm)[1]

(1) Compac's fiscal year ends 30th of June. FY16 is equal to the period 1 July 15 to 30th of June 16 . FY13 and FY14 extracted from financial statements. FY15 and FY16 is management accounts, adjusted for one-off income and expenses. Not harmonised with TOMRA accounting principles
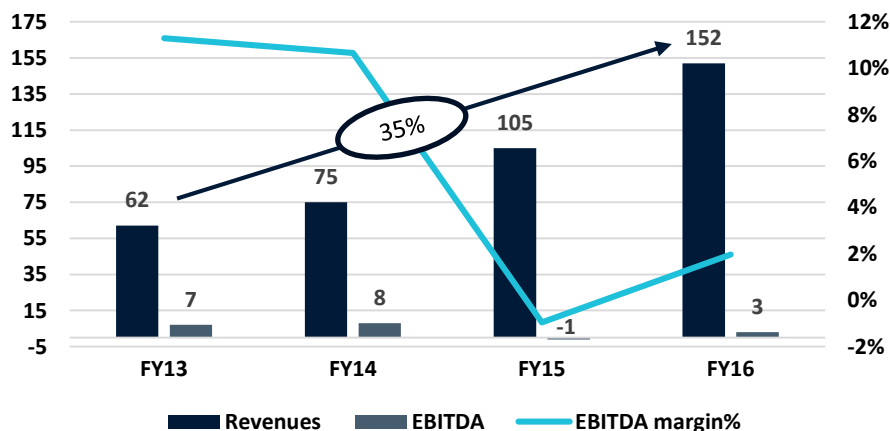
TRANSACTION RATIONALE ELABORATED

Attractive Market	• Lane sorting is a **fast-growing adjacent segment** with a ~8% historical CAGR and strong future outlook • **Key market trends drive further growth**, especially in the developing markets as a substitute for manual labor as we see wages increase • The industry is **yet to mature** and fully industrialize
Complimentary geographical footprint	• **Geographic expansion:** Utilizing the different footprint and strengths in certain markets • Stronger in **China** together
Application fit expansion	• TOMRA is currently present in processed fruit and vegetables, Compac serves as a "natural" **expansion also into fresh fruit**
Confirming our leading position in food	• Lane and Bulk Sorting **cater to same client needs,** but offers complimentary functionality • Possibility to create a comprehensive **Food Sorting solution provider** • **First mover advantage in combining Lane and Belt sorting**: TOMRA to be the first company, which is active in all technology platforms used for sensor-based sorting of Food
Mutual benefits	• Potential in **data capability, IoT and solution development** • Combine current offering: **Bulk presorter in front of lanes** • Potato business: Utilizing TSS strength in potatoes and the **upcoming demand for sizing** • Complimentary fit within **food traceability and food safety** (emerging demand)
Why Compac	• Strong **potential**. Ongoing and planned business improvement initiatives and funding to get in shape • Strong **brand** name, recognized as the technology leader (Spectrim) • **Established complimentary footprint** in the US, NZ, Australia and Latin America • Good platform for growth

TOMRA

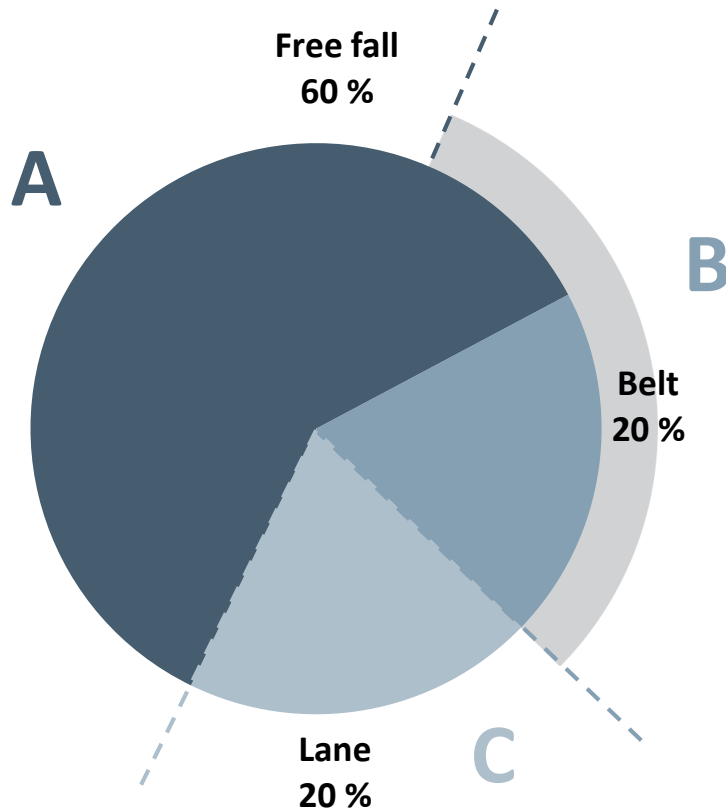# TOMRA HAS THE BROADEST FOOTPRINT WITHIN THE FOOD SORTING UNIVERSE

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

CURRENT FOCUS

M&A
compac

| BELT | CHUTE | LANE/MULTI-DROP |
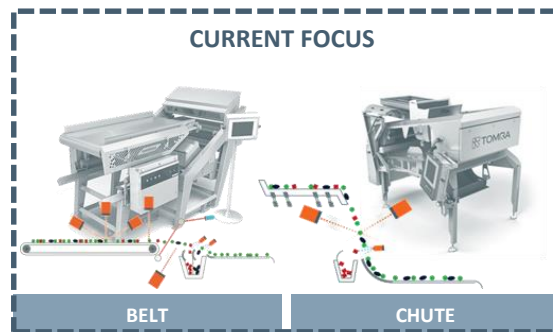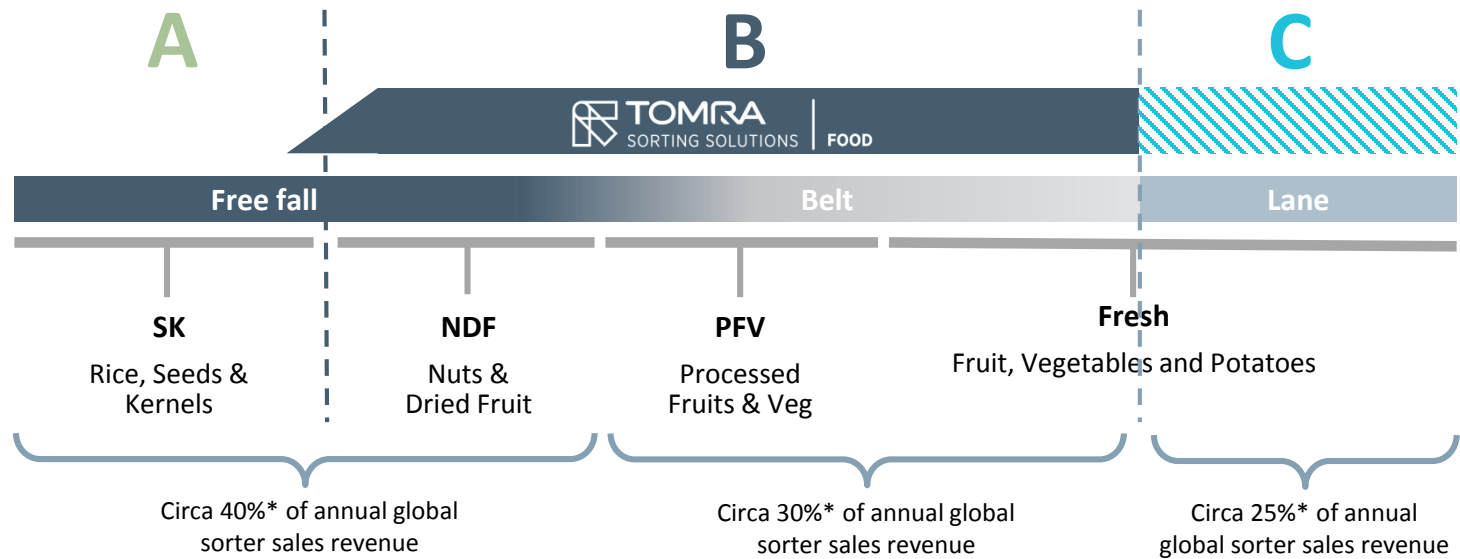
BULK SORTING

