

Human Machine Interface Market by Offering (Basic, Advanced Panel-based, & Advanced PC-based HMI), Software (On-premises, Cloud-based), Screen Size (1-9, 9-17, More than 17), Configuration (Standalone, Embedded), Industry - Global Forecast to 2028

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Abstracts

The HMI market is estimated to be worth USD 5.2 billion in 2023 and is projected to reach USD 7.7 billion by 2028 at a CAGR of 8.2% during the forecast period. The HMI market is experiencing robust growth, primarily driven by surging adoption of industry 4.0 in manufacturing industries and government initiatives that are promoting adoption of operational technologies. Industry 4.0 emphasizes smart factories and interconnected systems that rely on advanced HMI solutions to facilitate real-time monitoring, data analysis, and efficient control of machinery and production processes. Additionally, government initiatives aimed at promoting the adoption of operational technologies in manufacturing sectors have further accelerated the HMI market's growth. These initiatives often include incentives and funding to encourage the implementation of advanced HMI systems, aligning with broader efforts to enhance productivity, product quality, and competitiveness in the global market.

“Discrete industries to hold the largest share of HMI market in 2022.”

Discrete industries such as automobile, semiconductor & electronics, and aerospace require precise control, rapid changeovers, and advanced customization, making them particularly reliant on adaptable and user-friendly HMI solutions. The fast-paced nature of discrete manufacturing necessitates cutting-edge HMI technologies that offer real-time data visualization, intuitive interfaces, and seamless integration with other automation systems. These features enhance operational efficiency, maintain product quality, and ensure that these industries can meet the dynamic consumer demands for

innovative and high-quality products. As a result, the unique requirements and the competitive landscape of discrete manufacturing sectors make them the largest and essential consumers of HMI solutions, ultimately driving their prominence in the market.

“Oil & Gas industry to hold the largest share of HMI market for process industries in 2022.”

The oil and gas industry involves complex, high-risk processes, such as drilling, refining, and distribution, where precise monitoring and control are imperative for safety, efficiency, and compliance. HMI systems are essential in facilitating real-time data visualization, control, and decision-making in this challenging environment. Moreover, the sector is increasingly integrating automation and digitalization to optimize operations and reduce costs, driving the demand for advanced HMI solutions. With the adoption of IoT, data analytics, and remote monitoring, HMI technologies are crucial for achieving operational excellence in the oil and gas industry, making it a prominent player in the HMI market.

“North America to hold the largest market share of HMI market in 2022.”

North America is a major hub for technological innovations, as well as an early adopter of new technologies. These sectors rely heavily on advanced HMI solutions to improve operational efficiency and maintain a competitive edge. Moreover, North America has a mature and well-established infrastructure that readily adopts emerging technologies, including HMI systems, which are integral to Industry 4.0 initiatives and smart manufacturing. Additionally, the presence of leading HMI solution providers and a strong emphasis on research and development further drives the market's growth. The region has witnessed a marginal shift toward automated production and continuous R&D investments by manufacturers to drive innovation in their manufacturing processes. Moreover, the industrial, automotive, power, oil & gas, pharmaceutical, and healthcare sectors are integrating HMI with data analytics to improve performance and reduce overall operational costs, which is likely to further lead to the growth of the HMI market in North America.

The break-up of the profiles of primary participants:

By Company Type – Tier 1 – 65%, Tier 2 – 20%, and Tier 3 – 15%

By Designation – C-level Executives – 57%, Directors – 27%, and Others – 16%

By Region – North America - 24%, Europe – 24%, Asia Pacific – 46%, and Rest of the World – 6%

Major players in the HMI market are Rockwell Automation (US), Siemens (Germany), Schneider Electric (France), ABB (Switzerland), and Honeywell International Inc. (US).

Research Coverage

The report segments the HMI market by offering, configuration, end-user industry, and region. The report also comprehensively reviews drivers, restraints, opportunities, and challenges influencing market growth. The report also covers qualitative aspects in addition to the quantitative aspects of the market.

Reasons to buy the report:

The report will help the market leaders/new entrants with information on the closest approximate revenues for the overall HMI market and related segments. This report will help stakeholders understand the competitive landscape and gain more insights to strengthen their position in the market and plan suitable go-to-market strategies. The report also helps stakeholders understand the market pulse and provides information on key market drivers, restraints, opportunities, and challenges.

The report provides insights on the following pointers:

Analysis of key drivers (Rising adoption of industrial automation in process and discrete industries, Growing focus on real-time data analysis and predictive maintenance, Government initiatives to promote adoption of operational technologies, and Surging adoption of industry 4.0 in manufacturing industries is driving the market), restraints (High cost associated with installation and maintenance, Need for regular maintenance and frequent software updates, and Shortage of skilled and experienced workforce are hindering the growth of the market), opportunities (Surging demand for safety compliance automation systems in manufacturing industries, Increasing adoption of IIoT and cloud computing across industries, and Rapid growth and increasing investments in renewable energy sector), and challenges (Absence of standardization in industrial communication protocols and interfaces and Susceptibility of cloud-HMI systems to cyberattacks are resulting as a risk for HMI systems) influencing the growth of the HMI market.

Product Development/Innovation: Detailed insights on upcoming technologies, research and development activities, and new product launches in the HMI market.

Market Development: Comprehensive information about lucrative markets – the report analyses the HMI market across varied regions.

Market Diversification: Exhaustive information about new products, untapped geographies, recent developments, and investments in the HMI market.

Competitive Assessment: In-depth assessment of market shares, growth strategies, and product offerings of leading players like Rockwell Automation (US), Siemens (Germany), Schneider Electric (France), ABB (Switzerland), and Honeywell International Inc. (US).

