

# **Digital Twin Market by Application(Predictive Maintenance, Business Optimization, Performance Monitoring, Inventory Management), Industry(Automotive & Transportation, Healthcare, Energy & Utilities), Enterprise and Geography - Global Forecast to 2028**

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## **Abstracts**

The digital twin market is expected to grow from USD 10.1 billion in 2023 to USD 110.1 billion by 2028, at a CAGR of 61.3% during the forecast period. The growth of the digital twin market is driven mainly by the growing demand for digital twin in the healthcare industry and the growing focus on predictive maintenance.

“The digital twin market for the healthcare industry is expected to grow at the highest CAGR during the forecast period”

The digital twin market for the healthcare industry is expected to grow at the highest CAGR during the forecast period. Digital twins offer immense potential to improve patient outcomes and healthcare delivery in healthcare. By creating virtual replicas of physical assets, processes, or even individuals, healthcare providers can gain valuable insights, optimize workflows, and enhance decision-making. Digital twins enable real-time monitoring, predictive analytics, and personalized treatments, leading to more effective and efficient healthcare practices. Furthermore, technological advancements play a significant role in driving the growth of the digital twin market in the healthcare industry. The proliferation of Internet of Things (IoT) devices, cloud computing, artificial intelligence, and big data analytics has made it easier to collect and process vast amounts of healthcare-related data. This data can be leveraged to build and refine digital twin models, enabling healthcare professionals to simulate and test various

scenarios, identify potential issues, and develop targeted interventions.

“Predictive maintenance segment is expected to dominate the digital twin market throughout the forecast period”

The predictive maintenance application is expected to account for the largest size of the digital twin market throughout the forecast period. Predictive maintenance offers significant advantages in terms of cost savings and operational efficiency. By utilizing digital twin technology, organizations can continuously monitor the performance of their assets in real-time. This enables them to detect anomalies, identify potential equipment failures, and proactively schedule maintenance activities. Organizations can minimize disruptions, optimize asset utilization, and reduce overall maintenance costs by addressing maintenance needs before they escalate into costly breakdowns or downtime. In addition, predictive maintenance aligns well with the growing adoption of Internet of Things (IoT) devices and sensors. These connected devices generate vast data regarding asset performance, environmental conditions, and usage patterns. By leveraging digital twins, organizations can integrate and analyze this data to gain insights into asset health, predict failure probabilities, and prescribe preventive measures. This data-driven approach allows for optimized maintenance schedules, reduced unplanned downtime, and improved asset reliability.

“Digital twin market in North America region to register highest CAGR between 2023 and 2028”

The digital twin market in North America is expected to grow at the highest CAGR during the forecast period. North America has a robust technological infrastructure and a mature market for digital twin solutions. The region has numerous technology companies, research institutions, and innovative startups actively developing and implementing digital twin technologies across various industries. The availability of advanced technologies, expertise, and investments in research and development positions North America as a frontrunner in the digital twin market. Furthermore, North America has a strong presence in key industries that heavily rely on digital twin technologies, such as manufacturing, healthcare, automotive, aerospace, and defense. These industries recognize the value of digital twins in optimizing operations, improving product development, enhancing maintenance processes, and driving innovation. The increasing adoption of digital twins in these industries is expected to contribute significantly to regional market growth.

Breakdown of primaries

In 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 digital twin market space. The break-up of primary participants for the report has been shown below:

By Company Type: Tier 1 – 45%, Tier 2 – 25%, and Tier 3 – 30%

By Designation: C-level Executives – 40%, Directors – 25%, and Others – 35%

By Region: North America – 40%, Europe – 25%, Asia Pacific – 20%, and Rest of the World – 10%

Key players in the digital twin market are General Electric (US), Microsoft (US), Siemens (Germany), Amazon Web Services (US), ANSYS (US), Dassault Systèmes (France), PTC (US), Robert Bosch (Germany), and others.

The digital twin market has been segmented into enterprise, application, industry, and region. The digital twin market has been studied in North America, Europe, Asia Pacific, and the Rest of the World.