SINGULATED SORTING

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

TOMRA

THREE WAYS OF SORTING WITHIN THE FOOD SEGMENT

Free fall
60 %

A

B

Belt
20 %

C

Lane
20 %

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

FOOD COMPETITIVE LANDSCAPE

A

B

C

# of installed machines

>3,000

1,000-3,000

0-1,000

MEYER

BÜHLER SORTEX

TAIHO 泰禾

SATAKE

DAEWON GSI
DAEWON GLOBAL SYSTEM INTEGRATION

KEY Technology

CIMBRIA

MAF RODA

raytec VISION

AWETA

GREEFA

UNITEC
We work for your results

CONCEPT ENGINEERS

REEMOON 绿萌

10-25 markets

25-50 markets

>50 markets

Geographic presence

Revenue from sensor-based sorting and related peripherals
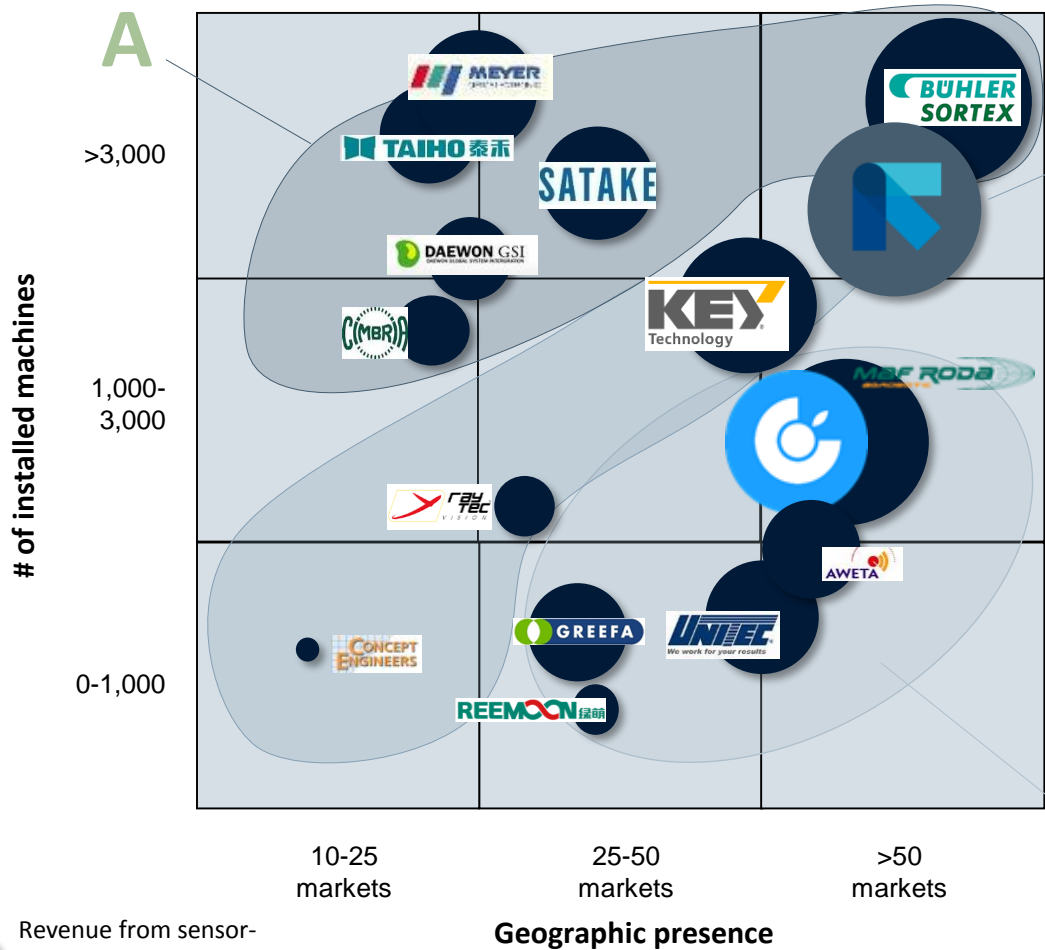
TOMRA competitive positioning

- Size (revenues)
- Widest range of applications (150+)
- Broadest technology base
- Geographic reach (~80 countries)
- Market share in targeted segments
- Transformative solutions (Q-Vision)
- **Market share: 40-50%** in markets served*

Source: TOMRA estimates and analysis

* Total Food sorting (also including rice and lane sorting): 12-15%

TOMRA

OUR BROAD COVERAGE AND TECHNOLOGY BASE IS SETTING US APART IN BULK SORTING

	DRIED FRUIT	NUTS	FRESH CUT	FRUIT	VEGETABLES	MEAT	POTATOES	SEAFOOD
FOOD	• Apricots • Craisins • Figs • Prunes • Raisins	• Almonds • Cashews • Hazelnuts • Macadamias • Peanuts • Pecans • Pistachios • Seeds • Walnuts	• Baby leaves • Iceberg lettuce • Spinach • Spring mix	• Apples • Blackberries • Blueberries • Cherries • Citrus • Cranberries • Peaches & pears • Raspberries • Strawberries • Tomatoes	• Beans • Beet • Broccoli • Carrots • Corn • Cucumbers • IQF vegetables • Jalapenos/ Peppers • Onions • Peas • Pickles	• Bacon bits • Beef • IQF meat • Pork • Pork rind	• Washed • French fries • Unpeeled • Peeled • Potato chips • Specialty products • Sweet	• Mussels • Scallops • Shrimps
SENSOR TECHNOLOGY	LASER NIR VIS X-RAY	LASER CAMERA X-RAY	LASER CAMERA	LASER CAMERA NIR VIS	LASER CAMERA NIR VIS	LASER CAMERA NIR	LASER CAMERA NIR VIS	LASER CAMERA NIR VIS X-RAY

TOMRA

OUR FOOD CUSTOMERS

REDUCING COMPLEXITY: MERGING PLATFORMS FOR OUR NEXT GENERATION MACHINES

High-Level Product Roadmap FOOD (Illustrative)

Simplification of Product Landscape
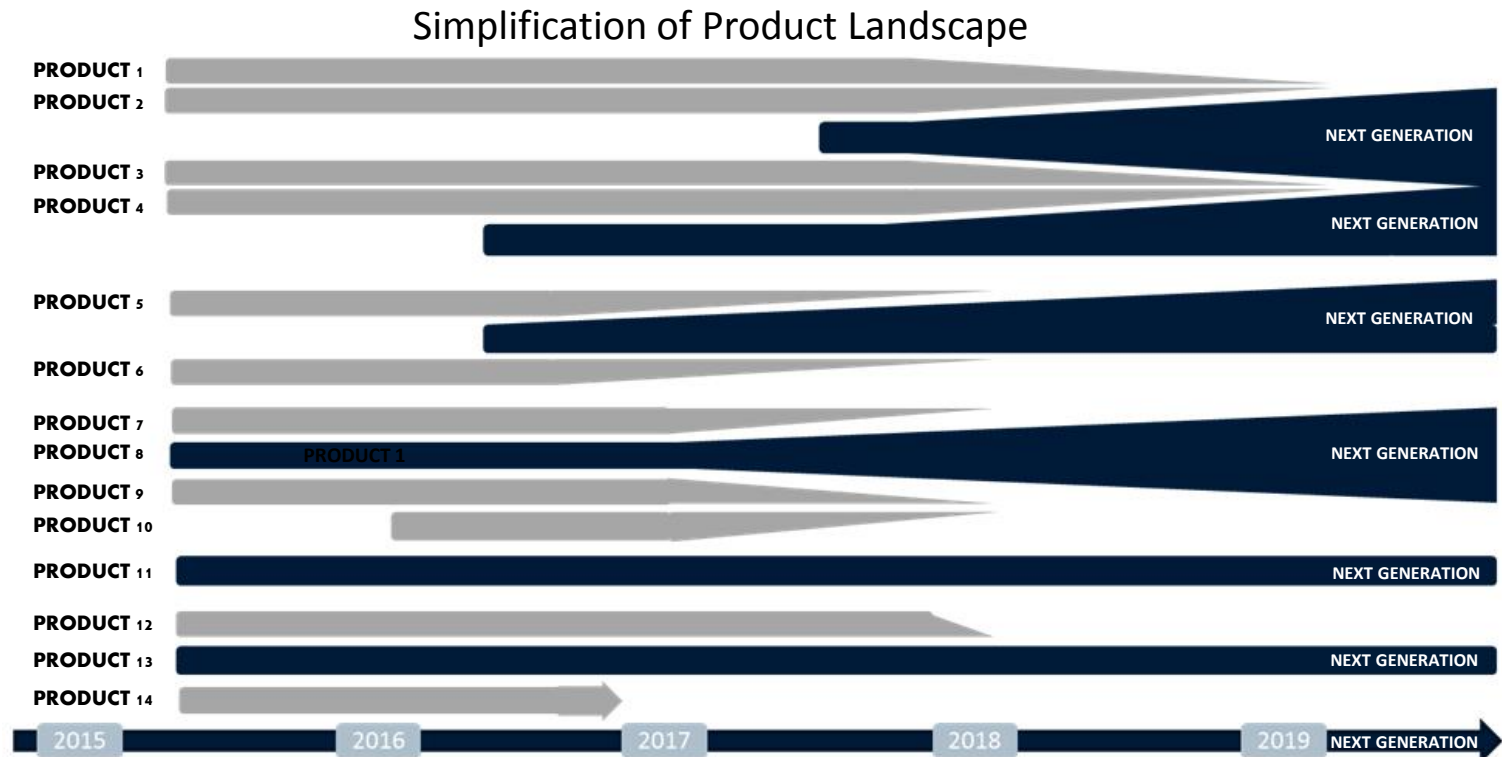
14 platforms today will be reduced to 6 platforms over the next five years