Contents

1 INTRODUCTION

1.1 STUDY OBJECTIVES

1.2 MARKET DEFINITION

1.3 INCLUSIONS AND EXCLUSIONS

1.4 STUDY SCOPE

1.4.1 MARKETS COVERED

FIGURE 1 HUMAN MACHINE INTERFACE MARKET SEGMENTATION

1.4.2 REGIONAL SCOPE

1.4.3 YEARS CONSIDERED

1.4.4 CURRENCY CONSIDERED

1.5 STAKEHOLDERS

1.6 SUMMARY OF CHANGES

1.6.1 IMPACT OF RECESSION

2 RESEARCH METHODOLOGY

2.1 RESEARCH DATA

FIGURE 2 HUMAN MACHINE INTERFACE MARKET: RESEARCH DESIGN

2.1.1 SECONDARY DATA

2.1.1.1 List of major secondary sources

2.1.1.2 Key data from secondary sources

2.1.2 PRIMARY DATA

2.1.2.1 Breakdown of primaries

2.1.2.2 Primary interviews with experts

2.1.2.3 Key data from primary sources

2.1.3 SECONDARY AND PRIMARY RESEARCH

2.1.3.1 Key industry insights

2.2 MARKET SIZE ESTIMATION METHODOLOGY

FIGURE 3 HUMAN MACHINE INTERFACE MARKET: REVENUE GENERATED THROUGH SALES OF HMI SOLUTIONS

2.2.1 BOTTOM-UP APPROACH

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

FIGURE 4 HUMAN MACHINE INTERFACE MARKET: BOTTOM-UP APPROACH

2.2.2 TOP-DOWN APPROACH

2.2.2.1 Approach to arrive at market size using top-down analysis

(supply side)

FIGURE 5 HUMAN MACHINE INTERFACE MARKET: TOP-DOWN APPROACH

2.3 MARKET BREAKDOWN AND DATA TRIANGULATION

FIGURE 6 HUMAN MACHINE INTERFACE MARKET: DATA TRIANGULATION

2.4 RESEARCH ASSUMPTIONS

FIGURE 7 HUMAN MACHINE INTERFACE MARKET: RESEARCH ASSUMPTIONS

2.5 PARAMETERS CONSIDERED TO ANALYZE RECESSION IMPACT ON HUMAN MACHINE INTERFACE MARKET

2.6 RESEARCH LIMITATIONS

2.7 RISK ASSESSMENT

FIGURE 8 HUMAN MACHINE INTERFACE MARKET: RISK ASSESSMENT

3 EXECUTIVE SUMMARY

FIGURE 9 HUMAN MACHINE INTERFACE MARKET SIZE, 2019-2028 (USD MILLION)

FIGURE 10 SOFTWARE SEGMENT ACCOUNTED FOR LARGER MARKET SHARE IN 2022

FIGURE 11 EMBEDDED SEGMENT TO EXHIBIT HIGHER CAGR IN HUMAN MACHINE INTERFACE MARKET FROM 2023 TO 2028

FIGURE 12 OIL & GAS SEGMENT ACCOUNTED FOR LARGEST SHARE OF HUMAN MACHINE INTERFACE MARKET IN 2022

FIGURE 13 AUTOMOBILE SEGMENT TO EXHIBIT HIGHEST CAGR DURING FORECAST PERIOD

FIGURE 14 ASIA PACIFIC TO EXHIBIT HIGHEST CAGR IN HUMAN MACHINE INTERFACE MARKET DURING FORECAST PERIOD

4 PREMIUM INSIGHTS

4.1 ATTRACTIVE OPPORTUNITIES FOR PLAYERS IN HUMAN MACHINE INTERFACE MARKET

FIGURE 15 RISING ADOPTION OF INDUSTRIAL AUTOMATION SYSTEMS IN MANUFACTURING FACILITIES TO CREATE LUCRATIVE OPPORTUNITIES FOR PLAYERS IN HUMAN MACHINE INTERFACE MARKET

4.2 HUMAN MACHINE INTERFACE MARKET, BY END-USER INDUSTRY

FIGURE 16 PROCESS INDUSTRIES SEGMENT TO GROW AT HIGHER CAGR IN HUMAN MACHINE INTERFACE MARKET FROM 2023 TO 2028

4.3 HUMAN MACHINE INTERFACE MARKET, BY PROCESS INDUSTRY

FIGURE 17 OIL & GAS SEGMENT TO DOMINATE HUMAN MACHINE INTERFACE

MARKET DURING FORECAST PERIOD

4.4 HUMAN MACHINE INTERFACE MARKET, BY DISCRETE INDUSTRY

FIGURE 18 AUTOMOBILE SEGMENT TO HOLD LARGEST MARKET SHARE IN 2023

4.5 HUMAN MACHINE INTERFACE MARKET, BY COUNTRY

FIGURE 19 CHINA TO REGISTER HIGHEST CAGR IN HUMAN MACHINE INTERFACE MARKET FROM 2023 TO 2028

5 MARKET OVERVIEW

5.1 INTRODUCTION

5.2 MARKET DYNAMICS

FIGURE 20 HUMAN MACHINE INTERFACE MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES

5.2.1 DRIVERS

5.2.1.1 Increasing adoption of automation technologies to enhance productivity and efficiency in manufacturing

5.2.1.2 Rising focus on real-time data visualization and predictive maintenance of industrial machinery

5.2.1.3 Escalating investments in IIoT and 3D printing technologies to transform manufacturing chains

5.2.1.4 Surging demand for smart machines and rapid industrial revolution

FIGURE 21 HUMAN MACHINE INTERFACE MARKET: DRIVERS AND THEIR IMPACT

5.2.2 RESTRAINTS

5.2.2.1 High costs associated with installation and maintenance of HMI systems

5.2.2.2 Need for periodic maintenance and frequent HMI software updates

5.2.2.3 Shortage of skilled and experienced workforce

FIGURE 22 HUMAN MACHINE INTERFACE MARKET: RESTRAINTS AND THEIR IMPACT

5.2.3 OPPORTUNITIES

5.2.3.1 Heightened focus on workplace safety and regulatory compliance of automated systems

5.2.3.2 Increased adoption of IoT and cloud computing technologies

5.2.3.3 Need for advanced solutions to monitor ever-increasing renewable energy assets

FIGURE 23 HUMAN MACHINE INTERFACE MARKET: OPPORTUNITIES AND THEIR IMPACT

5.2.4 CHALLENGES

5.2.4.1 Lack of standardization of industrial communication protocols

5.2.4.2 Susceptibility of cloud-based HMI systems to cyberattacks

FIGURE 24 HUMAN MACHINE INTERFACE MARKET: CHALLENGES AND THEIR IMPACT

5.3 TRENDS/DISRUPTIONS IMPACTING CUSTOMERS' BUSINESSES

FIGURE 25 HUMAN MACHINE INTERFACE MARKET: TRENDS/DISRUPTIONS IMPACTING CUSTOMERS' BUSINESSES

5.4 PRICING ANALYSIS

5.4.1 AVERAGE SELLING PRICE TREND, BY SCREEN SIZE (USD THOUSAND)

FIGURE 26 AVERAGE SELLING PRICE TREND, BY SCREEN SIZE (USD THOUSAND)

TABLE 1 AVERAGE SELLING PRICE TREND, BY SCREEN SIZE (USD THOUSAND)