Reasons to buy the report:

The report will help the market leaders/new entrants with information on the closest approximate revenues for the digital twin 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 emphasis on digital twin in manufacturing industries to reduce cost and improve supply chain operations, increasing demand for digital twin from the healthcare industry, and growing focus on predictive maintenance), restraints (high investments associated with implementation of digital twin technology and susceptibility of digital twin to cyberattacks), opportunities (rising emphasis on advanced real-time data

analytics, increasing adoption of industry 4.0 principles, and development of human-centered digital twins), and challenges (complexities associated with data collection and mathematical models and lack of skilled workforce and awareness regarding cost benefit offered by digital twins).

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

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

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

**Competitive Assessment:** In-depth assessment of market shares, growth strategies, and product offerings of leading players like General Electric (US), Microsoft (US), Siemens (Germany), Amazon Web Services (US), ANSYS (US), Dassault Systèmes (France), PTC (US), Robert Bosch (Germany), among others.

## Contents

### 1 INTRODUCTION

#### 1.1 STUDY OBJECTIVES

#### 1.2 MARKET DEFINITION

#### 1.3 MARKET SCOPE

##### 1.3.1 MARKETS COVERED

#### FIGURE 1 DIGITAL TWIN MARKET SEGMENTATION

##### 1.3.2 INCLUSIONS AND EXCLUSIONS

##### 1.3.3 GEOGRAPHICAL SCOPE

##### 1.3.4 YEARS CONSIDERED

#### 1.4 CURRENCY CONSIDERED

#### 1.5 LIMITATIONS

#### 1.6 STAKEHOLDERS

#### 1.7 SUMMARY OF CHANGES

##### 1.7.1 IMPACT OF RECESSION

### 2 RESEARCH METHODOLOGY

#### 2.1 RESEARCH DATA

#### FIGURE 2 DIGITAL TWIN MARKET: RESEARCH DESIGN

##### 2.1.1 SECONDARY AND PRIMARY RESEARCH

#### FIGURE 3 DIGITAL TWIN MARKET: RESEARCH APPROACH

##### 2.1.2 SECONDARY DATA

###### 2.1.2.1 List of 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 Key data from primary sources

###### 2.1.3.3 Key industry insights

###### 2.1.3.4 Breakdown of primaries

#### 2.2 MARKET SIZE ESTIMATION

##### 2.2.1 BOTTOM-UP APPROACH

###### 2.2.1.1 Approach to capture 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 capture market size using top-down analysis (supply side)