ONCE INTO ⬡R AGAIN AND AGAIN

⬡R TOMRA
SORTING SOLUTIONS | RECYCLING

GLOBAL DRIVERS FOR THE RECYCLING SEGMENT

Drivers and trends

- **Consumption and industry production level increase**

- Favorable changes in **regulatory framework** (DSD, WEEE, ELV, etc)

- **Commodity price levels and fluctuation**

- **Access to financing**

- **Demand** for recycled **raw materials**

- Increasing **labor costs** in emerging world drive adoption of automatic sorting technologies

- Some countries in Western Europe partly saturated

- Pre-sorted (plastics) still door opener in new markets

- Municipal Solid Waste (MSW) important in emerging countries

- More aggressive pricing from competitors affect market

TOMRA

ONLY A FRACTION OF THE WASTE VOLUME IS HANDLED BY SENSOR BASED SORTING

Sensor based sorting is competing with different technologies

Landfill

Incineration

Separate Collection

Scavengers

Hand Sorting

LEGISLATIVE FRAMEWORK - PROMOTING RECYCLING

|	Description	Target	
Packaging Directive	• Rules on the production, marketing, use, recycling and refilling of containers of liquids for human consumption and on the disposal of used containers • 2014 review included new targets • 2015 revision includes lightweight plastic carrier bags	• Recycling and reuse of municipal waste: 70% by 2030 • Recycling and reuse of packaging waste: 80% by 2030 • Phasing out landfilling by 2025 of recyclable waste in non hazardous landfills	
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	• The overall aim is for the EU to recycle at least 85% of electrical and electronics waste equipment by 2016	
Landfill Directive	• The objective of the Directive is to prevent or reduce as far as possible negative effects on the environment • In particular: surface water, groundwater, soil, air, and on human health from the landfilling of waste by introducing stringent technical requirements for waste and landfills.	• Amount of biodegradable municipal waste reduced to 50% in 2009 and to 35% in 2016 (compared to 1995 levels)	
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	• Reuse and recycling: 85% • Reuse and recovery: 95%	

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

TOMRA

MARKET SIZE RECYCLING

Total annual market size

EUR million

CAGR: 8%

120
2013

180
2018
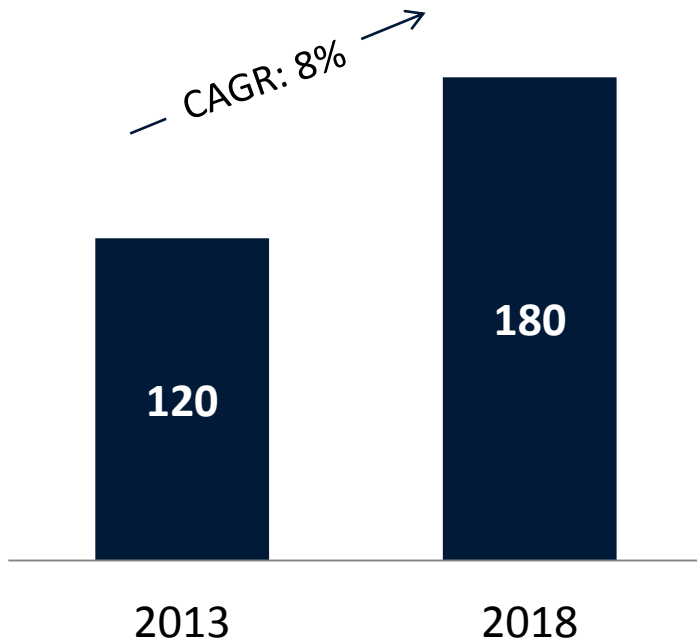
Market growth

- Market expected to grow at around 7-9% per year, lower than previous expectations due to economic slowdown

- Demand in old world flattening, while new markets expected to drive growth

- Existing segments will serve as a base, whilst the majority of growth will come from:

