

# **Optical Sorter Market with COVID-19 Impact Analysis, by Type (Cameras, NIR, Lasers, Hyperspectral Cameras & Combined Sorters, Other types), Platform (Freefall, Belt, Lane, and Hybrid), Application and Geography - Global Forecast to 2027**

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## **Abstracts**

The optical sorter market is expected to grow from USD 2.6 billion in 2022 to USD 4.1 billion by 2027, at a CAGR of 9.9% during the forecast period. Increasing adoption in the food industry for food processing activities and for reducing process and delivery time is expected to drive the optical sorter market and to promote new revenue opportunities for optical sorter manufacturers. Owing to the growing demand for food products across the globe, the food industry is increasingly focusing on reducing process and delivery times.

Furthermore, increase in wages of the manual workforce in various countries is also expected to raise the demand for optical sorter systems. To counter this, many industries are focusing on reducing manual labor while increasing automation is expected to increase the adoption of optical sorters in various industries in the coming years.

“Market for belt platform for camera type optical sorters is expected to grow at higher CAGR during the forecast period”

The market for belt platform for camera type optical sorters is expected to grow at the fastest CAGR during the forecast period. Conveyor belt recycling sorting systems are ideal for sorting mixed, piece, or shredded materials. The material (e.g., PET bottles, electrical waste, scrap metal, and household waste) is optimally distributed to the detection area via a fast-moving conveyor belt (or configurable belt speeds).

Furthermore, the belt-type structure design provides a lower damage ratio for delicate food items. The materials are less likely to collide when transported horizontally by a uniform and stable conveyor. As a result, its damage ratio is significantly lower than that of a traditional chute-type color sorter.

“Market for hyperspectral cameras & combined sorters for food application is expected to account for the largest during the forecast period”

The market for hyperspectral cameras & combined sorters for food application is expected to account for the largest during the forecast period. It is further expected to grow at the fastest CAGR throughout the forecast period. HSI enables the detection of foreign objects in real-time, with pinpoint accuracy and dependability. Hyperspectral sensors are gradually being adopted by the food processing industry. When combined with machine learning algorithms, HSI sensors enable digital sorters to detect and remove foreign material automatically. The rapid and precise detection of HSI sensors detecting foreign objects in bulk food streams saves time and money. Objects found in food production lines include plastics, glass, wood, rubber, metal, stones, and other materials. All of these foreign materials can be easily detected using hyperspectral cameras and combined sensors.

“Vegetables & fruits sub-application is expected to dominate the optical sorter market for food application throughout the forecast period”

Vegetables & fruits sub-application is expected to dominate the optical sorter market for food application throughout the forecast period. According to Knoema data source, in 2020, the total Asian vegetable production was 990,043,085 tons whereas the total Asian fruit production was registered to be 568,539,336 tons. The vegetables & fruits production in Asia increased at a 2.08% annual rate in 2020. The vegetables & fruits production in Asia is further expected to increase with the increasing population in the next 5 to 6 years. Similarly, the vegetables & fruits import value in Europe in 2020 was USD 137.5 billion, and in Africa the vegetables & fruits export value was USD 16.6 billion in 2020. The rapid automation in APAC and African countries in the food industry is expected to propel the market for optical sorters for vegetables & fruits application in the foreseeable future.

“Optical sorter market in Asia Pacific region to register highest CAGR between 2022 and 2027”

The optical sorter market in Asia Pacific is expected to grow at the highest CAGR during

the forecast period. Increasing investments in automation by food, recycling, and mining companies, especially in China, South Korea, and India, are expected to be the key driver for the rapid market growth in Asia Pacific. Hence, with automation, the growing demand from food, recycling, and mining industries in Asia Pacific is expected to drive the optical sorter market during the forecast period. China is recovering rapidly from the manufacturing slowdown due to the COVID-19 pandemic, and South Korea, India, and Thailand are pushing for further automation. Asia Pacific's high CAGR is due to developing countries like India and the Philippines, which have high GDP rates and attract investments in food, recycling, and mining industries from various countries. The Asia Pacific region shows the highest potential for revenue generation in the optical market during the forecast period, and this is mainly due to the recent advancements in optical sorting machines by Asian companies such as Hefei Meyer Optoelectronic Technology (China), Hefei Taihe Intelligent Technology Group (China), Angelon (China), and DAEWON GSI (South Korea). Due to the growing deployment of optical sorting solutions, the Asia Pacific region is catching up with the North American and European regions in terms of market growth.

#### Breakdown of primaries

In the process of determining and verifying the market size for several segments and subsegments gathered through secondary research, extensive primary interviews have been conducted with key industry experts in the optical sorter market space. The break-up of primary participants for the report has been shown below:

By Company Type: Tier 1 – 40%, Tier 2 – 30%, and Tier 3 – 30%

By Designation: C-level Executives – 40%, Directors – 40%, and Others – 20%

By Region: Americas –35%, APAC– 35%, Europe – 20%, and RoW – 10%

The report profiles key players in the optical sorter market with their respective market ranking analysis. Prominent players profiled in this report are TOMRA (Norway), Böhler (Switzerland), Hefei Meyer Optoelectronic Technology (China), Satake (Japan), Allgaier Werke (Germany), Key Technology (US), Binder+Co (Austria), Hefei Taihe Intelligent Technology Group (China), STEINERT (Germany), AWETA (Netherlands), Pellenc ST (France), Techik Instrument (China), Unitec (Italy), Sesotec (Germany), National Recovery Technologies (US), CP Global (US), Machinex (Canada), MAF RODA AGROBOTIC (France), NEWTEC (Denmark), Raytec Vision (Italy), Cimbria (Denmark),

Daewon GSI (South Korea), Angelon (China), REDWAVE (Austria), and Elica ASM s.r.l. (Italy).

#### Research Coverage:

The report describes the detailed information regarding the major factors such as drivers, restraints, challenges, and opportunities influencing the growth of the optical sorter market. It also includes technology trends, trade data, and patent analysis. This research report categorizes the optical sorter market based on type, connectivity, application, end user, and region. A detailed analysis of the key industry players was carried out to provide insights into their business overviews; solutions and services offered; key strategies adopted that include new product launches, deals (partnerships and collaborations), and others (expansions), and COVID-19 impact on optical sorter market.

#### Key Benefits of Buying the Report

The report would help leaders/new entrants in this market in the following ways:

1. This report segments the optical sorter market comprehensively and provides the closest market size projection for all subsegments across different regions.
2. The report helps stakeholders understand the pulse of the market and provides them with information on key drivers, restraints, challenges, and opportunities for market growth.
3. This report would help stakeholders understand their competitors better and gain more insights to improve their position in the business. The competitive landscape section includes competitor ecosystem, product developments and launches, partnerships, and mergers and acquisitions.
4. The analysis of the top 25 companies, based on market share/rank as well as the product footprint will help stakeholders visualize the market positioning of these key players.
5. Patent analysis, trade data, and technological trends that will shape the market in the coming years has also been covered in this report.