5.4.2 AVERAGE SELLING PRICE TREND, BY REGION (USD THOUSAND)

TABLE 2 AVERAGE SELLING PRICE TREND, BY REGION (USD THOUSAND)

FIGURE 27 HUMAN MACHINE INTERFACE MARKET: PRICING ANALYSIS OF BASIC HMI SOLUTIONS, 2019-2028

5.5 SUPPLY CHAIN ANALYSIS

FIGURE 28 HUMAN MACHINE INTERFACE MARKET: SUPPLY CHAIN ANALYSIS

5.6 MARKET/ECOSYSTEM MAP

FIGURE 29 HUMAN MACHINE INTERFACE MARKET: MARKET/ECOSYSTEM MAP

5.7 TECHNOLOGY ANALYSIS

5.7.1 SPATIAL COMPUTING

5.7.2 TRANSPARENT DISPLAYS

5.7.3 BIOACOUSTIC SENSING

5.7.4 MACHINE LEARNING

5.7.5 GESTURE CONTROL DEVICES

5.7.6 FLEXIBLE DISPLAYS

5.7.7 AUGMENTED REALITY

5.7.8 SENSOR FUSION

5.7.9 VIRTUAL REALITY

5.7.10 DIGITALIZATION AND INDUSTRIAL INTERNET OF THINGS (IIOT)

5.7.11 INDUSTRY 4.0

5.7.12 ARTIFICIAL INTELLIGENCE (AI)

5.7.13 INTERNET OF THINGS (IOT)

5.8 PATENT ANALYSIS

FIGURE 30 HUMAN MACHINE INTERFACE MARKET: TOP 10 COMPANIES WITH HIGHEST NUMBER OF PATENT APPLICATIONS, 2013-2022

FIGURE 31 HUMAN MACHINE INTERFACE MARKET: PATENTS GRANTED, 2013-2022

TABLE 3 HUMAN MACHINE INTERFACE MARKET: TOP 20 PATENT OWNERS,

2013–2022

TABLE 4 HUMAN MACHINE INTERFACE MARKET: LIST OF PATENTS RELATED TO HMI SOLUTIONS

5.9 TRADE ANALYSIS

5.9.1 IMPORT SCENARIO

FIGURE 32 HUMAN MACHINE INTERFACE MARKET: IMPORT DATA FOR HS CODE 853710-COMPLIANT HMI SOLUTIONS, BY KEY COUNTRY, 2018–2022 (USD MILLION)

5.9.2 EXPORT SCENARIO

FIGURE 33 HUMAN MACHINE INTERFACE MARKET: EXPORT DATA FOR HS CODE 853710-COMPLIANT HMI SOLUTIONS, BY KEY COUNTRY, 2018–2022 (USD MILLION)

5.10 KEY CONFERENCES AND EVENTS, 2023–2024

TABLE 5 HUMAN MACHINE INTERFACE MARKET: LIST OF CONFERENCES AND EVENTS, 2023–2024

5.11 CASE STUDY ANALYSIS

5.11.1 IMPLEMENTATION OF EMERSON ELECTRIC CO.'S SCADA SYSTEMS TO MONITOR AND CONTROL SHOPPING MALLS AND HYPERMARKETS IN ITALY

5.11.2 DEVELOPMENT OF LEMATIC'S AUTO INET SAAS SOLUTIONS TO IMPROVE ACCESS TO CRITICAL INFRASTRUCTURE

5.11.3 ADOPTION OF SCADA SYSTEMS BY ARB MIDSTREAM TO CREATE OPERATION CONTROL CENTER

5.12 TARIFFS AND REGULATORY LANDSCAPE

5.12.1 REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 6 NORTH AMERICA: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 7 EUROPE: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 8 ASIA PACIFIC: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 9 ROW: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

5.12.2 STANDARDS

5.12.2.1 IEC TS 62832-1:2020

5.12.2.2 ISO/IEC TR 63306-1:2020

5.12.2.3 ISO 55001:2014

5.12.2.4 Industrial safety standards

5.13 PORTER'S FIVE FORCES ANALYSIS

FIGURE 34 HUMAN MACHINE INTERFACE MARKET: PORTER'S FIVE FORCES ANALYSIS

TABLE 10 SMART MANUFACTURING MARKET: PORTER'S FIVE FORCES ANALYSIS

5.14 KEY STAKEHOLDERS AND BUYING CRITERIA

5.14.1 KEY STAKEHOLDERS IN BUYING PROCESS

FIGURE 35 INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR TOP 3 END-USER INDUSTRIES

TABLE 11 INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR TOP 3 END-USER INDUSTRIES (%)