  — New geographies

  — New applications

  — New products

RECYCLING: APPLICATIONS AND SENSOR TECHNOLOGY

TOMRA SORTING SOLUTIONS | **RECYCLING**

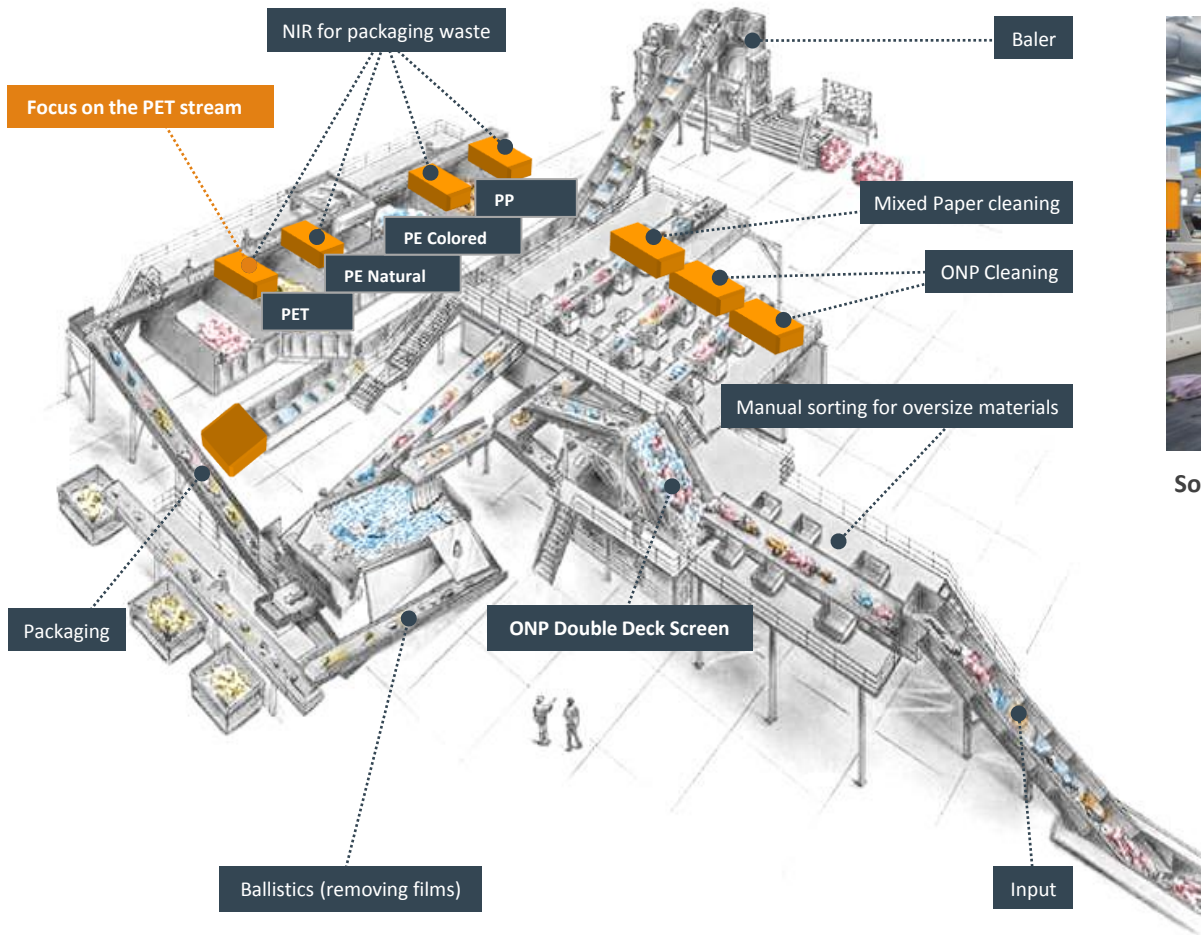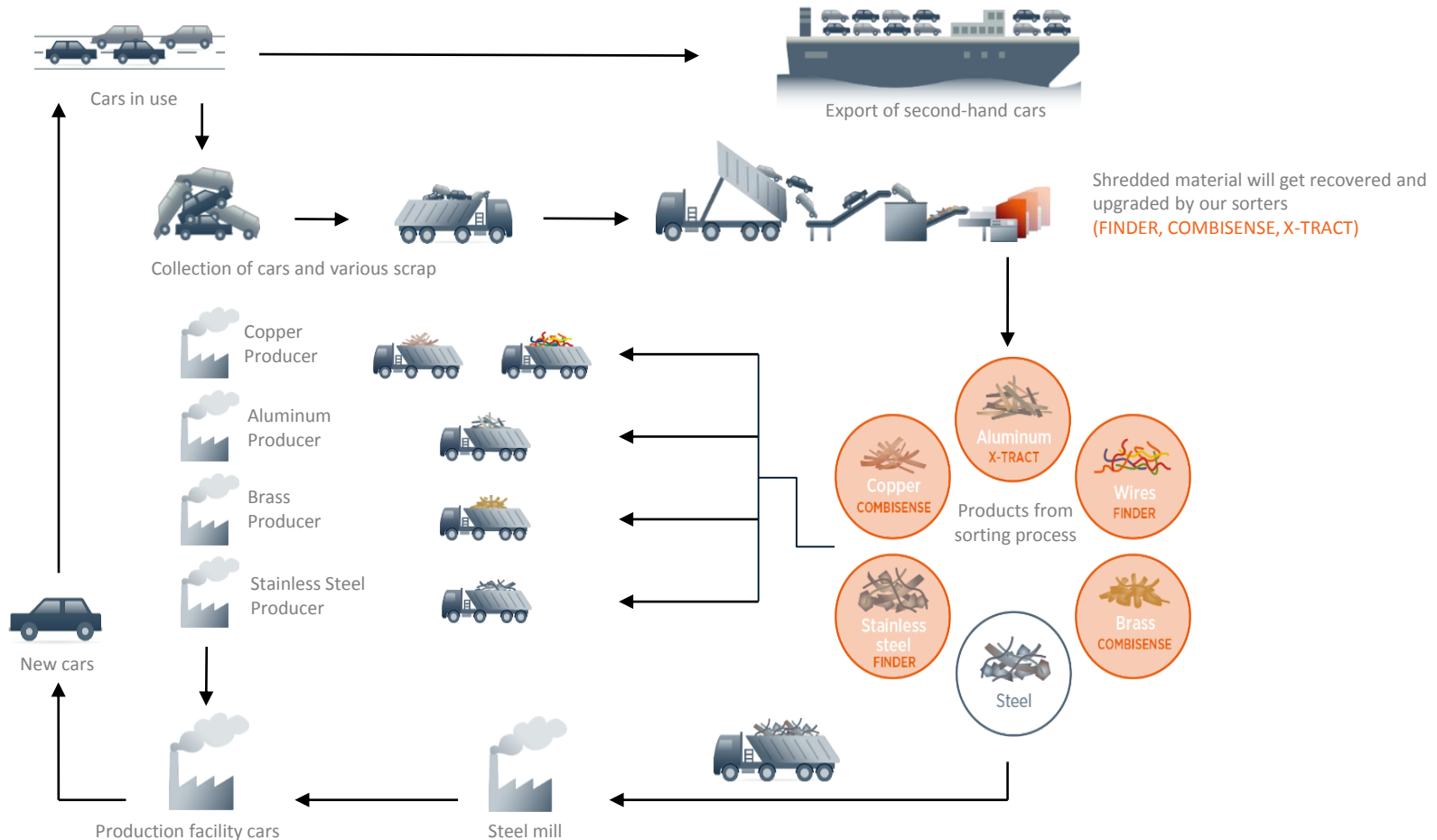|	HOUSEHOLD WASTE	PACKAGING	C & D	AUTOMOBILE SHREDDER	ELECTRONIC SCRAP
MATERIAL	• Hard plastics • Plastic film • Mixed paper • RDF • Metals • Organics/ Biomass	• Plastics • Plastic film • Cardboard • Mixed paper • Deinking paper • Metal	• Inert material • Plastic film • Metals • Wood • Paper & Cardboard • Plastics	• NF metal • Stainless steel • Copper cables • Copper • Brass • Aluminum • Meatball sorting	• Printed circuit boards • Non-ferrous metal concentrates • Cables • Copper • Brass • Stainless steel • Meatball sorting
SENSOR TECHNOLOGY	NIR EM VIS XRT	NIR VIS EM	NIR VIS XRT EM	NIR VIS XRT EM COLOR XRF	XRT EM NIR COLOR XRF

| Mixed paper | PE/PP flakes | Cleaned wood | Copper Wire | Brass |

TOMRA

AUTOMATED WITH TOMRA SORTING UNITS

NIR for packaging waste

Baler

Focus on the PET stream

PP

PE Colored

PE Natural

PET

Mixed Paper cleaning

ONP Cleaning

Manual sorting for oversize materials

Packaging

ONP Double Deck Screen

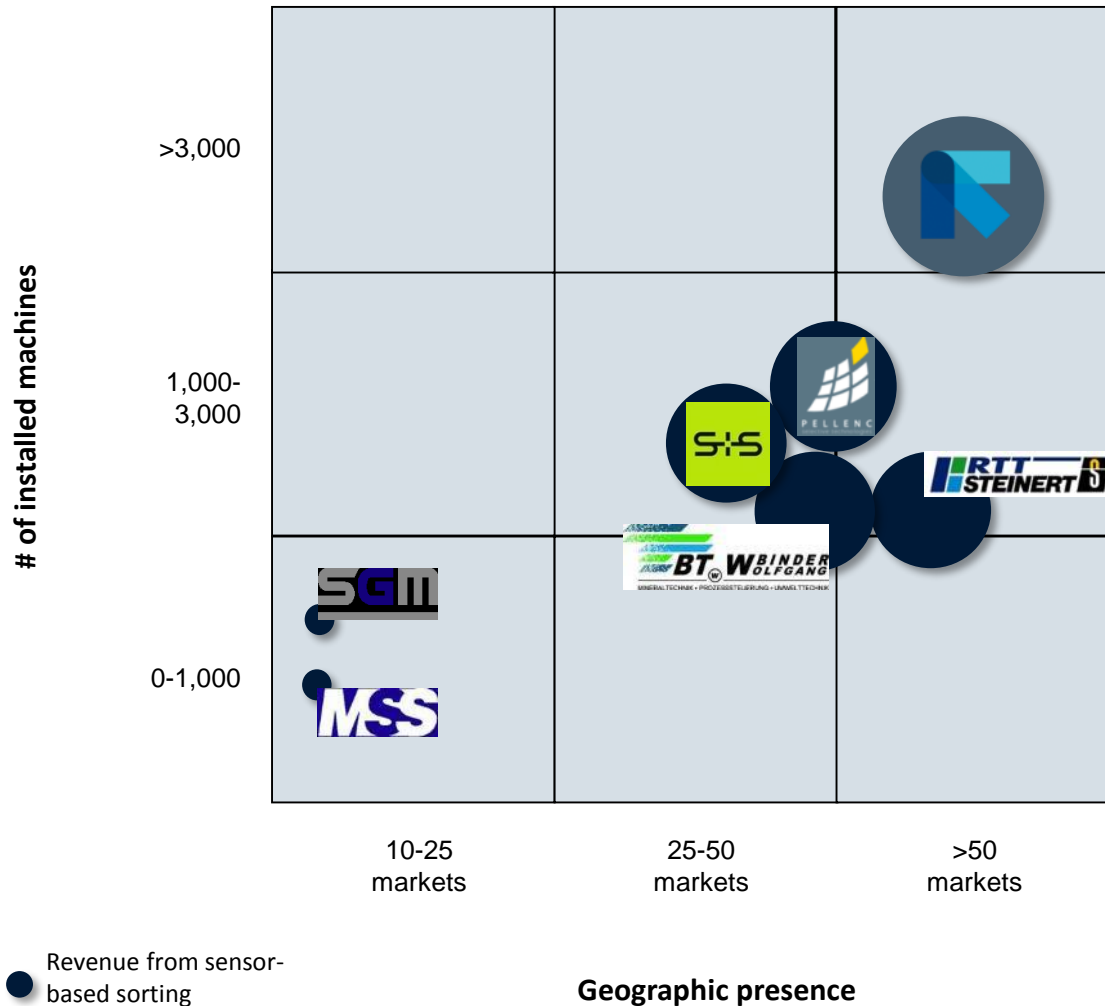Ballistics (removing films)