## Contents

### 1 INTRODUCTION

#### 1.1 STUDY OBJECTIVES

#### 1.2 MARKET DEFINITION

##### 1.2.1 INCLUSIONS AND EXCLUSIONS

#### 1.3 STUDY SCOPE

##### 1.3.1 MARKETS COVERED

#### FIGURE 1 OPTICAL SORTER MARKET: SEGMENTATION

##### 1.3.2 GEOGRAPHIC SCOPE

##### 1.3.3 YEARS CONSIDERED

#### 1.4 CURRENCY

#### 1.5 LIMITATIONS

#### 1.6 STAKEHOLDERS

#### 1.7 SUMMARY OF CHANGES

### 2 RESEARCH METHODOLOGY

#### 2.1 RESEARCH DATA

#### FIGURE 2 OPTICAL SORTER MARKET: RESEARCH DESIGN

##### 2.1.1 SECONDARY DATA AND PRIMARY RESEARCH

#### FIGURE 3 OPTICAL SORTER MARKET: RESEARCH APPROACH

##### 2.1.2 SECONDARY DATA

###### 2.1.2.1 Major secondary sources

###### 2.1.2.2 Key data from secondary sources

##### 2.1.3 PRIMARY DATA

###### 2.1.3.1 Primary interviews with experts

###### 2.1.3.2 Primary sources

###### 2.1.3.3 Key industry insights

###### 2.1.3.4 Breakdown of primary interviews

#### 2.2 MARKET SIZE ESTIMATION

##### 2.2.1 BOTTOM-UP APPROACH

2.2.1.1 Approach to arrive at market size using bottom-up analysis  
(demand side)

#### FIGURE 4 BOTTOM-UP APPROACH

##### 2.2.2 TOP-DOWN APPROACH

2.2.2.1 Approach to arrive at market size using bottom-up analysis  
(supply side)

FIGURE 5 TOP-DOWN APPROACH

FIGURE 6 MARKET SIZE ESTIMATION METHODOLOGY: (DEMAND SIDE) —  
REVENUE GENERATED BY COMPANIES IN OPTICAL SORTER MARKET

2.3 DATA TRIANGULATION

FIGURE 7 OPTICAL SORTER MARKET: DATA TRIANGULATION

2.4 ASSUMPTIONS

2.5 LIMITATIONS

2.6 RISK ASSESSMENT

### **3 EXECUTIVE SUMMARY**

3.1 IMPACT OF COVID-19 ON OPTICAL SORTER MARKET

FIGURE 8 OPTICAL SORTER MARKET: REALISTIC, PESSIMISTIC, AND  
OPTIMISTIC RECOVERY SCENARIO

TABLE 1 COVID-19 IMPACT: REALISTIC SCENARIO

TABLE 2 COVID-19 IMPACT: OPTIMISTIC SCENARIO

TABLE 3 COVID-19 IMPACT: PESSIMISTIC SCENARIO

FIGURE 9 CAMERA TYPE TO HOLD LARGEST SHARE OF OPTICAL SORTER  
MARKET DURING FORECAST PERIOD

FIGURE 10 OPTICAL SORTER MARKET FOR BELT PLATFORM TO REGISTER  
HIGHEST CAGR DURING FORECAST PERIOD

FIGURE 11 OPTICAL SORTER MARKET FOR FOOD APPLICATION TO GROW AT  
HIGHEST CAGR BETWEEN 2022 AND 2027

FIGURE 12 NORTH AMERICA ACCOUNTED FOR LARGEST SHARE OF OPTICAL  
SORTER MARKET IN 2021

### **4 PREMIUM INSIGHTS**

4.1 ATTRACTIVE OPPORTUNITIES IN OPTICAL SORTER MARKET

FIGURE 13 GROWING FOCUS ON AUTOMATION TO INCREASE PRODUCTIVITY  
IN VARIOUS INDUSTRIES HAS FUELED MARKET GROWTH

4.2 OPTICAL SORTER MARKET, BY PLATFORM

FIGURE 14 BELT PLATFORM ESTIMATED TO HOLD LARGEST SHARE OF  
OPTICAL SORTER MARKET DURING FORECAST PERIOD

4.3 OPTICAL SORTER MARKET IN NORTH AMERICA, BY APPLICATION AND  
COUNTRY

FIGURE 15 FOOD APPLICATION AND US ARE ESTIMATED TO ACCOUNT FOR  
LARGER SHARE OF NORTH AMERICAN OPTICAL SORTER MARKET IN 2021

4.4 OPTICAL SORTER MARKET, BY APPLICATION

FIGURE 16 OPTICAL SORTER MARKET FOR FOOD APPLICATION TO GROW AT HIGHEST CAGR DURING FORECAST PERIOD

4.5 OPTICAL SORTER MARKET, BY KEY COUNTRIES

FIGURE 17 US IS EXPECTED TO DOMINATE OPTICAL SORTER MARKET DURING FORECAST PERIOD

## **5 MARKET OVERVIEW**

### **5.1 INTRODUCTION**

### **5.2 MARKET DYNAMICS**

FIGURE 18 OPTICAL SORTER MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES

#### **5.2.1 DRIVERS**

FIGURE 19 IMPACT OF DRIVERS ON OPTICAL SORTER MARKET

5.2.1.1 Growing focus on automation for increasing productivity in various industries

5.2.1.2 Increasing adoption in the food industry for food processing activities and for reducing process and delivery time

FIGURE 20 PATENTS FOR OPTICAL SORTERS FOR FOOD BETWEEN 2011 AND 2020

5.2.1.3 Increase in wages of the manual workforce in various countries

FIGURE 21 AVERAGE ANNUAL WAGES IN CHINA BETWEEN 2010 2020

FIGURE 22 AVERAGE ANNUAL WAGES IN EUROPE, 2015 & 2020

5.2.1.4 Stringent government regulations regarding food safety

#### **5.2.2 RESTRAINTS**

FIGURE 23 IMPACT OF RESTRAINTS ON OPTICAL SORTER MARKET

5.2.2.1 Requirement of high initial capital investment for implementation of sorting machines

5.2.2.2 Detection errors in optical sorting machines

#### **5.2.3 OPPORTUNITIES**

FIGURE 24 IMPACT OF OPPORTUNITIES ON THE OPTICAL SORTER MARKET

5.2.3.1 Advancements in detection technologies and ease of operation

5.2.3.2 Recycling initiatives at global scale to create scope for optical sorters

FIGURE 25 PATENTS FOR OPTICAL SORTERS FOR RECYCLING BETWEEN 2011 AND 2020

5.2.3.3 Integration of optical sorting systems with internet of things (IoT) and artificial intelligence (AI)

#### **5.2.4 CHALLENGES**

FIGURE 26 IMPACT OF CHALLENGES ON OPTICAL SORTER MARKET

5.2.4.1 Difficulties in sorting plastic waste



5.2.4.2 Challenges associated with various industries due to the outbreak of COVID-19 pandemic

### 5.3 VALUE CHAIN ANALYSIS

FIGURE 27 VALUE CHAIN ANALYSIS OF OPTICAL SORTERS ECOSYSTEM: MANUFACTURING, ASSEMBLY, AND SYSTEM INTEGRATION PHASES CONTRIBUTE MOST VALUE