5.14.2 BUYING CRITERIA

FIGURE 36 HUMAN MACHINE INTERFACE MARKET: KEY BUYING CRITERIA FOR TOP 3 END-USER INDUSTRIES

TABLE 12 HUMAN MACHINE INTERFACE MARKET: KEY BUYING CRITERIA FOR TOP 3 END-USER INDUSTRIES

6 TECHNOLOGIES DEPLOYED IN HMI DEVICES

6.1 INTRODUCTION

6.2 MOTION

6.3 BIONIC

6.4 TACTILE

6.5 ACOUSTIC

6.6 OPTICAL

7 TRENDS AND EMERGING APPLICATIONS OF HMI TECHNOLOGY

7.1 INTRODUCTION

7.2 TRENDS RELATED TO HMI TECHNOLOGY

7.2.1 INTEGRATION OF HMI WITH GESTURE AND VOICE RECOGNITION TECHNOLOGY

7.2.2 INTEGRATION OF HMI WITH AUGMENTED REALITY (AR) AND VIRTUAL REALITY (VR) TECHNOLOGIES

7.2.3 INTEGRATION OF HMI WITH ARTIFICIAL INTELLIGENCE (AI) TECHNOLOGY

7.2.4 INTEGRATION OF HMI WITH EDGE COMPUTING TECHNOLOGY

7.3 EMERGING APPLICATIONS OF HMI TECHNOLOGY

7.3.1 AUTOMOTIVE

7.3.2 HEALTHCARE

7.3.3 ENTERTAINMENT AND GAMING

7.3.4 RETAIL AND TRANSPORTATION

7.3.5 INDUSTRIAL AUTOMATION

8 COMPONENTS OF HMI SOLUTIONS

8.1 INTRODUCTION

8.2 DISPLAY TERMINALS

8.2.1 CAPACITIVE TOUCHSCREENS

8.2.2 NEAR-FIELD IMAGING TOUCHSCREENS

8.2.3 INFRARED AND DISPERSIVE SIGNAL TOUCHSCREENS

8.2.4 RESISTIVE TOUCHSCREENS

8.3 SOFTWARE

8.4 INDUSTRIAL PERSONAL COMPUTERS (PCS)

8.4.1 PROCESSORS

8.4.2 INPUT/OUTPUT DEVICES

8.4.3 STORAGE DEVICES

8.5 MEMBRANE SWITCHES

8.6 RUBBER KEYPADS

8.7 REMOTE PANELS

9 SCREEN SIZE-BASED CLASSIFICATION OF HMI SYSTEMS

9.1 INTRODUCTION

FIGURE 37 HUMAN MACHINE INTERFACE MARKET: SCREEN SIZE-BASED CLASSIFICATION OF HMI SOLUTIONS

9.2 BETWEEN 1 TO 9"

9.3 BETWEEN 9 TO 17"

9.4 MORE THAN 17"

10 SALES CHANNELS OF HMI SOLUTIONS

10.1 INTRODUCTION

FIGURE 38 HUMAN MACHINE INTERFACE MARKET: SALES CHANNELS OF HMI SOLUTIONS

10.2 DIRECT

10.2.1 HIGH PREFERENCE FOR PERSONALIZATION OF HMI PRODUCT BUYING EXPERIENCES TO AUGMENT MARKET GROWTH

10.3 INDIRECT

10.3.1 INCREASED SALES OF HMI PRODUCTS THROUGH E-COMMERCE

PLATFORMS TO BOOST SEGMENTAL GROWTH

11 HUMAN MACHINE INTERFACE MARKET, BY OFFERING

11.1 INTRODUCTION

FIGURE 39 HUMAN MACHINE INTERFACE MARKET, BY OFFERING

TABLE 13 HUMAN MACHINE INTERFACE MARKET, BY OFFERING, 2019–2022
(USD MILLION)

TABLE 14 HUMAN MACHINE INTERFACE MARKET, BY OFFERING, 2023–2028
(USD MILLION)

FIGURE 40 SOFTWARE TO HOLD LARGER SHARE OF HUMAN MACHINE
INTERFACE MARKET IN 2028

11.2 HARDWARE

TABLE 15 HARDWARE: HUMAN MACHINE INTERFACE MARKET, BY TYPE,
2019–2022 (USD MILLION)

TABLE 16 HARDWARE: HUMAN MACHINE INTERFACE MARKET, BY TYPE,
2023–2028 (USD MILLION)

11.2.1 BY TYPE

11.2.1.1 Basic HMI

11.2.1.1.1 Increasing use of basic HMIs in small-scale machinery and home
automation systems to foster segmental growth

TABLE 17 BASIC HMI: HUMAN MACHINE INTERFACE MARKET, 2019–2022
(THOUSAND UNITS)

TABLE 18 BASIC HMI: HUMAN MACHINE INTERFACE MARKET, 2023–2028
(THOUSAND UNITS)

11.2.1.2 Advanced panel-based HMI

11.2.1.2.1 Shifting preference toward advanced panel-based HMIs with mobile
functionalities to drive market

11.2.1.3 Advanced PC-based HMI

11.2.1.3.1 Growing need for advanced PC-based HMI systems equipped with high-
performance processors to contribute to segmental growth

11.2.2 OTHER HARDWARE TYPES

11.3 SOFTWARE

11.3.1 BY DEPLOYMENT MODE

11.3.1.1 On-premises

11.3.1.1.1 Adoption of on-premise HMI software for enhancing data security and
control to fuel segmental growth

11.3.1.2 Cloud-based

11.3.1.2.1 Reliance on cloud-based HMI software with multi-location access support

to boost segmental growth

FIGURE 41 CLOUD-BASED SEGMENT TO EXHIBIT HIGHER CAGR IN HUMAN MACHINE INTERFACE MARKET DURING FORECAST PERIOD

TABLE 19 SOFTWARE: HUMAN MACHINE INTERFACE MARKET, BY DEPLOYMENT MODE, 2019–2022 (USD MILLION)

TABLE 20 SOFTWARE: HUMAN MACHINE INTERFACE MARKET, BY DEPLOYMENT MODE, 2023–2028 (USD MILLION)

12 HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION

12.1 INTRODUCTION

FIGURE 42 HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION

TABLE 21 HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2019–2022 (USD MILLION)

TABLE 22 HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2023–2028 (USD MILLION)

FIGURE 43 EMBEDDED SEGMENT TO DOMINATE HUMAN MACHINE INTERFACE MARKET BETWEEN 2023 AND 2028

12.2 EMBEDDED

12.2.1 RAPID TECHNOLOGICAL ADVANCEMENTS TO ENCOURAGE ADOPTION OF USER-FRIENDLY EMBEDDED HMI SOLUTIONS

TABLE 23 EMBEDDED: HUMAN MACHINE INTERFACE MARKET, BY PROCESS INDUSTRY, 2019–2022 (USD MILLION)

TABLE 24 EMBEDDED: HUMAN MACHINE INTERFACE MARKET, BY PROCESS INDUSTRY, 2023–2028 (USD MILLION)

TABLE 25 EMBEDDED: HUMAN MACHINE INTERFACE MARKET, BY DISCRETE INDUSTRY, 2019–2022 (USD MILLION)

TABLE 26 EMBEDDED: HUMAN MACHINE INTERFACE MARKET, BY DISCRETE INDUSTRY, 2023–2028 (USD MILLION)

12.3 STANDALONE

12.3.1 DECLINE IN TOTAL OWNERSHIP COST AND EASE OF USE TO CONTRIBUTE TO SEGMENTAL GROWTH

TABLE 27 STANDALONE: HUMAN MACHINE INTERFACE MARKET, BY PROCESS INDUSTRY, 2019–2022 (USD MILLION)

TABLE 28 STANDALONE: HUMAN MACHINE INTERFACE MARKET, BY PROCESS INDUSTRY, 2023–2028 (USD MILLION)

TABLE 29 STANDALONE: HUMAN MACHINE INTERFACE MARKET, BY DISCRETE INDUSTRY, 2019–2022 (USD MILLION)

TABLE 30 STANDALONE: HUMAN MACHINE INTERFACE MARKET, BY DISCRETE

INDUSTRY, 2023–2028 (USD MILLION)

13 HUMAN MACHINE INTERFACE MARKET, BY END-USER INDUSTRY

13.1 INTRODUCTION

FIGURE 44 HUMAN MACHINE INTERFACE MARKET, BY END-USER INDUSTRY

TABLE 31 HUMAN MACHINE INTERFACE MARKET, BY END-USER INDUSTRY, 2019–2022 (USD MILLION)