Input

Sorting of Municipal Solid Waste, Cyprus

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

Life cycle of Steel from End-of-life vehicles

Cars in use

Export of second-hand cars

Collection of cars and various scrap

Shredded material will get recovered and upgraded by our sorters
(FINDER, COMBISENSE, X-TRACT)

Copper Producer

Aluminum Producer

Brass Producer

Stainless Steel Producer

New cars

Copper
COMBISENSE

Aluminum
X-TRACT

Wires
FINDER

Products from sorting process

Stainless steel
FINDER

Steel

Brass
COMBISENSE

Production facility cars

Steel mill

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

SOURCE
INTO
RESOURCE

TOMRA
SORTING SOLUTIONS | MINING

GLOBAL DRIVERS FOR THE MINING SEGMENT

- **Energy costs** and **water stress** are major drivers

- **Demand of all commodities** is expected to grow with increased population and urbanization in the drivers seat

- **Increasing labor costs** in emerging world drive adoption of automatic sorting technologies

- **Mining companies capex** impact the investment sentiment

- Sensor based sorting is considered to be a future solution

  - Hardest competition comes from alternative well proven technologies

TOMRA

MARKET SIZE MINING

Total annual market size

EUR million

CAGR: 15%

2013	2018
20	40
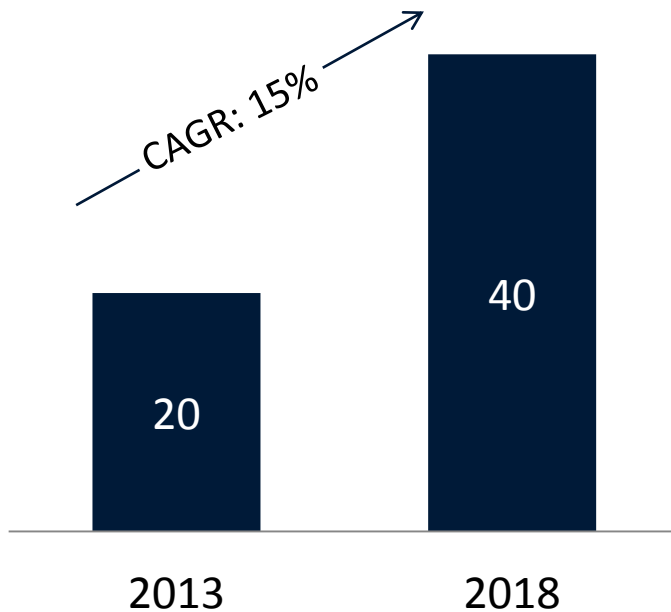
Market growth

- Capex has declined recent years

- Sensor based machines sales expected to grow at around 15% per year

  — Growth is however conditional on new applications and technologies being developed

- Sensor based sorting is still a technology to be accepted and growth in this niche has been limited in recent years

MINING: APPLICATIONS AND SENSOR TECHNOLOGY

|	INDUSTRIAL MINERALS	BASE & Fe METALS	FUEL/ ENERGY	PRECIOUS METALS	DIAMONDS & GEMS	METAL SLAG
COMMODITY	• Calcite • Quarts • Feldspar • Magnesite • Talcum • Dolomite • Salt	• Copper • Zinc • Nickel • Tungsten • Iron • Manganese • Chromite	• Coal • Uranium	• Gold • Platinum	• Diamonds • Tanzanite • Colored gemstones	• Stainless steel • Copper • Chrome
SENSOR TECHNOLOGY	COLOR XRT NIR XRF	XRT COLOR EM NIR	XRT RM	XRT COLOR XRF NIR	COLOR XRT XRF NIR	XRT XRF EM

| Calcite | Copper | Coal | Gold | Diamonds | Ferro Silica Slag |

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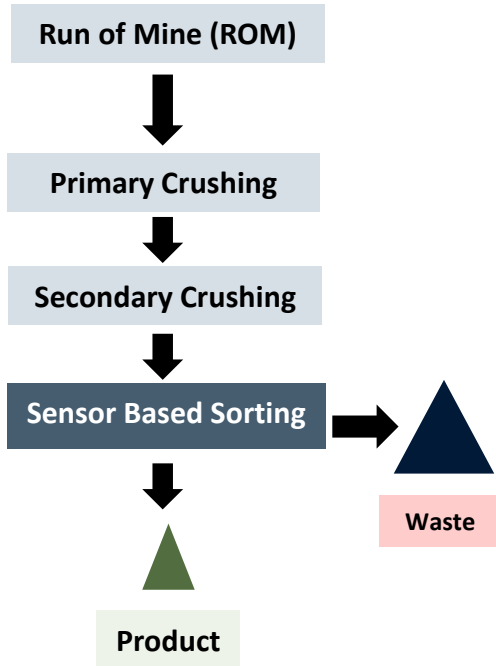
- 15% to 50% of the ROM can be rejected in an early stage of the process (application dependent)
- These low grade waste rocks don't need to be transported, crushed, grinded or further treated
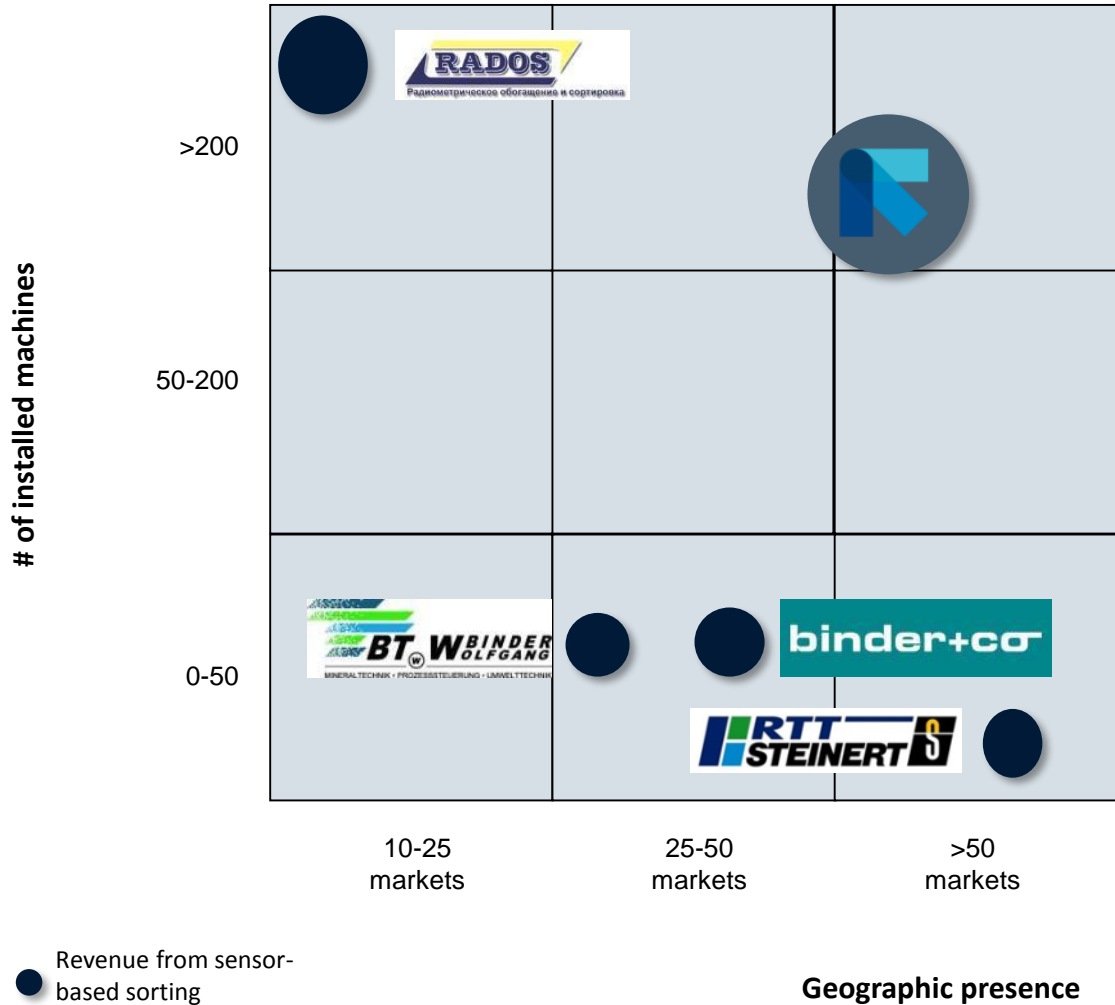
Mining process:
Metal mining