5.3.1 PLANNING AND REVISING FUNDS

5.3.2 RESEARCH AND DEVELOPMENT

5.3.3 MANUFACTURING AND ASSEMBLY & SYSTEM INTEGRATION

5.3.4 DISTRIBUTION AND AFTER-SALES SERVICES

### 5.4 ECOSYSTEM

FIGURE 28 OPTICAL SORTERS ECOSYSTEM

TABLE 4 LIST OF COMPANIES AND THEIR ROLE IN OPTICAL SORTERS ECOSYSTEM

### 5.5 TRENDS IMPACTING CUSTOMERS' BUSINESS

FIGURE 29 REVENUE SHIFT IN OPTICAL SORTER MARKET

### 5.6 PORTER'S FIVE FORCES ANALYSIS

FIGURE 30 PORTER'S FIVE FORCES ANALYSIS

TABLE 5 OPTICAL SORTER MARKET: PORTER'S FIVE FORCES ANALYSIS

5.6.1 THREAT OF NEW ENTRANTS

5.6.2 THREAT OF SUBSTITUTES

5.6.3 BARGAINING POWER OF BUYERS

5.6.4 BARGAINING POWER OF SUPPLIERS

5.6.5 INTENSITY OF COMPETITIVE RIVALRY

### 5.7 CASE STUDIES

#### 5.7.1 FOOD

5.7.1.1 The Chilean company Vitafoods opted for the TOMRA 5B optical sorters to optimize its sorting process for frozen raspberries

5.7.1.2 The DA Multivision optical sorter from Böhler (Switzerland) increases Kijani Hai's (Tanzania) annual savings for coffee co-op by 20%

5.7.1.3 Antarctic Foods (France) uses Key Technology's (US) Veryx digital sorters to improve production efficiency and vegetable product quality

#### 5.7.2 RECYCLING

5.7.2.1 30TPH Cal-Waste (US) facility in Galt, California deploys primary sorting screens and optical sorters by CP Global (US) for producing high-quality recyclables with increased processing capacity of 173%

#### 5.7.3 MINING

5.7.3.1 Tomra optical sorting machines for minerals (Quartz) are increasing quality and lowering costs for Mikroman (Turkey)



## 5.8 TECHNOLOGY TRENDS

### 5.8.1 KEY TECHNOLOGY

5.8.1.1 Advent of numerous patented sorting technologies owing to their benefits and features

TABLE 6 SORTING TECHNOLOGY FOR FOOD APPLICATION

TABLE 7 SORTING TECHNOLOGY FOR RECYCLING APPLICATION

TABLE 8 SORTING TECHNOLOGY FOR MINING APPLICATION

TABLE 9 MISCELLANEOUS TECHNOLOGIES (TECHNOLOGIES THAT DIRECTLY ASSIST IN OPTICAL SORTING OF MATERIALS)

5.8.1.2 Advancements in smart imaging sensors and powerful image processors make them increasingly appealing for optical sorting machines

### 5.8.2 COMPLEMENTARY TECHNOLOGY

5.8.2.1 Growing advancement in AI, IIoT, deep learning, and big data analytics  
FIGURE 31 PATENTS FOR OPTICAL SORTER AI SOFTWARE BETWEEN 2010 AND 2020

### 5.8.3 ADJACENT TECHNOLOGY

5.8.3.1 Advent of optical sorting robot technology  
TABLE 10 RECENT DEVELOPMENTS IN OPTICAL SORTING ROBOTICS

## 5.9 AVERAGE SELLING PRICE

TABLE 11 AVERAGE SELLING PRICE OF OPTICAL SORTER, BY APPLICATION (USD)

## 5.10 TRADE ANALYSIS

### 5.10.1 IMPORT SCENARIO

5.10.1.1 Import scenario for optical sorter market  
FIGURE 32 IMPORT DATA FOR MACHINES FOR CLEANING, SORTING, OR GRADING SEEDS, GRAINS, OR DRY LEGUMES (INCLUDING OPTICAL SORTERS FOR FOOD APPLICATION) IN MARKET FOR TOP FIVE COUNTRIES, 2016–2020 (USD MILLION)

### 5.10.2 EXPORT SCENARIO

5.10.2.1 Export scenario for optical sorter market  
FIGURE 33 EXPORT DATA FOR MACHINES FOR CLEANING, SORTING OR GRADING SEEDS, GRAINS OR DRY LEGUMES (INCLUDING OPTICAL SORTERS FOR FOOD APPLICATION) IN MARKET FOR TOP FIVE COUNTRIES, 2016–2020 (USD MILLION)

## 5.11 PATENT ANALYSIS

TABLE 12 TOP 10 PATENT OWNERS IN LAST 10 YEARS (2011–2021)

TABLE 13 PATENTS FILED FOR VARIOUS TYPES OF OPTICAL SORTERS, 2021-2018

FIGURE 34 OPTICAL SORTER PATENTS GRANTED BETWEEN 2011 AND 2020

## FIGURE 35 TOP 10 COMPANIES WITH LARGEST NUMBER OF PATENT APPLICATIONS, 2011–2021

### 5.12 TARIFFS AND REGULATIONS

#### 5.12.1 TARIFFS

TABLE 14 CHINA: MFN TARIFFS FOR MACHINES FOR CLEANING, SORTING, OR GRADING SEEDS, GRAINS, OR DRY LEGUMES (INCLUDING OPTICAL SORTERS FOR FOOD APPLICATION), BY KEY COUNTRY

TABLE 15 UK: MFN TARIFFS FOR MACHINES FOR CLEANING, SORTING, OR GRADING SEEDS, GRAINS, OR DRY LEGUMES (INCLUDING OPTICAL SORTERS FOR FOOD APPLICATION), BY KEY COUNTRY