#### FIGURE 5 TOP-DOWN APPROACH

FIGURE 6 MARKET SIZE ESTIMATION METHODOLOGY: (DEMAND SIDE)  
REVENUE GENERATED BY COMPANIES IN DIGITAL TWIN MARKET

2.3 MARKET BREAKDOWN AND DATA TRIANGULATION

FIGURE 7 DATA TRIANGULATION METHODOLOGY

2.4 RESEARCH ASSUMPTIONS

2.5 PARAMETERS CONSIDERED TO ANALYZE IMPACT OF RECESSION ON  
DIGITAL TWIN MARKET

2.6 RESEARCH LIMITATIONS

2.7 RISK ASSESSMENT

### **3 EXECUTIVE SUMMARY**

FIGURE 8 PREDICTIVE MAINTENANCE SEGMENT TO HOLD LARGEST MARKET  
SHARE OF DIGITAL TWIN MARKET, BY APPLICATION, IN 2028

FIGURE 9 SMALL & MEDIUM ENTERPRISES TO REGISTER HIGHEST CAGR  
DURING FORECAST PERIOD

FIGURE 10 AUTOMOTIVE & TRANSPORTATION INDUSTRY TO HOLD LARGEST  
MARKET SHARE DURING FORECAST PERIOD

FIGURE 11 NORTH AMERICA ACCOUNTED FOR LARGEST MARKET SHARE IN  
2022

### **4 PREMIUM INSIGHTS**

4.1 ATTRACTIVE OPPORTUNITIES FOR PLAYERS IN DIGITAL TWIN MARKET

FIGURE 12 RISING ADOPTION OF DIGITAL TWIN SOLUTIONS BY  
MANUFACTURING FIRMS TO FUEL MARKET GROWTH

4.2 DIGITAL TWIN MARKET, BY APPLICATION

FIGURE 13 PREDICTIVE MAINTENANCE SEGMENT TO DOMINATE MARKET  
THROUGHOUT FORECAST PERIOD

4.3 DIGITAL TWIN MARKET IN NORTH AMERICA, BY INDUSTRY AND COUNTRY

FIGURE 14 AUTOMOTIVE & TRANSPORTATION INDUSTRY AND US TO SECURE  
LARGEST MARKET SHARE OF NORTH AMERICAN MARKET IN 2028

4.4 DIGITAL TWIN MARKET, BY INDUSTRY

FIGURE 15 AUTOMOTIVE & TRANSPORTATION INDUSTRY TO CAPTURE  
LARGEST MARKET SHARE IN 2023

4.5 DIGITAL TWIN MARKET, BY COUNTRY

FIGURE 16 CHINA TO REGISTER HIGHEST CAGR IN GLOBAL DIGITAL TWIN  
MARKET DURING FORECAST PERIOD

## 5 MARKET OVERVIEW

### 5.1 INTRODUCTION

### 5.2 MARKET DYNAMICS

#### FIGURE 17 DIGITAL TWIN MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES

##### 5.2.1 DRIVERS

5.2.1.1 Growing use of digital twin technology to reduce costs and improve supply chain operations

5.2.1.2 Surging demand for digital twin technology from healthcare industry

5.2.1.3 Increasing adoption of predictive maintenance model across industries

#### FIGURE 18 DIGITAL TWIN MARKET: IMPACT OF DRIVERS

##### 5.2.2 RESTRAINTS

5.2.2.1 High capital requirement to implement digital twin technology

5.2.2.2 Susceptibility of digital twin technology to cyberattacks

#### FIGURE 19 DIGITAL TWIN MARKET: IMPACT OF RESTRAINTS

##### 5.2.3 OPPORTUNITIES

5.2.3.1 Surging demand for advanced real-time data analytics

5.2.3.2 Increasing adoption of Industry 4.0 principles

5.2.3.3 Development of human-centered digital twins

#### FIGURE 20 DIGITAL TWIN MARKET: IMPACT OF OPPORTUNITIES

##### 5.2.4 CHALLENGES

5.2.4.1 Complexities associated with data collection and mathematical models

5.2.4.2 Shortage of skilled workforce

#### FIGURE 21 DIGITAL TWIN MARKET: IMPACT OF CHALLENGES

### 5.3 VALUE CHAIN ANALYSIS

#### FIGURE 22 DIGITAL TWIN MARKET: VALUE CHAIN ANALYSIS

### 5.4 ECOSYSTEM MAPPING

#### FIGURE 23 ECOSYSTEM ANALYSIS

#### TABLE 1 ROLE OF KEY PLAYERS IN DIGITAL TWIN ECOSYSTEM

### 5.5 PRICING ANALYSIS

#### 5.5.1 DIGITAL TWIN PRICING, BY APPLICATION

#### FIGURE 24 AVERAGE SELLING PRICE OF DIGITAL TWIN SOLUTIONS OFFERED BY KEY COMPANIES, BY GEOGRAPHY

#### TABLE 2 AVERAGE SELLING PRICE OF DIGITAL TWIN SOLUTIONS, BY REGION

### 5.6 TRENDS/DISRUPTIONS IMPACTING CUSTOMER BUSINESS

#### FIGURE 25 REVENUE SHIFTS AND NEW REVENUE POCKETS FOR PLAYERS IN DIGITAL TWIN MARKET

### 5.7 TECHNOLOGY ANALYSIS

5.7.1 IOT AND IIOT

5.7.2 AI AND ML

5.7.3 AUGMENTED REALITY, VIRTUAL REALITY, AND MIXED REALITY

5.7.4 5G

5.7.5 CLOUD COMPUTING AND EDGE COMPUTING

5.7.6 BLOCKCHAIN

5.8 PORTER'S FIVE FORCES ANALYSIS

FIGURE 26 DIGITAL TWIN MARKET: PORTER'S FIVE FORCES ANALYSIS

5.8.1 THREAT OF NEW ENTRANTS

5.8.2 THREAT OF SUBSTITUTES

5.8.3 BARGAINING POWER OF BUYERS

5.8.4 BARGAINING POWER OF SUPPLIERS

5.8.5 INTENSITY OF COMPETITIVE RIVALRY

5.9 KEY STAKEHOLDERS AND BUYING CRITERIA

5.9.1 KEY STAKEHOLDERS IN BUYING PROCESS

FIGURE 27 INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR TOP THREE INDUSTRIES