Run of Mine (ROM)

↓

Primary Crushing

↓

Sensor Based Sorting → ▲ Waste

↓

Beneficiation Plant:
Milling
Screening
DMS
Flotation → ▲ Tailings (fines)

↓

▲ Product
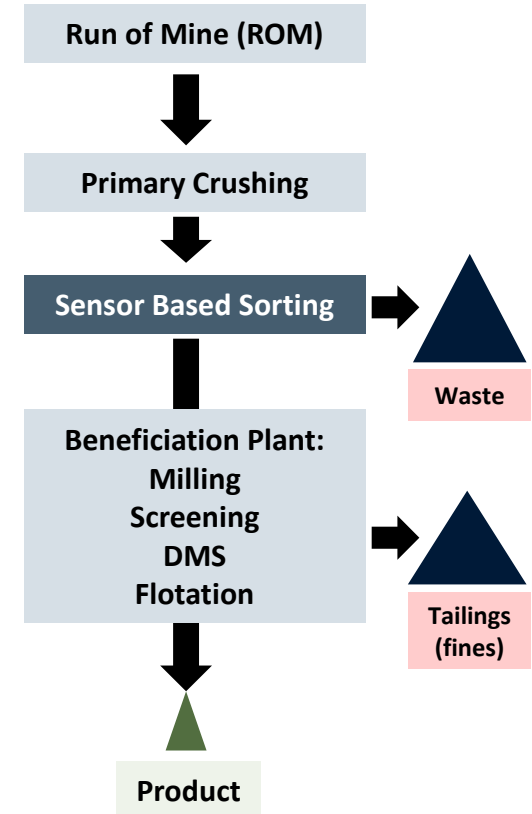
Current segment

Potential new segment

TOMRA

MINING COMPETITIVE LANDSCAPE

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

# of installed machines (y-axis): >200, 50-200, 0-50

Geographic presence (x-axis): 10-25 markets, 25-50 markets, >50 markets

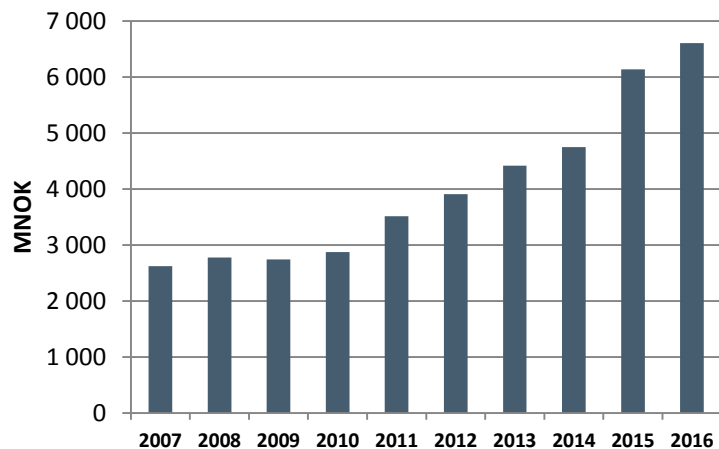Revenue from sensor-based sorting

Source: TOMRA estimates and analysis

Historical financial performance

KEY FINANCIALS DEVELOPMENT

Revenues

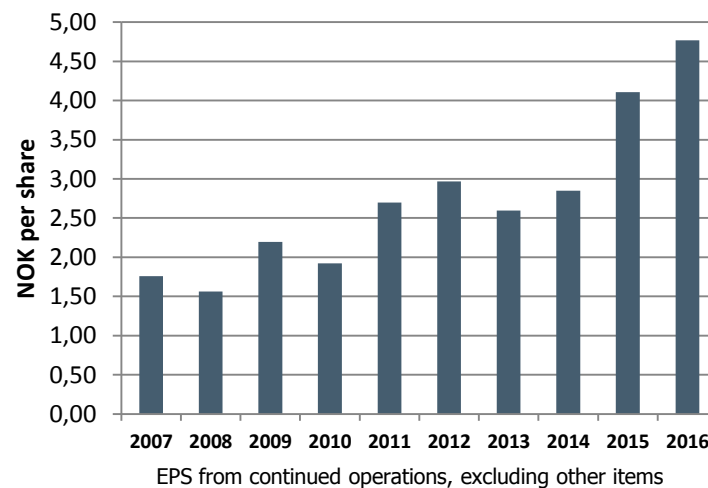**Gross Contribution and margin**
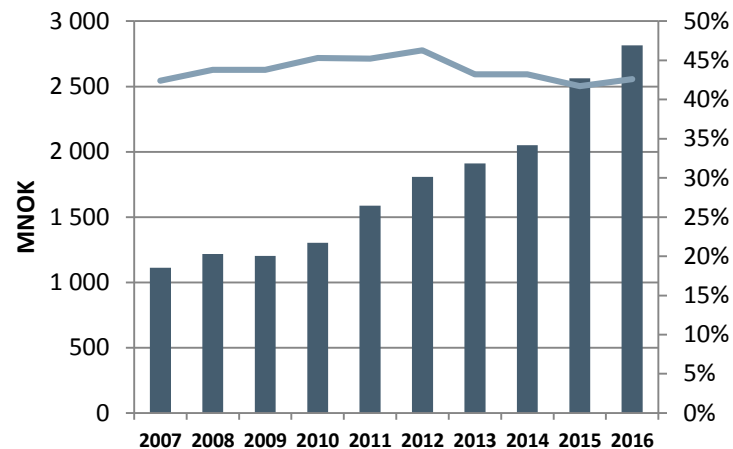
EBITA and margin

Earnings per share


EPS from continued operations, excluding other items

TOMRA
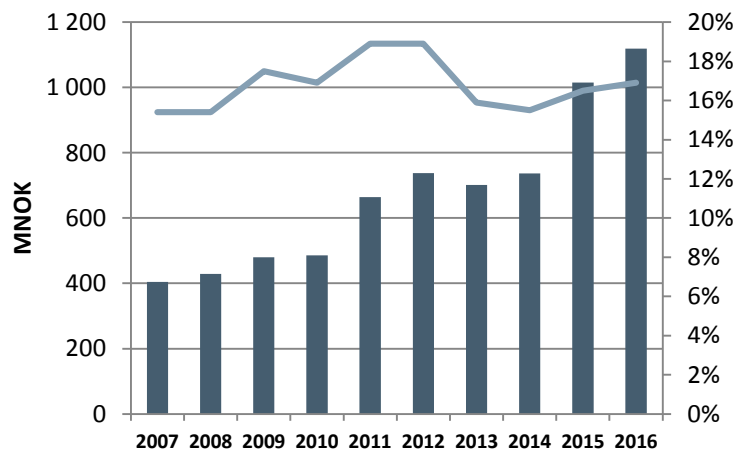
FINANCIAL HIGHLIGHTS
BALANCE SHEET, CASH FLOW AND CAPITAL STRUCTURE

Amounts in NOK million	30 June 2017	30 June 2016	31 Dec 2016
ASSETS	**8,260**	**7,355**	**7,115**
• Intangible non-current assets	3,364	2,810	2,750
• Tangible non-current assets	839	793	801
• Financial non-current assets	362	318	342
• Inventory	1,220	1,275	1,127
• Receivables	1,976	1,766	1,696
• Cash and cash equivalents	499	393	399
LIABILITIES AND EQUITY	**8,260**	**7,355**	**7,115**
• Equity	4,275	3,846	4,192
• Minority interest	197	186	178
• Interest bearing liabilities	1,480	1,252	760
• Non-interest bearing liabilities	2,308	2,071	1,985