5.12.1.1 Positive impact of tariffs on optical sorters ecosystem

5.12.1.2 Negative impact of tariffs on optical sorters ecosystem

#### 5.12.2 REGULATIONS AND STANDARDS

### FIGURE 36 VARIOUS STANDARDS FOR OPTICAL SORTERS

#### 5.12.2.1 ISO Standards

##### 5.12.2.1.1 ISO 9001

##### 5.12.2.1.2 ISO 45001:2018

##### 5.12.2.1.3 ISO 14001

#### 5.12.2.2 ATEX (Atmosphere Explosible) certification

#### 5.12.2.3 Food Safety Regulations and Standards Across Various Regions

##### 5.12.2.3.1 US

##### 5.12.2.3.2 Europe

##### 5.12.2.3.3 APAC

## 6 OFFERINGS IN OPTICAL SORTER MARKET AND CLASSIFICATION

### BY END USERS

#### 6.1 INTRODUCTION

#### 6.2 OFFERINGS

### FIGURE 37 OPTICAL SORTER MARKET: OFFERINGS

#### 6.2.1 HARDWARE

### FIGURE 38 COMPONENTS OF AN OPTICAL SORTER

#### 6.2.1.1 Feed System

#### 6.2.1.2 Optical System

#### 6.2.1.3 Image Processing Unit

#### 6.2.1.4 Separation System

#### 6.2.2 SOFTWARE & SERVICES

##### 6.2.2.1 Software

##### 6.2.2.2 Services

6.2.2.2.1 Pre-Sales Services

6.2.2.2.2 Installation Services

6.2.2.2.3 Maintenance and After-Sale Services

## 6.3 CLASSIFICATION BASED ON SCALE OF END USERS

### FIGURE 39 OPTICAL SORTER MARKET: SCALE OF END-USER

6.3.1 LARGE ENTERPRISES

6.3.2 SMALL AND MEDIUM-SIZED ENTERPRISES (SMES)

## 7 OPTICAL SORTER MARKET, BY TYPE

### 7.1 INTRODUCTION

FIGURE 40 OPTICAL SORTER MARKET, BY TYPE

FIGURE 41 CAMERA-BASED SORTERS TO DOMINATE OPTICAL SORTER MARKET DURING FORECAST PERIOD

TABLE 16 OPTICAL SORTER MARKET SIZE, BY TYPE, 2018–2021 (USD MILLION)

TABLE 17 OPTICAL SORTER MARKET SIZE, BY TYPE, 2022–2027 (USD MILLION)

### 7.2 CAMERAS

7.2.1 CAMERA TYPE OPTICAL SORTERS ARE USED TO SORT THE OBJECTS BASED ON COLOR, SIZE, SHAPE, STRUCTURAL PROPERTY, AND CHEMICAL COMPOSITION

TABLE 18 PLAYERS OFFERING CAMERA TYPE OPTICAL SORTERS

TABLE 19 CAMERA TYPE OPTICAL SORTER MARKET SIZE, BY PLATFORM, 2018–2021 (USD MILLION)

FIGURE 42 FREEFALL PLATFORM TO DOMINATE CAMERA TYPE OPTICAL SORTER MARKET DURING FORECAST PERIOD

TABLE 20 CAMERA TYPE OPTICAL SORTER MARKET SIZE, BY PLATFORM, 2022–2027 (USD MILLION)

TABLE 21 CAMERA TYPE OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2018–2021 (USD MILLION)

TABLE 22 CAMERA TYPE OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2022–2027 (USD MILLION)

### 7.3 LASERS

7.3.1 LASER OPTICAL SORTERS INVESTIGATE MATERIAL'S STRUCTURAL PROPERTIES AND DIFFERENCES IN COLOR

TABLE 23 PLAYERS OFFERING LASER TYPE OPTICAL SORTERS

TABLE 24 LASER TYPE OPTICAL SORTER MARKET SIZE, BY PLATFORM, 2018–2021 (USD MILLION)

TABLE 25 LASER TYPE OPTICAL SORTER MARKET SIZE, BY PLATFORM, 2022–2027 (USD MILLION)

TABLE 26 LASER TYPE OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2018–2021 (USD MILLION)

FIGURE 43 FOOD APPLICATION TO DOMINATE LASER TYPE OPTICAL SORTER MARKET DURING FORECAST PERIOD

TABLE 27 LASER TYPE OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2022–2027 (USD MILLION)

#### 7.4 NIR SORTERS

7.4.1 NIR OPTICAL SORTERS ARE BEST-SUITED FOR RECYCLING APPLICATION AND CAN AID IN THE CONVERSION OF PLASTIC WASTE INTO A RENEWABLE RESOURCE, THEREBY REDUCING WASTE AND POLLUTION

TABLE 28 PLAYERS OFFERING NIR TYPE OPTICAL SORTERS

TABLE 29 NIR TYPE OPTICAL SORTER MARKET SIZE, BY PLATFORM, 2018–2021 (USD MILLION)

TABLE 30 NIR TYPE OPTICAL SORTER MARKET SIZE, BY PLATFORM, 2022–2027 (USD MILLION)

TABLE 31 NIR TYPE OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2018–2021 (USD MILLION)

FIGURE 44 NIR TYPE OPTICAL SORTER MARKET FOR RECYCLING APPLICATION TO GROW AT FASTEST RATE DURING FORECAST PERIOD

TABLE 32 NIR TYPE OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2022–2027 (USD MILLION)

#### 7.5 HYPERSPECTRAL CAMERAS & COMBINED SORTERS

7.5.1 HYPERSPECTRAL CAMERAS & COMBINED SORTERS ARE USED TO SORT FOOD BASED ON QUALITY, AND TO IDENTIFY ANOMALIES LIKE FOOD MOLDS

TABLE 33 PLAYERS OFFERING HYPERSPECTRAL CAMERAS & COMBINED SORTERS TYPE OPTICAL SORTERS

TABLE 34 HYPERSPECTRAL CAMERAS & COMBINED SORTERS TYPE OPTICAL SORTER MARKET SIZE, BY PLATFORM, 2018–2021 (USD MILLION)

TABLE 35 HYPERSPECTRAL CAMERAS & COMBINED SORTERS TYPE OPTICAL SORTER MARKET SIZE, BY PLATFORM, 2022–2027 (USD MILLION)

TABLE 36 HYPERSPECTRAL CAMERAS & COMBINED SORTERS TYPE OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2018–2021 (USD MILLION)

FIGURE 45 FOOD APPLICATION TO DOMINATE THE HYPERSPECTRAL CAMERAS & COMBINED SORTERS TYPE OPTICAL SORTER MARKET DURING FORECAST PERIOD

TABLE 37 HYPERSPECTRAL CAMERAS & COMBINED SORTERS TYPE OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2022–2027 (USD MILLION)

#### 7.6 OTHERS

TABLE 38 PLAYERS OFFERING OTHER TYPES OF OPTICAL SORTERS

TABLE 39 OTHER TYPES OPTICAL SORTER MARKET SIZE, BY PLATFORM, 2018–2021 (USD MILLION)

FIGURE 46 BELT PLATFORM TO DOMINATE THE OTHER TYPES OPTICAL SORTER MARKET DURING FORECAST PERIOD

TABLE 40 OTHER TYPES OPTICAL SORTER MARKET SIZE, BY PLATFORM, 2022–2027 (USD MILLION)

TABLE 41 OTHER TYPES OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2018–2021 (USD MILLION)

TABLE 42 OTHER TYPES OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2022–2027 (USD MILLION)

## **8 OPTICAL SORTER MARKET, BY PLATFORM**

### **8.1 INTRODUCTION**

FIGURE 47 OPTICAL SORTER MARKET, BY PLATFORM

FIGURE 48 BELT PLATFORM TO LEAD OPTICAL SORTER MARKET DURING FORECAST PERIOD

TABLE 43 OPTICAL SORTER MARKET SIZE, BY PLATFORM, 2018–2021 (USD MILLION)

TABLE 44 OPTICAL SORTER MARKET SIZE, BY PLATFORM, 2022–2027 (USD MILLION)

### **8.2 BELT**

8.2.1 BELT PLATFORM-BASED OPTICAL SORTER HELPS TO STABILIZE THE PRODUCT AND IMPROVE THE PREDICTABILITY OF THE TRAJECTORY OF THE PRODUCT