TABLE 3 INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS, BY INDUSTRY

5.9.2 BUYING CRITERIA

FIGURE 28 KEY BUYING CRITERIA OF TOP THREE INDUSTRIES

TABLE 4 KEY BUYING CRITERIA, BY END USER

5.10 CASE STUDY ANALYSIS

5.10.1 TEMPLE UNIVERSITY, US, USES DIGITAL TWIN TECHNOLOGY TO ENHANCE OPERATIONS ACROSS CAMPUS

5.10.2 FAURECIA ADOPTS 3DEXPERIENCE DIGITAL TWIN PLATFORM TO OPTIMIZE AGV INBOUND LOGISTICS

5.10.3 DOOSAN OPTIMIZES ENERGY OUTPUT IN WIND FARMS BY IMPLEMENTING AZURE DIGITAL TWINS

5.10.4 IBM INCORPORATES DIGITAL TWINS TO IMPROVE SPARE PART INVENTORY

5.10.5 USE HEALTHCARE PROFESSIONALS USE DIGITAL TWINS TO DEVELOP PERSONALIZED AND BETTER CARE PLANS

5.11 TRADE ANALYSIS

FIGURE 29 IMPORT DATA FOR PRODUCTS COVERED UNDER HS CODE 851769, BY COUNTRY, 2018–2022 (USD MILLION)

FIGURE 30 EXPORT DATA FOR PRODUCTS COVERED UNDER HS CODE 851769, BY COUNTRY, 2018–2022 (USD MILLION)

5.12 PATENT ANALYSIS

FIGURE 31 TOP 10 COMPANIES WITH LARGEST NUMBER OF PATENT



APPLICATIONS FOR DIGITAL TWINS, 2013–2022

TABLE 5 TOP 20 PATENT OWNERS IN LAST 10 YEARS, 2013–2022

FIGURE 32 NUMBER OF PATENTS GRANTED FROM 2013 TO 2022

TABLE 6 DIGITAL TWIN MARKET: INNOVATIONS AND PATENT REGISTRATIONS, 2021–2022

5.13 KEY CONFERENCES AND EVENTS, 2023–2024

TABLE 7 DIGITAL TWIN MARKET: LIST OF CONFERENCES AND EVENTS

5.14 TARIFFS AND REGULATORY LANDSCAPE

5.14.1 REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 8 NORTH AMERICA: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

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

TABLE 10 ASIA PACIFIC: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

TABLE 11 ROW: LIST OF REGULATORY BODIES, GOVERNMENT AGENCIES, AND OTHER ORGANIZATIONS

5.14.2 STANDARDS AND REGULATIONS RELATED TO DIGITAL TWIN TECHNOLOGY

TABLE 12 DIGITAL TWIN: STANDARDS AND REGULATIONS

## **6 DIGITAL TWIN ADOPTION IN DIFFERENT PROCESSES, COMPONENTS, PRODUCTS, AND SYSTEMS**

6.1 INTRODUCTION

6.2 COMPONENT DIGITAL TWIN

6.3 PRODUCT DIGITAL TWIN

6.4 PROCESS DIGITAL TWIN

6.5 SYSTEM DIGITAL TWIN

## **7 DIGITAL TWIN MODELS**

7.1 INTRODUCTION

7.2 PLATFORM AS A SERVICE (PAAS)

7.3 SOFTWARE AS A SERVICE (SAAS)

## **8 DIGITAL TWIN MARKET, BY ENTERPRISE SIZE**

## 8.1 INTRODUCTION

FIGURE 33 DIGITAL TWIN MARKET FOR SMALL & MEDIUM ENTERPRISES TO GROW AT HIGHER CAGR DURING FORECAST PERIOD

TABLE 13 DIGITAL TWIN MARKET, BY ENTERPRISE SIZE, 2019–2022 (USD MILLION)

TABLE 14 DIGITAL TWIN MARKET, BY ENTERPRISE SIZE, 2023–2028 (USD MILLION)

## 8.2 LARGE ENTERPRISES

8.2.1 RAPID DEPLOYMENT OF BLOCKCHAIN TECHNOLOGY IN HEALTHCARE SECTOR TO DRIVE MARKET

TABLE 15 LARGE ENTERPRISES: DIGITAL TWIN MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 16 LARGE ENTERPRISES: DIGITAL TWIN MARKET, BY REGION, 2023–2028 (USD MILLION)