Operating cash flow
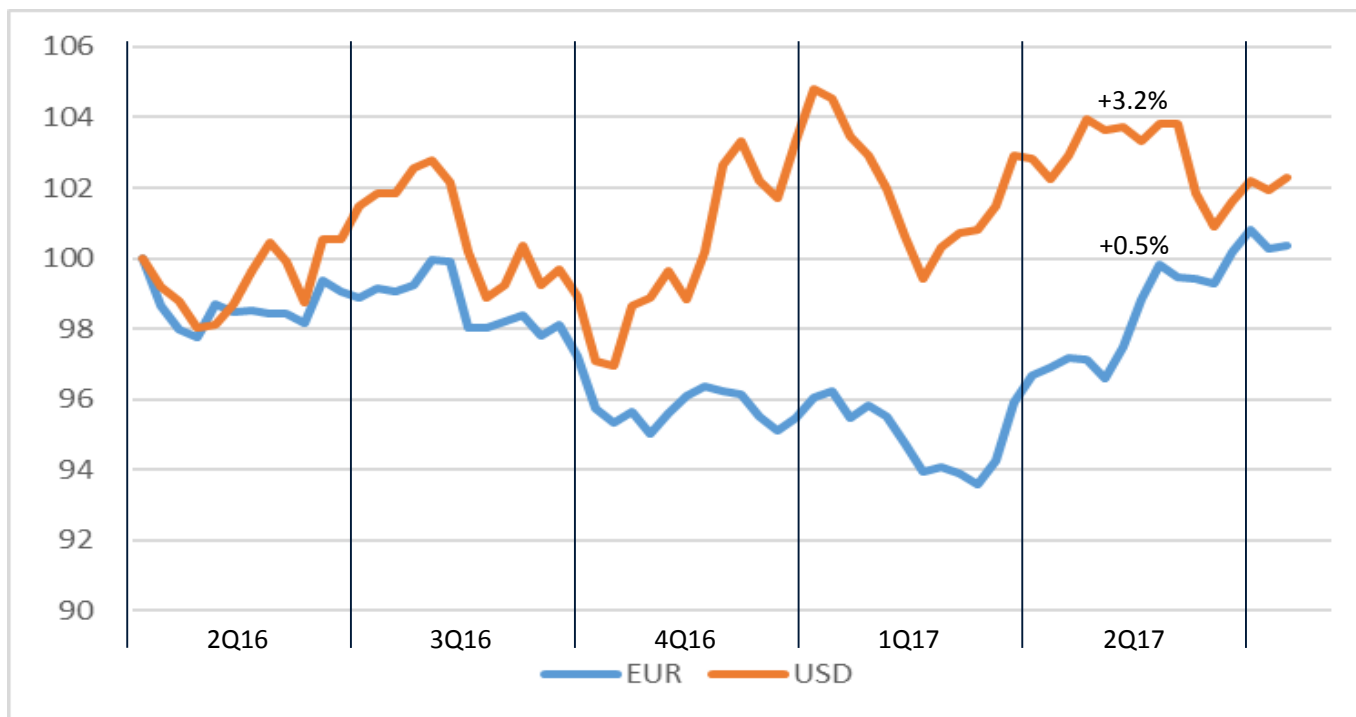- Min (2008-2016)
- Max (2008-2016)
- 2017
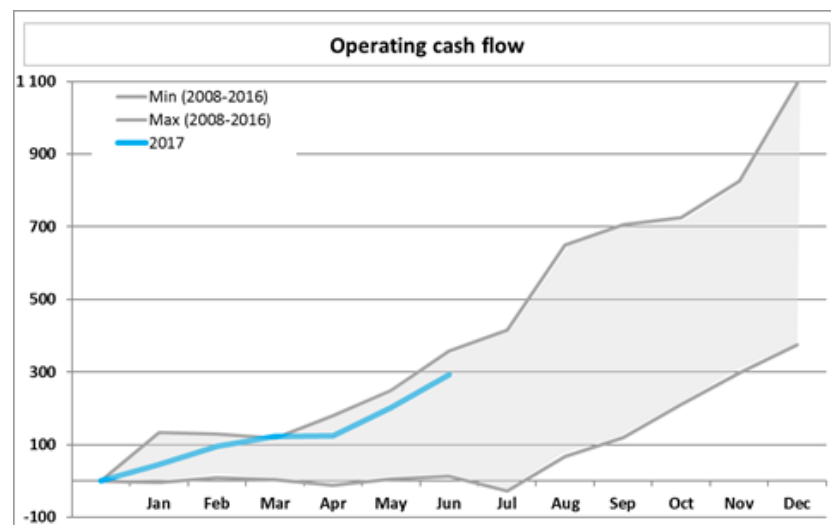
Ordinary cashflow from operations

• 170 MNOK (239 MNOK in 2Q 2016)

Solidity

• 52% equity

• NIBD/EBITDA = 0.7 (Rolling 12 months)

• Dividend of NOK 2.10 (NOK 1.75 last year) payed out 11 May 2017

TOMRA

CURRENCY

Limited impact from currencies in 2Q17 vs 2Q16

Revenues and expenses per currency;

NOTE: Rounded figures

	EUR*	USD	NOK	NZD	OTHER	TOTAL
Revenues	45 %	40 %	0 %	0 %	15 %	100 %
Expenses	45 %	30 %	5 %	5 %	15 %	100 %
EBITA	**45 %**	**90 %**	**- 25 %**	**- 25 %**	**15 %**	**100 %**

* EUR includes DKK

TOMRA

CURRENCY EXPOSURE

Revenues and expenses per currency;

NOTE: Rounded figures

	EUR*	USD	NOK	NZD	OTHER	TOTAL
Revenues	45 %	40 %	0 %	0 %	15 %	100 %
Expenses	45 %	30 %	5 %	5 %	15 %	100 %
EBITA	**45 %**	**90 %**	**- 25 %**	**- 25 %**	**15 %**	**100 %**

* EUR includes DKK

10% change in NOK towards other currencies will impact;

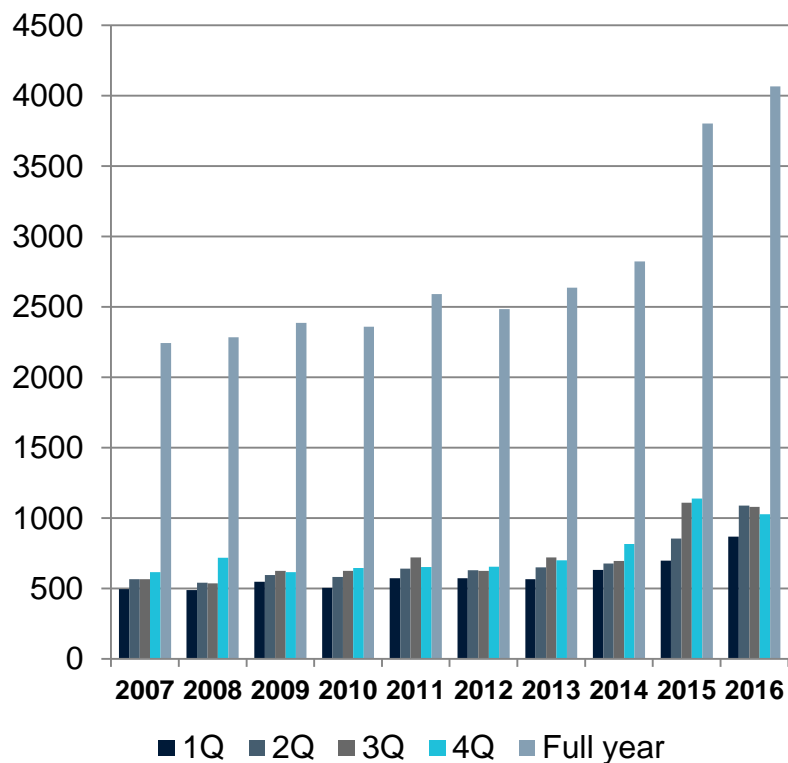|	Revenues	Expenses	EBITA
EUR*	4.5%	4.5%	4.5%
USD	4.0%	3.0%	9.0%
NZD	0.0%	0.5%	-2.5%
OTHER	1.5%	1.5%	1.5%
ALL	**10.0%**	**9.5%**	**12.5%**