TABLE 45 PLAYERS OFFERING OPTICAL SORTERS WITH BELT PLATFORM

TABLE 46 OPTICAL SORTER MARKET SIZE FOR BELT PLATFORM, BY TYPE, 2018–2021 (USD MILLION)

TABLE 47 OPTICAL SORTER MARKET SIZE FOR BELT PLATFORM, BY TYPE, 2022–2027 (USD MILLION)

TABLE 48 OPTICAL SORTER MARKET SIZE FOR BELT PLATFORM, BY APPLICATION, 2018–2021 (USD MILLION)

TABLE 49 OPTICAL SORTER MARKET SIZE FOR BELT PLATFORM, BY APPLICATION, 2022–2027 (USD MILLION)

### **8.3 FREEFALL**

8.3.1 FREEFALL PLATFORM OPTICAL SORTERS ARE BEST-SUITED FOR FROZEN AND DRIED FOOD APPLICATION

TABLE 50 PLAYERS OFFERING OPTICAL SORTERS WITH FREEFALL PLATFORM

TABLE 51 OPTICAL SORTER MARKET SIZE FOR FREEFALL PLATFORM, BY

TYPE, 2018–2021 (USD MILLION)

TABLE 52 OPTICAL SORTER MARKET SIZE FOR FREEFALL PLATFORM, BY TYPE, 2022–2027 (USD MILLION)

TABLE 53 OPTICAL SORTER MARKET SIZE FOR FREEFALL PLATFORM, BY APPLICATION, 2018–2021 (USD MILLION)

TABLE 54 OPTICAL SORTER MARKET SIZE FOR FREEFALL PLATFORM, BY APPLICATION, 2022–2027 (USD MILLION)

#### 8.4 LANE

8.4.1 SORTING OF FRUITS & VEGETABLES BASED ON INTERNAL AND EXTERNAL QUALITY INSPECTION TO DRIVE THE MARKET FOR OPTICAL SORTERS WITH LANE PLATFORM

TABLE 55 PLAYERS OFFERING OPTICAL SORTERS WITH LANE PLATFORM

TABLE 56 OPTICAL SORTER MARKET SIZE FOR LANE PLATFORM, BY TYPE, 2018–2021 (USD MILLION)

TABLE 57 OPTICAL SORTER MARKET SIZE FOR LANE PLATFORM, BY TYPE, 2022–2027 (USD MILLION)

TABLE 58 OPTICAL SORTER MARKET SIZE FOR LANE PLATFORM, BY APPLICATION, 2018–2021 (USD MILLION)

TABLE 59 OPTICAL SORTER MARKET SIZE FOR LANE PLATFORM, BY APPLICATION, 2022–2027 (USD MILLION)

#### 8.5 HYBRID

8.5.1 OPTICAL SORTERS WITH A MODULAR PLATFORM OF CHUTE-FED AND BELT-FED SORTERS ARE DESIGNED TO MEET THE UNIQUE AND SPECIFIC NEEDS IN VARIOUS APPLICATIONS

TABLE 60 PLAYERS OFFERING OPTICAL SORTERS WITH HYBRID PLATFORM

TABLE 61 OPTICAL SORTER MARKET SIZE FOR HYBRID PLATFORM, BY TYPE, 2018–2021 (USD MILLION)

TABLE 62 OPTICAL SORTER MARKET SIZE FOR HYBRID PLATFORM, BY TYPE, 2022–2027 (USD MILLION)

TABLE 63 OPTICAL SORTER MARKET SIZE FOR HYBRID PLATFORM, BY APPLICATION, 2018–2021 (USD MILLION)

TABLE 64 OPTICAL SORTER MARKET SIZE FOR HYBRID PLATFORM, BY APPLICATION, 2022–2027 (USD MILLION)

## 9 OPTICAL SORTER MARKET, BY APPLICATION

### 9.1 INTRODUCTION

FIGURE 49 OPTICAL SORTER MARKET, BY APPLICATION

FIGURE 50 FOOD APPLICATION TO DOMINATE OPTICAL SORTER MARKET



## DURING FORECAST PERIOD

TABLE 65 OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2018–2021 (USD MILLION)

TABLE 66 OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2022–2027 (USD MILLION)

## 9.2 FOOD

TABLE 67 PLAYERS OFFERING OPTICAL SORTERS IN FOOD APPLICATION

FIGURE 51 CAMERA TYPE TO DOMINATE THE OPTICAL SORTER MARKET FOR FOOD APPLICATION DURING FORECAST PERIOD

TABLE 68 OPTICAL SORTER MARKET SIZE FOR FOOD APPLICATION, BY TYPE, 2018–2021 (USD MILLION)

TABLE 69 OPTICAL SORTER MARKET SIZE FOR FOOD APPLICATION, BY TYPE, 2022–2027 (USD MILLION)

TABLE 70 OPTICAL SORTER MARKET SIZE FOR FOOD APPLICATION, BY PLATFORM, 2018–2021 (USD MILLION)

TABLE 71 OPTICAL SORTER MARKET SIZE FOR FOOD APPLICATION, BY PLATFORM, 2022–2027 (USD MILLION)

TABLE 72 OPTICAL SORTER MARKET SIZE FOR FOOD APPLICATION, BY REGION, 2018–2021 (USD MILLION)

TABLE 73 OPTICAL SORTER MARKET SIZE FOR FOOD APPLICATION, BY REGION, 2022–2027 (USD MILLION)

TABLE 74 OPTICAL SORTER MARKET SIZE FOR FOOD APPLICATION, BY SUB-APPLICATION, 2018–2021 (USD MILLION)

TABLE 75 OPTICAL SORTER MARKET SIZE FOR FOOD APPLICATION, BY SUB-APPLICATION, 2022–2027 (USD MILLION)

### 9.2.1 VEGETABLES & FRUITS

9.2.1.1 Optical sorters for vegetables & fruits application offer high accuracy for maximum efficiency, high production capacity, and flexibility to clients

### 9.2.2 DRIED FRUITS & NUTS

9.2.2.1 Optical sorters reduce the levels of foreign materials and rotten items in dried fruits & nuts

### 9.2.3 MEAT & SEAFOOD

9.2.3.1 Optical sorters offer contamination-free sorting of fresh or frozen meat & seafood of various sizes and types

### 9.2.4 GRAINS, CEREALS, AND PULSES

9.2.4.1 Removal of a wide range of defects in grains, cereals, and pulses drive the demand for optical sorters

## 9.3 RECYCLING

TABLE 76 PLAYERS OFFERING OPTICAL SORTERS IN RECYCLING APPLICATION

FIGURE 52 NIR TYPE OPTICAL SORTER MARKET FOR RECYCLING APPLICATION TO GROW AT HIGHEST CAGR DURING FORECAST PERIOD

TABLE 77 OPTICAL SORTER MARKET SIZE FOR RECYCLING APPLICATION, BY TYPE, 2018–2021 (USD MILLION)