TABLE 32 HUMAN MACHINE INTERFACE MARKET, BY END-USER INDUSTRY, 2023–2028 (USD MILLION)

13.2 PROCESS INDUSTRIES

FIGURE 45 HUMAN MACHINE INTERFACE MARKET, BY PROCESS INDUSTRY

TABLE 33 HUMAN MACHINE INTERFACE MARKET, BY PROCESS INDUSTRY, 2019–2022 (USD MILLION)

TABLE 34 HUMAN MACHINE INTERFACE MARKET, BY PROCESS INDUSTRY, 2023–2028 (USD MILLION)

TABLE 35 PROCESS INDUSTRIES: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 36 PROCESS INDUSTRIES: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2023–2028 (USD MILLION)

FIGURE 46 NORTH AMERICA TO ACCOUNT FOR LARGEST SHARE OF MARKET FOR PROCESS INDUSTRIES IN 2028

TABLE 37 PROCESS INDUSTRIES: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2019–2022 (USD MILLION)

TABLE 38 PROCESS INDUSTRIES: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2023–2028 (USD MILLION)

13.2.1 OIL & GAS

13.2.1.1 Burgeoning investments in oil and gas exploration projects to accelerate segmental growth

TABLE 39 OIL & GAS: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 40 OIL & GAS: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2023–2028 (USD MILLION)

TABLE 41 OIL & GAS: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2019–2022 (USD MILLION)

TABLE 42 OIL & GAS: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2023–2028 (USD MILLION)

13.2.2 FOOD & BEVERAGES

13.2.2.1 Rising usage of HMI solutions to automate food and beverage

manufacturing operations to fuel segmental growth

TABLE 43 FOOD & BEVERAGES: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 44 FOOD & BEVERAGES: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2023–2028 (USD MILLION)

TABLE 45 FOOD & BEVERAGES: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2019–2022 (USD MILLION)

TABLE 46 FOOD & BEVERAGES: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2023–2028 (USD MILLION)

13.2.3 PHARMACEUTICALS

13.2.3.1 Increasing adoption of HMI solutions to minimize downtime and cost of pharmaceutical operations to foster segmental growth

TABLE 47 PHARMACEUTICALS: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 48 PHARMACEUTICALS: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2023–2028 (USD MILLION)

TABLE 49 PHARMACEUTICALS: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2019–2022 (USD MILLION)

TABLE 50 PHARMACEUTICALS: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2023–2028 (USD MILLION)

13.2.4 CHEMICALS

13.2.4.1 Growing implementation of HMI technology to ensure high safety and quality of chemical products to propel market

TABLE 51 CHEMICALS: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 52 CHEMICALS: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2023–2028 (USD MILLION)

TABLE 53 CHEMICALS: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2019–2022 (USD MILLION)

TABLE 54 CHEMICALS: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2023–2028 (USD MILLION)

13.2.5 ENERGY & POWER

13.2.5.1 Rising adoption of HMI solutions to enhance production output in energy and power plants to accelerate segmental growth

TABLE 55 ENERGY & POWER: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 56 ENERGY & POWER: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2023–2028 (USD MILLION)

TABLE 57 ENERGY & POWER: HUMAN MACHINE INTERFACE MARKET, BY

CONFIGURATION, 2019–2022 (USD MILLION)

TABLE 58 ENERGY & POWER: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2023–2028 (USD MILLION)

13.2.6 METALS & MINING

13.2.6.1 Increasing enforcement of stringent regulations to ensure safety at mine facilities to boost segmental growth

TABLE 59 METALS & MINING: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 60 METALS & MINING: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2023–2028 (USD MILLION)

TABLE 61 METALS & MINING: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2019–2022 (USD MILLION)

TABLE 62 METALS & MINING: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2023–2028 (USD MILLION)

13.2.7 WATER & WASTEWATER TREATMENT

13.2.7.1 Escalating adoption of HMI solutions to improve reliability of water treatment and distribution systems to fuel segmental growth

TABLE 63 WATER & WASTEWATER TREATMENT: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 64 WATER & WASTEWATER TREATMENT: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2023–2028 (USD MILLION)

TABLE 65 WATER & WASTEWATER TREATMENT: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2019–2022 (USD MILLION)

TABLE 66 WATER & WASTEWATER TREATMENT: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2023–2028 (USD MILLION)

13.2.8 OTHER PROCESS INDUSTRIES

TABLE 67 OTHER PROCESS INDUSTRIES: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 68 OTHER PROCESS INDUSTRIES: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2023–2028 (USD MILLION)

TABLE 69 OTHER PROCESS INDUSTRIES: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2019–2022 (USD MILLION)

TABLE 70 OTHER PROCESS INDUSTRIES: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2023–2028 (USD MILLION)

13.3 DISCRETE INDUSTRIES

FIGURE 47 HUMAN MACHINE INTERFACE MARKET, BY DISCRETE INDUSTRY

TABLE 71 HUMAN MACHINE INTERFACE MARKET, BY DISCRETE INDUSTRY, 2019–2022 (USD MILLION)

TABLE 72 HUMAN MACHINE INTERFACE MARKET, BY DISCRETE INDUSTRY,

2023–2028 (USD MILLION)

TABLE 73 DISCRETE INDUSTRIES: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 74 DISCRETE INDUSTRIES: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2023–2028 (USD MILLION)

FIGURE 48 HUMAN MACHINE INTERFACE MARKET IN ASIA PACIFIC FOR DISCRETE INDUSTRIES TO GROW AT HIGHEST CAGR BETWEEN 2023 AND 2028

TABLE 75 DISCRETE INDUSTRIES: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2019–2022 (USD MILLION)

TABLE 76 DISCRETE INDUSTRIES: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2023–2028 (USD MILLION)

13.3.1 AUTOMOBILE

13.3.1.1 Reliance on HMI solutions to analyze automobile manufacturing processes in real time to drive market

TABLE 77 AUTOMOBILE: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 78 AUTOMOBILE: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2023–2028 (USD MILLION)

TABLE 79 AUTOMOBILE: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2019–2022 (USD MILLION)

TABLE 80 AUTOMOBILE: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2023–2028 (USD MILLION)

13.3.2 AEROSPACE

13.3.2.1 Adoption of HMI technology to provide real-time weather information to pilots to accelerate market growth

TABLE 81 AEROSPACE: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 82 AEROSPACE: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2023–2028 (USD MILLION)