* 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
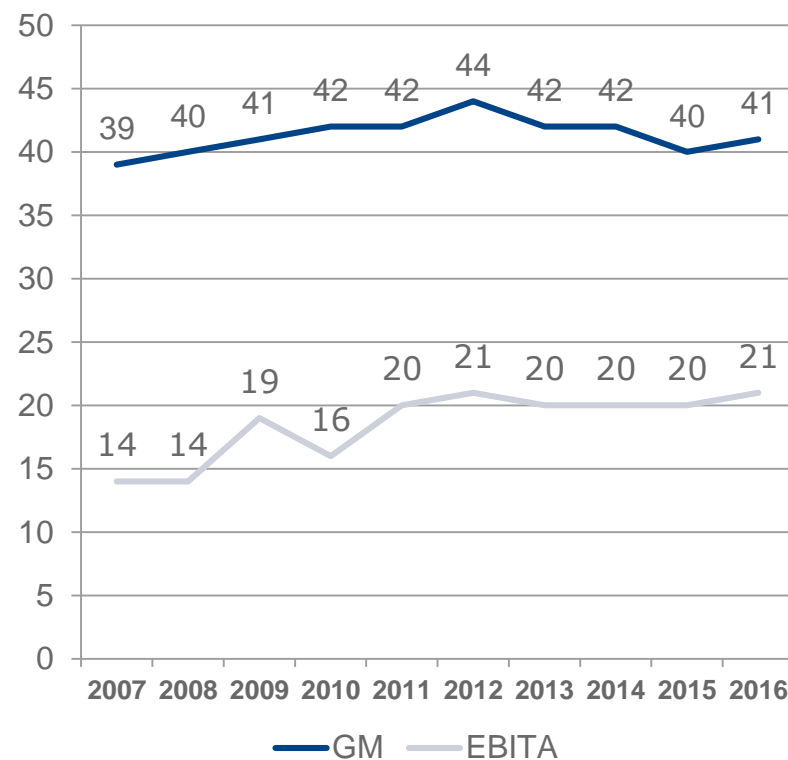
TOMRA

COLLECTION SOLUTIONS –
# SEGMENT FINANCIALS

Revenue development
NOK million

Legend: 1Q, 2Q, 3Q, 4Q, Full year

Gross and EBITA margin development
Percent

GM values: 39, 40, 41, 42, 42, 44, 42, 42, 40, 41
EBITA values: 14, 14, 19, 16, 20, 21, 20, 20, 20, 21

Legend: GM, EBITA

SORTING SOLUTIONS – SEGMENT FINANCIALS

Revenue development
NOK million

Legend: ■1Q ■2Q ■3Q ■4Q ■Full year

Gross and EBITA margin development
Percent

Legend: GM EBITA
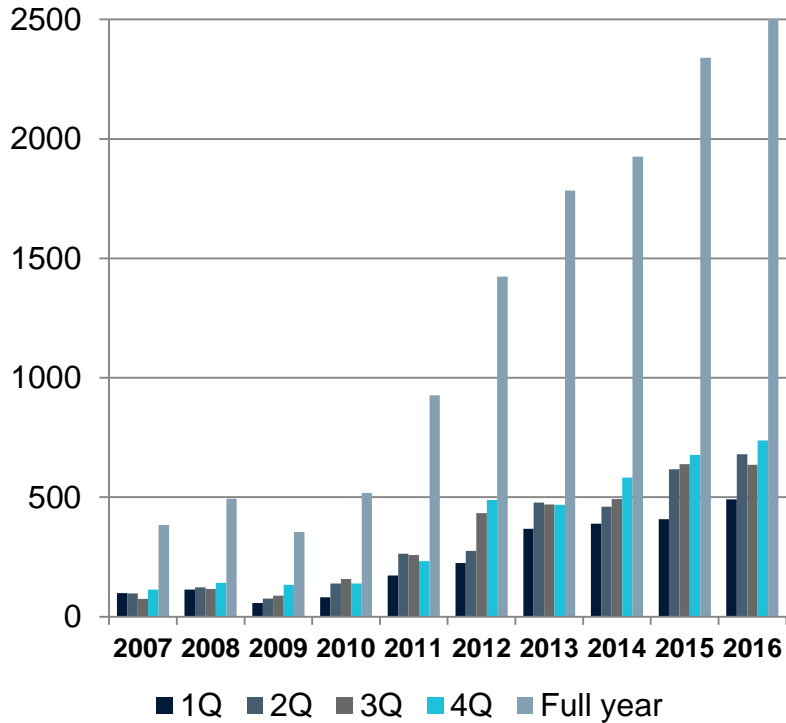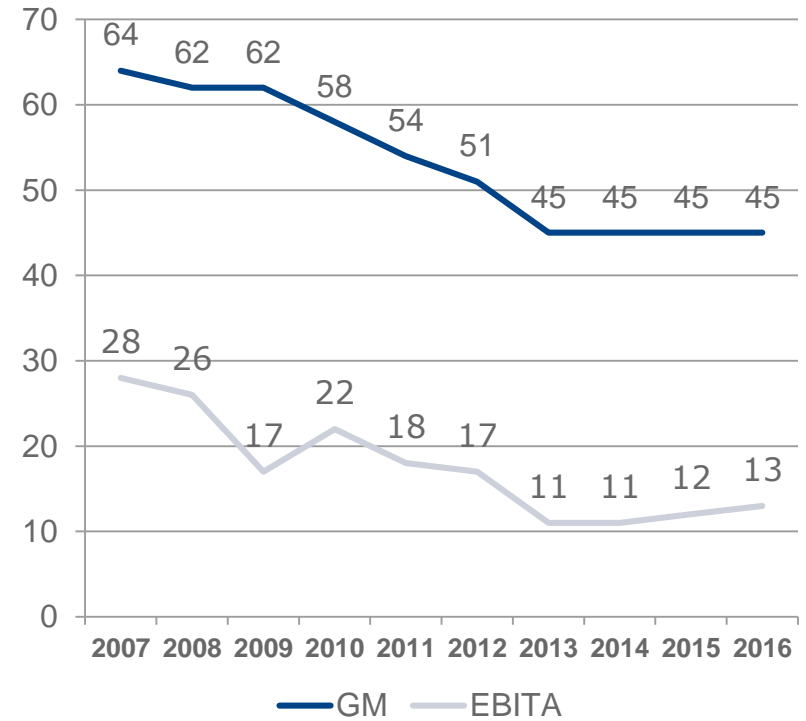
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TOMRA SHAREHOLDER STRUCTURE

Top 10 shareholders as of 30th of June 2017

1	Investment AB Latour	39 000 000	26.3%	
2	Folketrygdfondet	10 329 393	7.0%	
3	The Bank of New York BNYM, Stichting Dep	7 845 000	5.3%	(NOM)
4	Skandinaviska Enskilda A/C Clients account	4 330 635	2.9%	(NOM)
5	Goldman Sachs & Co	4 034 979	2.7%	
6	Clearstream Banking	2 736 612	1.8%	
7	ODIN Norge	2 280 188	1.5%	
8	Danske invest Norske C/O Danske Capital A	2 190 530	1.6%	(NOM)
9	Nordea Nordic Small	2 149 276	1.5%	
10	SEB Sverigefond SMAB	2 042 250	1.4%	
	Sum Top 10	**76 983 863**	**52.0%**	
	Other shareholders	**71 036 215**	**48.0%**	
	TOTAL (5,781 shareholders)	**148 020 078**	**100.0%**	

Source: VPS

Shareholders by country

- Sweden 37%
- Norway 26%
- USA 10%
- Great Britain 7%
- Netherlands 5%
- Luxembourg 3%
- Others 8%
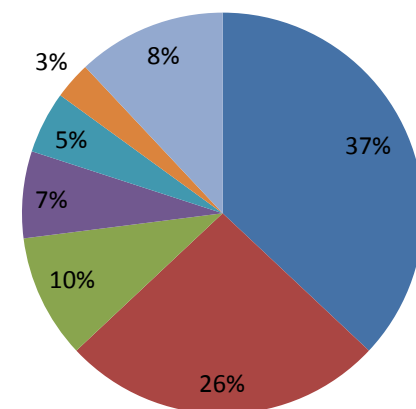
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