TABLE 78 OPTICAL SORTER MARKET SIZE FOR RECYCLING APPLICATION, BY TYPE, 2022–2027 (USD MILLION)

TABLE 79 OPTICAL SORTER MARKET SIZE FOR RECYCLING APPLICATION, BY PLATFORM, 2018–2021 (USD MILLION)

TABLE 80 OPTICAL SORTER MARKET SIZE FOR RECYCLING APPLICATION, BY PLATFORM, 2022–2027 (USD MILLION)

TABLE 81 OPTICAL SORTER MARKET SIZE FOR RECYCLING APPLICATION, BY REGION, 2018–2021 (USD MILLION)

TABLE 82 OPTICAL SORTER MARKET SIZE FOR RECYCLING APPLICATION, BY REGION, 2022–2027 (USD MILLION)

TABLE 83 OPTICAL SORTER MARKET SIZE FOR RECYCLING APPLICATION, BY SUB-APPLICATION, 2018–2021 (USD MILLION)

TABLE 84 OPTICAL SORTER MARKET SIZE FOR RECYCLING APPLICATION, BY SUB-APPLICATION, 2022–2027 (USD MILLION)

#### 9.3.1 PLASTIC

9.3.1.1 Optical sorters are used for sorting and quality assurance of plastic polymers on the basis of unique NIR spectral fingerprints

#### 9.3.2 PAPER

9.3.2.1 Optical sorters are used to sort wastepaper based on lignin content, stiffness, gloss, and color of the paper

#### 9.3.3 ORGANIC WASTE

9.3.3.1 Optical sorter market for organic waste is driven by increasing demand for sorting inert materials, papers, organic materials, and polymers from the organic waste

#### 9.3.4 CONSTRUCTION & DEMOLITION (C&D)

9.3.4.1 Removal of bulky, heavy materials in construction & demolition waste drive the optical sorter market for C&D application

#### 9.3.5 E-SCRAP

9.3.5.1 Optical sorters are used in E-scrap recycling for separating individual parts from unusable elements in order to refine them to manufacture other products

#### 9.3.6 METAL

9.3.6.1 Growing demand for separation of ferrous and non-ferrous metals will drive the demand for optical sorters for metal recycling application

#### 9.3.7 GLASS

9.3.7.1 Optical sorters are designed to keep glass loss to a minimum by maintaining a uniform and evenly distributed material flow during sorting

## 9.4 MINING

TABLE 85 PLAYERS OFFERING OPTICAL SORTERS IN MINING APPLICATION  
FIGURE 53 CAMERA TYPE TO LEAD OPTICAL SORTER MARKET FOR MINING APPLICATION DURING FORECAST PERIOD

TABLE 86 OPTICAL SORTER MARKET SIZE FOR MINING APPLICATION, BY TYPE, 2018–2021 (USD MILLION)

TABLE 87 OPTICAL SORTER MARKET SIZE FOR MINING APPLICATION, BY TYPE, 2022–2027 (USD MILLION)

TABLE 88 OPTICAL SORTER MARKET SIZE FOR MINING APPLICATION, BY PLATFORM, 2018–2021 (USD MILLION)

TABLE 89 OPTICAL SORTER MARKET SIZE FOR MINING APPLICATION, BY PLATFORM, 2022–2027 (USD MILLION)

TABLE 90 OPTICAL SORTER MARKET SIZE FOR MINING APPLICATION, BY REGION, 2018–2021 (USD MILLION)

TABLE 91 OPTICAL SORTER MARKET SIZE FOR MINING APPLICATION, BY REGION, 2022–2027 (USD MILLION)

TABLE 92 OPTICAL SORTER MARKET FOR MINING APPLICATION, BY SUB-APPLICATION, 2018–2021 (USD MILLION)

TABLE 93 OPTICAL SORTER MARKET FOR MINING APPLICATION, BY SUB-APPLICATION, 2022–2027 (USD MILLION)

### 9.4.1 INDUSTRIAL MINERALS

9.4.1.1 HSI camera system has higher spectral and positional resolution that can recognize impure minerals and remove them from industrial minerals

### 9.4.2 PRECIOUS METALS

9.4.2.1 Optical sorters provide effective removal of contaminants from precious metals that impede the flotation and leaching processes, thus speeds up recovery and revenue

### 9.4.3 OTHERS

## 10 GEOGRAPHIC ANALYSIS

### 10.1 INTRODUCTION

FIGURE 54 OPTICAL SORTER MARKET IN CHINA TO REGISTER HIGHEST CAGR FROM 2022 TO 2027

FIGURE 55 NORTH AMERICA TO DOMINATE THE OPTICAL SORTER MARKET DURING FORECAST PERIOD

TABLE 94 OPTICAL SORTER MARKET SIZE, BY REGION, 2018–2021 (USD MILLION)

TABLE 95 OPTICAL SORTER MARKET SIZE, BY REGION, 2022–2027 (USD

MILLION)

## 10.2 NORTH AMERICA

FIGURE 56 NORTH AMERICA: OPTICAL SORTER MARKET SNAPSHOT

TABLE 96 NORTH AMERICA: OPTICAL SORTER MARKET SIZE, BY COUNTRY, 2018–2021 (USD MILLION)

TABLE 97 NORTH AMERICA: OPTICAL SORTER MARKET SIZE, BY COUNTRY, 2022–2027 (USD MILLION)

TABLE 98 NORTH AMERICA: OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2018–2021 (USD MILLION)

TABLE 99 NORTH AMERICA: OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2022–2027 (USD MILLION)

### 10.2.1 US

10.2.1.1 Increasing food processing, recycling, and mining activities in the US drive the growth of the optical sorter market

### 10.2.2 CANADA

10.2.2.1 Agricultural products and meat industry to boost the demand for optical sorters in Canada

### 10.2.3 MEXICO

10.2.3.1 Expanding economy and increasingly market-oriented agricultural sector to drive the optical sorter market in Mexico

## 10.3 EUROPE

FIGURE 57 EUROPE: OPTICAL SORTER MARKET SNAPSHOT

TABLE 100 EUROPE: OPTICAL SORTER MARKET SIZE, BY COUNTRY, 2018–2021 (USD MILLION)

TABLE 101 EUROPE: OPTICAL SORTER MARKET SIZE, BY COUNTRY, 2022–2027 (USD MILLION)

TABLE 102 EUROPE: OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2018–2021 (USD MILLION)

TABLE 103 EUROPE: OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2022–2027 (USD MILLION)

### 10.3.1 GERMANY

10.3.1.1 The initiatives of recycling waste products and mineral sorting to drive the optical sorter market in the country

### 10.3.2 UK

10.3.2.1 Growth in the glass recycling market will lead to the adoption of optical sorters in the UK

### 10.3.3 FRANCE

10.3.3.1 Rapid adoption of automation to boost the demand for optical sorters in France

#### 10.3.4 REST OF EUROPE

#### 10.4 ASIA PACIFIC

##### FIGURE 58 ASIA PACIFIC: OPTICAL SORTER MARKET SNAPSHOT

TABLE 104 ASIA PACIFIC: OPTICAL SORTER MARKET SIZE, BY COUNTRY, 2018–2021 (USD MILLION)