## 8.3 SMALL & MEDIUM ENTERPRISES (SMES)

8.3.1 SUBSCRIPTION-BASED DIGITAL TWIN SERVICES TO BOOST SEGMENTAL GROWTH

TABLE 17 SMALL & MEDIUM ENTERPRISES: DIGITAL TWIN MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 18 SMALL & MEDIUM ENTERPRISES: DIGITAL TWIN MARKET, BY REGION, 2023–2028 (USD MILLION)

# 9 DIGITAL TWIN MARKET, BY APPLICATION

## 9.1 INTRODUCTION

FIGURE 34 DIGITAL TWIN MARKET, BY APPLICATION

FIGURE 35 PREDICTIVE MAINTENANCE SEGMENT TO LEAD MARKET DURING FORECAST PERIOD

TABLE 19 DIGITAL TWIN MARKET, BY APPLICATION, 2019–2022 (USD MILLION)

TABLE 20 DIGITAL TWIN MARKET, BY APPLICATION, 2023–2028 (USD MILLION)

## 9.2 PRODUCT DESIGN & DEVELOPMENT

9.2.1 RISING FOCUS OF PRODUCT DESIGNERS TO VISUALIZE AND ANALYZE PRODUCTS VIRTUALLY TO BOOST SEGMENTAL GROWTH

TABLE 21 PRODUCT DESIGN & DEVELOPMENT: DIGITAL TWIN MARKET, BY INDUSTRY, 2019–2022 (USD MILLION)

TABLE 22 PRODUCT DESIGN & DEVELOPMENT: DIGITAL TWIN MARKET, BY INDUSTRY, 2023–2028 (USD MILLION)

## 9.3 PERFORMANCE MONITORING

9.3.1 GREATER EMPHASIS OF INDUSTRY PLAYERS ON MITIGATING COSTLY

## EQUIPMENT FAILURES TO DRIVE SEGMENTAL GROWTH

TABLE 23 PERFORMANCE MONITORING: DIGITAL TWIN MARKET, BY INDUSTRY  
2019–2022 (USD MILLION)

TABLE 24 PERFORMANCE MONITORING: DIGITAL TWIN MARKET, BY INDUSTRY,  
2023–2028 (USD MILLION)

### 9.4 PREDICTIVE MAINTENANCE

9.4.1 GROWING FOCUS OF MANUFACTURING FIRMS ON COST SAVING TO  
CONTRIBUTE TO SEGMENTAL GROWTH

TABLE 25 PREDICTIVE MAINTENANCE: DIGITAL TWIN MARKET, BY INDUSTRY,  
2019–2022 (USD MILLION)

TABLE 26 PREDICTIVE MAINTENANCE: DIGITAL TWIN MARKET, BY INDUSTRY,  
2023–2028 (USD MILLION)

### 9.5 INVENTORY MANAGEMENT

9.5.1 INCREASING ADOPTION OF DIGITAL TWIN TO AVOID STOCKOUTS TO  
SUPPORT SEGMENTAL GROWTH

TABLE 27 INVENTORY MANAGEMENT: DIGITAL TWIN MARKET, BY INDUSTRY,  
2019–2022 (USD MILLION)

TABLE 28 INVENTORY MANAGEMENT: DIGITAL TWIN MARKET, BY INDUSTRY,  
2023–2028 (USD MILLION)

### 9.6 BUSINESS OPTIMIZATION

9.6.1 STRONG FOCUS ON COST-EFFECTIVE AND FASTER PRODUCTIVE  
DEVELOPMENT TO DRIVE SEGMENTAL GROWTH

TABLE 29 BUSINESS OPTIMIZATION: DIGITAL TWIN MARKET, BY INDUSTRY,  
2019–2022 (USD MILLION)

TABLE 30 BUSINESS OPTIMIZATION: DIGITAL TWIN MARKET, BY INDUSTRY,  
2023–2028 (USD MILLION)

### 9.7 OTHER APPLICATIONS

TABLE 31 OTHER APPLICATIONS: DIGITAL TWIN MARKET, BY INDUSTRY,  
2019–2022 (USD MILLION)