TABLE 83 AEROSPACE: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2019–2022 (USD MILLION)

TABLE 84 AEROSPACE: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2023–2028 (USD MILLION)

13.3.3 PACKAGING

13.3.3.1 Requirement to streamline packaging processes and minimize wastage to boost adoption of advanced HMI solutions

TABLE 85 PACKAGING: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 86 PACKAGING: HUMAN MACHINE INTERFACE MARKET, BY REGION,

2023–2028 (USD MILLION)

TABLE 87 PACKAGING: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2019–2022 (USD MILLION)

TABLE 88 PACKAGING: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2023–2028 (USD MILLION)

13.3.4 MEDICAL DEVICES

13.3.4.1 Utilization of HMI software to improvise centralized medical device procurement processes to support market growth

TABLE 89 MEDICAL DEVICES: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 90 MEDICAL DEVICES: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2023–2028 (USD MILLION)

TABLE 91 MEDICAL DEVICES: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2019–2022 (USD MILLION)

TABLE 92 MEDICAL DEVICES: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2023–2028 (USD MILLION)

13.3.5 SEMICONDUCTOR & ELECTRONICS

13.3.5.1 Employment of HMI solutions in semiconductor & electronics manufacturing facilities to fuel segmental growth

TABLE 93 SEMICONDUCTOR & ELECTRONICS: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 94 SEMICONDUCTOR & ELECTRONICS: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2023–2028 (USD MILLION)

TABLE 95 SEMICONDUCTOR & ELECTRONICS: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2019–2022 (USD MILLION)

TABLE 96 SEMICONDUCTOR & ELECTRONICS: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2023–2028 (USD MILLION)

13.3.6 OTHER DISCRETE INDUSTRIES

TABLE 97 OTHER DISCRETE INDUSTRIES: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 98 OTHER DISCRETE INDUSTRIES: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2023–2028 (USD MILLION)

TABLE 99 OTHER DISCRETE INDUSTRIES: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2019–2022 (USD MILLION)

TABLE 100 OTHER DISCRETE INDUSTRIES: HUMAN MACHINE INTERFACE MARKET, BY CONFIGURATION, 2023–2028 (USD MILLION)

14 HUMAN MACHINE INTERFACE MARKET, BY REGION

14.1 INTRODUCTION

FIGURE 49 HUMAN MACHINE INTERFACE MARKET IN CHINA TO EXHIBIT HIGHEST CAGR DURING FORECAST PERIOD

TABLE 101 HUMAN MACHINE INTERFACE MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 102 HUMAN MACHINE INTERFACE MARKET, BY REGION, 2023–2028 (USD MILLION)

14.2 NORTH AMERICA

14.2.1 RECESSION IMPACT ON MARKET IN NORTH AMERICA

TABLE 103 NORTH AMERICA: HUMAN MACHINE INTERFACE MARKET, BY COUNTRY, 2019–2022 (USD MILLION)

TABLE 104 NORTH AMERICA: HUMAN MACHINE INTERFACE MARKET, BY COUNTRY, 2023–2028 (USD MILLION)

FIGURE 50 NORTH AMERICA: HUMAN MACHINE INTERFACE MARKET SNAPSHOT

TABLE 105 NORTH AMERICA: HUMAN MACHINE INTERFACE MARKET, BY PROCESS INDUSTRY, 2019–2022 (USD MILLION)

TABLE 106 NORTH AMERICA: HUMAN MACHINE INTERFACE MARKET, BY PROCESS INDUSTRY, 2023–2028 (USD MILLION)

TABLE 107 NORTH AMERICA: HUMAN MACHINE INTERFACE MARKET, BY DISCRETE INDUSTRY, 2019–2022 (USD MILLION)

TABLE 108 NORTH AMERICA: HUMAN MACHINE INTERFACE MARKET, BY DISCRETE INDUSTRY, 2023–2028 (USD MILLION)

14.2.2 US

14.2.2.1 Deployment of HMI products in renewable energy projects to curb resource wastage to accelerate market growth

14.2.3 CANADA

14.2.3.1 Requirement for advanced manufacturing technologies in food & beverages and chemicals industries to boost adoption of HMI solutions

14.2.4 MEXICO

14.2.4.1 Reliance on advanced manufacturing technologies to contribute to market growth

14.3 EUROPE

14.3.1 RECESSION IMPACT ON MARKET IN EUROPE

TABLE 109 EUROPE: HUMAN MACHINE INTERFACE MARKET, BY COUNTRY, 2019–2022 (USD MILLION)

TABLE 110 EUROPE: HUMAN MACHINE INTERFACE MARKET, BY COUNTRY, 2023–2028 (USD MILLION)

FIGURE 51 EUROPE: HUMAN MACHINE INTERFACE MARKET SNAPSHOT

TABLE 111 EUROPE: HUMAN MACHINE INTERFACE MARKET, BY PROCESS INDUSTRY, 2019–2022 (USD MILLION)

TABLE 112 EUROPE: HUMAN MACHINE INTERFACE MARKET, BY PROCESS INDUSTRY, 2023–2028 (USD MILLION)

TABLE 113 EUROPE: HUMAN MACHINE INTERFACE MARKET, BY DISCRETE INDUSTRY, 2019–2022 (USD MILLION)

TABLE 114 EUROPE: HUMAN MACHINE INTERFACE MARKET, BY DISCRETE INDUSTRY, 2023–2028 (USD MILLION)

14.3.2 UK

14.3.2.1 Adoption of automated systems in manufacturing facilities to foster market growth

14.3.3 GERMANY

14.3.3.1 Utilization of HMI solutions to automate vehicle production process to stimulate market growth

14.3.4 FRANCE

14.3.4.1 Enforcement of regulations to mitigate greenhouse gas emissions to propel market

14.3.5 REST OF EUROPE

14.4 ASIA PACIFIC

14.4.1 RECESSION IMPACT ON MARKET IN ASIA PACIFIC

TABLE 115 ASIA PACIFIC: HUMAN MACHINE INTERFACE MARKET, BY COUNTRY, 2019–2022 (USD MILLION)

TABLE 116 ASIA PACIFIC: HUMAN MACHINE INTERFACE MARKET, BY COUNTRY, 2023–2028 (USD MILLION)

FIGURE 52 ASIA PACIFIC: HUMAN MACHINE INTERFACE MARKET SNAPSHOT

TABLE 117 ASIA PACIFIC: HUMAN MACHINE INTERFACE MARKET, BY PROCESS INDUSTRY, 2019–2022 (USD MILLION)