TABLE 105 ASIA PACIFIC: OPTICAL SORTER MARKET SIZE, BY COUNTRY, 2022–2027 (USD MILLION)

TABLE 106 ASIA PACIFIC: OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2018–2021 (USD MILLION)

TABLE 107 ASIA PACIFIC: OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2022–2027 (USD MILLION)

##### 10.4.1 CHINA

10.4.1.1 Strict emission laws & environmental regulations and government focus on food safety to drive the growth of the optical sorter market in China

##### 10.4.2 JAPAN

10.4.2.1 Agricultural production and leading waste management system in the country to drive the market for optical sorters

##### 10.4.3 SOUTH KOREA

10.4.3.1 Adoption of food packaging by recycled material will enhance the growth opportunities for optical sorter market in South Korea

##### 10.4.4 REST OF ASIA PACIFIC

#### 10.5 REST OF WORLD

##### FIGURE 59 REST OF WORLD: OPTICAL SORTER MARKET SNAPSHOT

TABLE 108 REST OF WORLD: OPTICAL SORTER MARKET SIZE, BY REGION, 2018–2021 (USD MILLION)

TABLE 109 REST OF WORLD: OPTICAL SORTER MARKET SIZE, BY REGION, 2022–2027 (USD MILLION)

TABLE 110 REST OF WORLD: OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2018–2021 (USD MILLION)

TABLE 111 REST OF WORLD: OPTICAL SORTER MARKET SIZE, BY APPLICATION, 2022–2027 (USD MILLION)

##### 10.5.1 SOUTH AMERICA

10.5.1.1 The richness in raw materials, food products, and growth of mining industries to drive the demand for optical sorters in South America

##### 10.5.2 MIDDLE EAST

10.5.2.1 Middle East accounts for the largest share of the optical sorter market in Rest of World

TABLE 112 MIDDLE EAST: OPTICAL SORTER MARKET SIZE, BY COUNTRY, 2018–2021 (USD MILLION)

**TABLE 113 MIDDLE EAST: OPTICAL SORTER MARKET SIZE, BY COUNTRY, 2022–2027 (USD MILLION)****10.5.2.2 Saudi Arabia**

10.5.2.2.1 Country's rich industrial mineral market to enhance the opportunities for optical sorters in Saudi Arabia

**10.5.2.3 UAE**

10.5.2.3.1 The waste recycling industry to drive the growth of optical sorter market in the UAE

**10.5.2.4 Rest OF Middle East**

10.5.2.4.1 Middle East countries investing in waste management and recycling to drive the growth of the optical sorter market

**10.5.3 AFRICA**

10.5.3.1 Rapid automation initiatives in the region to drive the market for optical sorters in Africa

**11 COMPETITIVE LANDSCAPE****11.1 OVERVIEW****11.2 KEY PLAYER STRATEGIES/RIGHT TO WIN****TABLE 114 OVERVIEW OF STRATEGIES DEPLOYED BY OPTICAL SORTER COMPANIES****11.2.1 PRODUCT PORTFOLIO****11.2.2 REGIONAL FOCUS****11.2.3 MANUFACTURING FOOTPRINT****11.2.4 ORGANIC/INORGANIC PLAY****11.3 TOP COMPANY REVENUE ANALYSIS****FIGURE 60 TOTAL OPTICAL SORTER MARKET: REVENUE ANALYSIS OF TOP PLAYERS, 2017- 2021****11.4 MARKET SHARE ANALYSIS, 2021****TABLE 115 MARKET SHARE ANALYSIS, OPTICAL SORTER MARKET (2021)****11.5 COMPANY EVALUATION QUADRANT, 2021****11.5.1 STAR****11.5.2 EMERGING LEADER****11.5.3 PERVASIVE****11.5.4 PARTICIPANT****FIGURE 61 OPTICAL SORTER MARKET: COMPANY EVALUATION QUADRANT, 2021****11.6 STARTUP/SME EVALUATION QUADRANT, 2021****11.6.1 PROGRESSIVE COMPANIES**



#### 11.6.2 RESPONSIVE COMPANIES

#### 11.6.3 DYNAMIC COMPANIES

#### 11.6.4 STARTING BLOCKS

FIGURE 62 OPTICAL SORTER MARKET, STARTUP/SME EVALUATION  
QUADRANT, 2021

#### 11.7 OPTICAL SORTER MARKET: COMPANY FOOTPRINT (25 COMPANIES)

TABLE 116 COMPANY FOOTPRINT

TABLE 117 COMPANY TYPE FOOTPRINT (25 COMPANIES)

TABLE 118 COMPANY APPLICATION FOOTPRINT (25 COMPANIES)

TABLE 119 COMPANY REGION FOOTPRINT (25 COMPANIES)

TABLE 120 OPTICAL SORTER MARKET: DETAILED LIST OF KEYS  
STARTUPS/SMES

(14 COMPANIES)

TABLE 121 OPTICAL SORTER MARKET: COMPETITIVE BENCHMARKING OF KEY  
STARTUPS/SMES (14 COMPANIES)

#### 11.8 COMPETITIVE SITUATIONS AND TRENDS

##### 11.8.1 PRODUCT LAUNCHES

TABLE 122 PRODUCT LAUNCHES, JUNE 2021–OCTOBER 2021

##### 11.8.2 DEALS

TABLE 123 DEALS, APRIL 2021–DECEMBER 2021

##### 11.8.3 OTHERS

TABLE 124 EXPANSIONS, FEBRUARY 2020 - DECEMBER 2021

## 12 COMPANY PROFILES

(Business overview, Products/Solutions offered, Recent developments, MNM view)\*

### 12.1 KEY PLAYERS

#### 12.1.1 TOMRA

TABLE 125 TOMRA: BUSINESS OVERVIEW

FIGURE 63 TOMRA: COMPANY SNAPSHOT

#### 12.1.2 B?HLER

TABLE 126 B?HLER: BUSINESS OVERVIEW

FIGURE 64 B?HLER: COMPANY SNAPSHOT

#### 12.1.3 HEFEI MEYER OPTOELECTRONIC TECHNOLOGY

TABLE 127 HEFEI MEYER OPTOELECTRONIC TECHNOLOGY: BUSINESS  
OVERVIEW

#### 12.1.4 SATAKE

TABLE 128 SATAKE: BUSINESS OVERVIEW

#### 12.1.5 ALLGAIER WERKE

TABLE 129 ALLGAIER WERKE: BUSINESS OVERVIEW

12.1.6 HEFEI TAIHE INTELLIGENT TECHNOLOGY GROUP

TABLE 130 HEFEI TAIHE INTELLIGENT TECHNOLOGY GROUP: BUSINESS OVERVIEW

12.1.7 KEY TECHNOLOGY

TABLE 131 KEY TECHNOLOGY: BUSINESS OVERVIEW

12.1.8 UNITEC

TABLE 132 UNITEC: BUSINESS OVERVIEW

12.1.9 AWETA

TABLE 133 AWETA: BUSINESS OVERVIEW

12.1.10 MACHINEX

TABLE 134 MACHINEX: BUSINESS OVERVIEW

12.1.11 PELLENC ST

TABLE 135 PELLENC ST: BUSINESS OVERVIEW

12.2 OTHER PLAYERS

12.2.1 BINDER+CO

12.2.2 SESOTEC

12.2.3 NATIONAL RECOVERY TECHNOLOGIES (NRT)

12.2.4 RAYTEC VISION

12.2.5 STEINERT

12.2.6 ANGELON

12.2.7 MAF RODA AGROBOTIC

12.2.8 NEWTEC

12.2.9 CIMBRIA

12.2.10 DAEWON GSI

12.2.11 CP GLOBAL

12.2.12 REDWAVE

12.2.13 ELICA ASM

12.2.14 TECHIK INSTRUMENT

\*Details on Business overview, Products/Solutions offered, Recent developments, MNM view might not be captured in case of unlisted companies.

## **13 ADJACENT AND RELATED MARKET**

13.1 AUTOMATED OPTICAL INSPECTION MARKET

13.2 INTRODUCTION

FIGURE 65 AOI SYSTEM MARKET, BY TYPE

TABLE 136 AOI SYSTEM MARKET, IN TERMS OF VALUE AND VOLUME, 2017–2026

FIGURE 66 3D AOI SYSTEMS TO BE DOMINANT AND GROW FASTER DURING

## FORECAST PERIOD

TABLE 137 AOI SYSTEM MARKET, BY TYPE, 2017–2020 (USD MILLION)

TABLE 138 AOI SYSTEM MARKET, BY TYPE, 2021–2026 (USD MILLION)

### 13.3 3D AOI SYSTEMS

13.3.1 ABILITY TO INSPECT COPLANARITY OF COMPONENTS AND PROVIDE  
VOLUMETRIC MEASUREMENT DATA TO DRIVE DEMAND

#### 13.3.2 METHODOLOGIES OF 3D AOI INSPECTION

13.3.2.1 Laser measurement

13.3.2.2 Multi-frequency moiré phase shift image processing

FIGURE 67 FUNCTIONAL DIAGRAM: 3D AOI SYSTEM

TABLE 139 3D AOI SYSTEM ADVANTAGES VS. DISADVANTAGES

TABLE 140 3D AOI SYSTEM MARKET, BY TECHNOLOGY, 2017–2020 (USD  
MILLION)

TABLE 141 3D AOI SYSTEM MARKET, BY TECHNOLOGY, 2021–2026 (USD  
MILLION)

TABLE 142 3D AOI SYSTEM MARKET, BY INDUSTRY, 2017–2020 (USD MILLION)

TABLE 143 3D AOI SYSTEM MARKET, BY INDUSTRY, 2021–2026 (USD MILLION)

TABLE 144 3D AOI SYSTEM MARKET, BY REGION, 2017–2020 (USD MILLION)

TABLE 145 3D AOI SYSTEM MARKET, BY REGION, 2021–2026 (USD MILLION)

### 13.4 2D AOI SYSTEMS

13.4.1 HIGHER RATE OF FALSE CALLS WILL LEAD TO SHRINKING DEMAND

FIGURE 68 FUNCTIONAL DIAGRAM: 2D AOI SYSTEM

TABLE 146 2D AOI SYSTEM ADVANTAGES VS. DISADVANTAGES

TABLE 147 2D AOI SYSTEM MARKET, BY TECHNOLOGY, 2017–2020 (USD  
MILLION)

TABLE 148 2D AOI SYSTEM MARKET, BY TECHNOLOGY, 2021–2026 (USD  
MILLION)

TABLE 149 2D AOI SYSTEM MARKET, BY INDUSTRY, 2017–2020 (USD MILLION)

TABLE 150 2D AOI SYSTEM MARKET, BY INDUSTRY, 2021–2026 (USD MILLION)

TABLE 151 2D AOI SYSTEM MARKET, BY REGION, 2017–2020 (USD MILLION)

TABLE 152 2D AOI SYSTEM MARKET, BY REGION, 2021–2026 (USD MILLION)

## 14 APPENDIX

14.1 INSIGHTS OF INDUSTRY EXPERTS

14.2 DISCUSSION GUIDE

14.3 KNOWLEDGE STORE: MARKETSANDMARKETS' SUBSCRIPTION PORTAL

14.4 AVAILABLE CUSTOMIZATIONS

14.5 RELATED REPORTS

## 14.6 AUTHOR DETAILS

## About

According to the market research report "Optical Sorter Market by Type (Camera, Laser, NIR Sorter, and Hyperspectral Camera & Combined Sorters), Platform (Belt, Freefall, Lane, and Hybrid), Application (Food, Recycling, and Mining), and Geography - Global Forecast to 2023", the optical sorter market, the overall market is estimated to be worth USD 1.63 Billion in 2017 and is expected to reach USD 2.87 Billion by 2023, at a CAGR of 9.8% between 2017 and 2023. The increasing need to reduce process and delivery time in the food industry and rising labor costs are the major drivers for the optical sorter market growth.

### Major players in the optical sorter market are

TOMRA (Norway)

Buhler (Switzerland)

Key Technology (US)

Binder (Austria)

Satake (US)

Allgaier Werke (Germany)

Cimbria (Denmark)

CP Manufacturing (US)

GREEFA (Netherlands)

NEWTEC (Denmark)

National Recovery Technologies (US)

Pellenc ST (France)

Raytec Vision (Italy)

Sesotec (Germany)

STEINERT (Germany)

### **Camera-based optical sorters are expected to hold a major share during the forecast period**

Camera-based optical sorters led the optical sorter market in 2016. These sorters are more accurate and can detect minute defects in products; therefore, these optical sorters are widely used in food applications to sort vegetables and fruits; dried fruits and nuts; and cereals, grains, and pulses. With technological advancements (Automation), many companies are now providing camera-based optical sorting equipment integrated with intelligent software. These technologically advanced products are more effective in detecting defective products, which improves the overall product quality and increases yield.

### **Belt platform-based optical sorters are expected to grow at the highest CAGR between 2017 and 2023**

Belt platform-based optical sorters are used in various applications, such as food, recycling, and mining. Belt sorting equipment has high-performance capabilities for fresh, frozen, and dried vegetables; fruits; processed potato products; and nuts. Belt platform-based optical sorters identify small foreign materials and defects and improve the accuracy of the ejection system, which helps in maximizing the sorter's yield and defect removal performance.

### **North America is expected to hold a major share of the optical sorter market between 2017 and 2023**

North America is expected to hold the largest share of the optical sorter market during the forecast period. The US is expected to be the major contributor to the market in North America between 2017 and 2023. This is due to the high demand for optical sorters in the food industry. Automated sorting is an important technology for many food-processing operations. The US has been an early adopter of the automation technology as a means of improving productivity and ensuring time and cost savings. In addition, consumer demands for healthier options and convenience have also affected the food industry and driven the use of automation, which in turn has aided the adoption of



optical sorting equipment.

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