TABLE 118 ASIA PACIFIC: HUMAN MACHINE INTERFACE MARKET, BY PROCESS INDUSTRY, 2023–2028 (USD MILLION)

TABLE 119 ASIA PACIFIC: HUMAN MACHINE INTERFACE MARKET, BY DISCRETE INDUSTRY, 2019–2022 (USD MILLION)

TABLE 120 ASIA PACIFIC: HUMAN MACHINE INTERFACE MARKET, BY DISCRETE INDUSTRY, 2023–2028 (USD MILLION)

14.4.2 CHINA

14.4.2.1 Surging demand for advanced industrial automation technologies to contribute to market growth

14.4.3 JAPAN

14.4.3.1 Increasing need for automated systems for combating labor shortage to encourage adoption of HMI solutions

14.4.4 INDIA

14.4.4.1 Rapid industrialization and growth of manufacturing industries to create opportunities for HMI solution providers

14.4.5 REST OF ASIA PACIFIC

14.5 ROW

14.5.1 RECESSION IMPACT ON MARKET IN ROW

TABLE 121 ROW: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 122 ROW: HUMAN MACHINE INTERFACE MARKET, BY REGION, 2023–2028 (USD MILLION)

TABLE 123 ROW: HUMAN MACHINE INTERFACE MARKET, BY PROCESS INDUSTRY, 2019–2022 (USD MILLION)

TABLE 124 ROW: HUMAN MACHINE INTERFACE MARKET, BY PROCESS INDUSTRY, 2023–2028 (USD MILLION)

TABLE 125 ROW: HUMAN MACHINE INTERFACE MARKET, BY DISCRETE INDUSTRY, 2019–2022 (USD MILLION)

TABLE 126 ROW: HUMAN MACHINE INTERFACE MARKET, BY DISCRETE INDUSTRY, 2023–2028 (USD MILLION)

14.5.2 SOUTH AMERICA

14.5.2.1 Deployment of HMI technologies to improve manufacturing process and ensure quality control to drive market

14.5.3 GCC

14.5.3.1 Adoption of HMI solutions in construction and infrastructure sectors to boost market growth

14.5.4 AFRICA & REST OF MIDDLE EAST

14.5.4.1 Government initiatives toward clean energy economy to accelerate market growth

15 COMPETITIVE LANDSCAPE

15.1 OVERVIEW

15.2 STRATEGIES ADOPTED BY KEY PLAYERS, 2020–2023

TABLE 127 HUMAN MACHINE INTERFACE MARKET: OVERVIEW OF STRATEGIES ADOPTED BY KEY PLAYERS, 2020–2023

15.3 REVENUE ANALYSIS OF TOP 5 PLAYERS, 2018–2022

FIGURE 53 HUMAN MACHINE INTERFACE MARKET: REVENUE ANALYSIS OF TOP 5 PLAYERS, 2018–2022

15.4 MARKET SHARE ANALYSIS, 2022

TABLE 128 HUMAN MACHINE INTERFACE MARKET SHARE ANALYSIS, 2022

FIGURE 54 HUMAN MACHINE INTERFACE MARKET SHARE ANALYSIS, 2022**15.5 COMPANY EVALUATION MATRIX, 2022****15.5.1 STARS****15.5.2 EMERGING LEADERS****15.5.3 PERVASIVE PLAYERS****15.5.4 PARTICIPANTS****FIGURE 55 HUMAN MACHINE INTERFACE MARKET:****COMPANY EVALUATION MATRIX, 2022****15.5.5 COMPANY FOOTPRINT****TABLE 129 OVERALL COMPANY FOOTPRINT****TABLE 130 COMPANY OFFERING FOOTPRINT****TABLE 131 COMPANY END-USER INDUSTRY FOOTPRINT****TABLE 132 COMPANY REGION FOOTPRINT****15.6 START-UP/SME EVALUATION MATRIX, 2022****15.6.1 PROGRESSIVE COMPANIES****15.6.2 RESPONSIVE COMPANIES****15.6.3 DYNAMIC COMPANIES****15.6.4 STARTING BLOCKS****FIGURE 56 HUMAN MACHINE INTERFACE MARKET: START-UP/SME****EVALUATION MATRIX, 2022****15.6.5 COMPETITIVE BENCHMARKING****TABLE 133 HUMAN MACHINE INTERFACE MARKET: LIST OF KEY START-UPS/SMES****TABLE 134 HUMAN MACHINE INTERFACE MARKET: COMPANY OFFERING FOOTPRINT****TABLE 135 HUMAN MACHINE INTERFACE MARKET: COMPANY END-USER INDUSTRY FOOTPRINT****TABLE 136 HUMAN MACHINE INTERFACE MARKET: COMPANY REGION FOOTPRINT****15.7 COMPETITIVE SCENARIOS AND TRENDS****TABLE 137 HUMAN MACHINE INTERFACE MARKET: PRODUCT LAUNCHES, 2022****TABLE 138 HUMAN MACHINE INTERFACE MARKET: DEALS, 2020–2021****16 COMPANY PROFILES**

(Business Overview, Products/Solutions/Services Offered, Recent Developments, and MnM View (Key strengths/Right to Win, Strategic Choices Made, and Weaknesses and Competitive Threats))*

16.1 KEY PLAYERS

16.1.1 ABB

TABLE 139 ABB: COMPANY OVERVIEW

FIGURE 57 ABB: COMPANY SNAPSHOT

TABLE 140 ABB: PRODUCTS/SOLUTIONS/SERVICES OFFERED

16.1.2 ADVANTECH CO., LTD.

TABLE 141 ADVANTECH CO., LTD.: COMPANY OVERVIEW

FIGURE 58 ADVANTECH CO., LTD.: COMPANY SNAPSHOT

TABLE 142 ADVANTECH CO., LTD.: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 143 ADVANTECH CO., LTD.: PRODUCT LAUNCHES

16.1.3 EMERSON ELECTRIC CO.

TABLE 144 EMERSON ELECTRIC CO.: COMPANY OVERVIEW

FIGURE 59 EMERSON ELECTRIC CO.: COMPANY SNAPSHOT

TABLE 145 EMERSON ELECTRIC CO.: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 146 EMERSON ELECTRIC CO.: PRODUCT LAUNCHES

TABLE 147 EMERSON ELECTRIC CO.: DEALS

16.1.4 GENERAL ELECTRIC

TABLE 148 GENERAL ELECTRIC: COMPANY OVERVIEW

FIGURE 60 GENERAL ELECTRIC: COMPANY SNAPSHOT

TABLE 149 GENERAL ELECTRIC: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 150 GENERAL ELECTRIC: PRODUCT LAUNCHES

16.1.5 HONEYWELL INTERNATIONAL INC.

TABLE 151 HONEYWELL INTERNATIONAL INC.: COMPANY OVERVIEW

FIGURE 61 HONEYWELL INTERNATIONAL INC.: COMPANY SNAPSHOT

TABLE 152 HONEYWELL INTERNATIONAL INC.:
PRODUCTS/SOLUTIONS/SERVICES OFFERED

16.1.5.3 Recent developments

TABLE 153 HONEYWELL INTERNATIONAL INC.: DEALS

16.1.6 MITSUBISHI ELECTRIC CORPORATION

TABLE 154 MITSUBISHI ELECTRIC CORPORATION: COMPANY OVERVIEW

FIGURE 62 MITSUBISHI ELECTRIC CORPORATION: COMPANY SNAPSHOT

TABLE 155 MITSUBISHI ELECTRIC CORPORATION:
PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 156 MITSUBISHI ELECTRIC CORPORATION: PRODUCT LAUNCHES

16.1.7 ROCKWELL AUTOMATION

TABLE 157 ROCKWELL AUTOMATION: COMPANY OVERVIEW

FIGURE 63 ROCKWELL AUTOMATION: COMPANY SNAPSHOT

TABLE 158 ROCKWELL AUTOMATION: PRODUCTS/SOLUTIONS/SERVICES OFFERED

TABLE 159 ROCKWELL AUTOMATION: PRODUCT LAUNCHES

TABLE 160 ROCKWELL AUTOMATION: DEALS

16.1.8 SCHNEIDER ELECTRIC

TABLE 161 SCHNEIDER ELECTRIC: COMPANY OVERVIEW

FIGURE 64 SCHNEIDER ELECTRIC: COMPANY SNAPSHOT

TABLE 162 SCHNEIDER ELECTRIC: PRODUCTS/SOLUTIONS/SERVICES OFFERED

16.1.9 SIEMENS

TABLE 163 SIEMENS: COMPANY OVERVIEW

FIGURE 65 SIEMENS: COMPANY SNAPSHOT

TABLE 164 SIEMENS: PRODUCTS/SOLUTIONS/SERVICES OFFERED

16.1.10 YOKOGAWA ELECTRIC CORPORATION

TABLE 165 YOKOGAWA ELECTRIC CORPORATION: COMPANY OVERVIEW

FIGURE 66 YOKOGAWA ELECTRIC CORPORATION: COMPANY SNAPSHOT

TABLE 166 YOKOGAWA ELECTRIC CORPORATION: PRODUCTS/SOLUTIONS/SERVICES OFFERED

16.2 OTHER PLAYERS

16.2.1 AMERICAN INDUSTRIAL SYSTEMS INC.

16.2.2 BARTEC TOP HOLDING GMBH

16.2.3 BECKHOFF AUTOMATION

16.2.4 EAO AG

16.2.5 INDUCTIVE AUTOMATION, LLC

16.2.6 MAKERSAN

16.2.7 MAPLE SYSTEMS INC.

16.2.8 MICON AUTOMATION SYSTEMS PVT. LTD.

16.2.9 NOVAKON CO., LTD.

16.2.10 PCI PRIVATE LIMITED

16.2.11 RED LION

16.2.12 RITTAL GMBH & CO. KG

16.2.13 SENECA SRL

16.2.14 WECON

16.2.15 WEINTEK LABS., INC.

*Details on Business Overview, Products/Solutions/Services Offered, Recent Developments, and MnM View (Key strengths/Right to Win, Strategic Choices Made, and Weaknesses and Competitive Threats) might not be captured in case of unlisted companies.

17 ADJACENT MARKET

17.1 INDUSTRIAL PC MARKET

17.2 INTRODUCTION

FIGURE 67 PANEL IPC SEGMENT TO DOMINATE INDUSTRIAL PC MARKET FROM 2023 TO 2028

TABLE 167 INDUSTRIAL PC MARKET, BY TYPE, 2019–2022 (USD MILLION)

TABLE 168 INDUSTRIAL PC MARKET, BY TYPE, 2023–2028 (USD MILLION)

17.3 PANEL IPC

17.3.1 GROWING ADOPTION OF AUTOMATED MANUFACTURING TECHNOLOGIES TO DRIVE SEGMENTAL GROWTH

TABLE 169 PANEL IPC: INDUSTRIAL PC MARKET, BY REGION,

2019–2022 (USD MILLION)

TABLE 170 PANEL IPC: INDUSTRIAL PC MARKET, BY REGION,

2023–2028 (USD MILLION)

17.4 RACK MOUNT IPC

17.4.1 RISING NEED FOR COMPACT DESIGNS IN SPACE-CONSTRAINED APPLICATIONS TO BOOST MARKET GROWTH

TABLE 171 RACK MOUNT IPC: INDUSTRIAL PC MARKET, BY REGION,

2019–2022 (USD MILLION)

TABLE 172 RACK MOUNT IPC: INDUSTRIAL PC MARKET, BY REGION,

2023–2028 (USD MILLION)

17.5 DIN RAIL IPC

17.5.1 INCREASING USE OF RUGGED AND SCALABLE DIN RAIL IPCS FOR MAINTENANCE-FREE AND CONTINUOUS OPERATIONS TO FUEL SEGMENTAL GROWTH

TABLE 173 DIN RAIL IPC: INDUSTRIAL PC MARKET, BY REGION,

2019–2022 (USD MILLION)

TABLE 174 DIN RAIL IPC: INDUSTRIAL PC MARKET, BY REGION,

2023–2028 (USD MILLION)

17.6 EMBEDDED IPC

17.6.1 ESCALATING USAGE OF EMBEDDED IPCS IN HIGH-BANDWIDTH PROJECTS TO FOSTER MARKET GROWTH

TABLE 175 EMBEDDED IPC: INDUSTRIAL PC MARKET, BY REGION,

2019–2022 (USD MILLION)

TABLE 176 EMBEDDED IPC: INDUSTRIAL PC MARKET, BY REGION,

2023–2028 (USD MILLION)

18 APPENDIX

18.1 INSIGHTS FROM INDUSTRY EXPERTS

18.2 DISCUSSION GUIDE

18.3 KNOWLEDGESTORE: MARKETSandMARKETS' SUBSCRIPTION PORTAL

18.4 CUSTOMIZATION OPTIONS

18.5 RELATED REPORTS

18.6 AUTHOR DETAILS

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