TABLE 32 OTHER APPLICATIONS: DIGITAL TWIN MARKET, BY INDUSTRY,  
2023–2028 (USD MILLION)

## 10 DIGITAL TWIN MARKET, BY INDUSTRY

### 10.1 INTRODUCTION

FIGURE 36 DIGITAL TWIN MARKET, BY INDUSTRY

FIGURE 37 HEALTHCARE SEGMENT TO DISPLAY HIGHEST CAGR DURING  
FORECAST PERIOD

TABLE 33 DIGITAL TWIN MARKET, BY INDUSTRY, 2019–2022 (USD MILLION)

TABLE 34 DIGITAL TWIN MARKET, BY INDUSTRY, 2023–2028 (USD MILLION)

## 10.2 AUTOMOTIVE & TRANSPORTATION

10.2.1 NEED TO OPTIMIZE AND ENHANCE TIME-CONSUMING PROCESSES IN VEHICLE MANUFACTURING TO BOOST ADOPTION OF DIGITAL TWINS

TABLE 35 AUTOMOTIVE & TRANSPORTATION: DIGITAL TWIN MARKET, BY APPLICATION, 2019–2022 (USD MILLION)

TABLE 36 AUTOMOTIVE & TRANSPORTATION: DIGITAL TWIN MARKET, BY APPLICATION, 2023–2028 (USD MILLION)

TABLE 37 AUTOMOTIVE & TRANSPORTATION: DIGITAL TWIN MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 38 AUTOMOTIVE & TRANSPORTATION: DIGITAL TWIN MARKET, BY REGION, 2023–2028 (USD MILLION)

## 10.3 ENERGY & UTILITIES

10.3.1 RISING APPLICATION OF DIGITAL TWIN TECHNOLOGY IN WIND FARMS TO BENEFIT MARKET

TABLE 39 ENERGY & UTILITIES: DIGITAL TWIN MARKET, BY APPLICATION, 2019–2022 (USD MILLION)

TABLE 40 ENERGY & UTILITIES: DIGITAL TWIN MARKET, BY APPLICATION, 2023–2028 (USD MILLION)

TABLE 41 ENERGY & UTILITIES: DIGITAL TWIN MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 42 ENERGY & UTILITIES: DIGITAL TWIN MARKET, BY REGION, 2023–2028 (USD MILLION)

## 10.4 INFRASTRUCTURE

10.4.1 SMART CITY PROJECTS AND SMART TRANSPORTATION INITIATIVES TO DRIVE MARKET

TABLE 43 INFRASTRUCTURE: DIGITAL TWIN MARKET, BY APPLICATION, 2019–2022 (USD MILLION)

TABLE 44 INFRASTRUCTURE: DIGITAL TWIN MARKET, BY APPLICATION, 2023–2028 (USD MILLION)

TABLE 45 INFRASTRUCTURE: DIGITAL TWIN MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 46 INFRASTRUCTURE: DIGITAL TWIN MARKET, BY REGION, 2023–2028 (USD MILLION)

## 10.5 HEALTHCARE

10.5.1 DIGITAL TRANSFORMATION IN HEALTHCARE INDUSTRY TO DRIVE MARKET

TABLE 47 HEALTHCARE: DIGITAL TWIN MARKET, BY APPLICATION, 2019–2022 (USD MILLION)

TABLE 48 HEALTHCARE: DIGITAL TWIN MARKET, BY APPLICATION, 2023–2028 (USD MILLION)

TABLE 49 HEALTHCARE: DIGITAL TWIN MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 50 HEALTHCARE: DIGITAL TWIN MARKET, BY REGION, 2023–2028 (USD MILLION)

## 10.6 AEROSPACE

10.6.1 PRESSING NEED FOR REAL-TIME TELEMETRY DATA TO AVOID DANGEROUS SITUATIONS TO ACCELERATE DEMAND FOR DIGITAL TWIN TECHNOLOGY

TABLE 51 AEROSPACE: DIGITAL TWIN MARKET, BY APPLICATION, 2019–2022 (USD MILLION)

TABLE 52 AEROSPACE: DIGITAL TWIN MARKET, BY APPLICATION, 2023–2028 (USD MILLION)

TABLE 53 AEROSPACE: DIGITAL TWIN MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 54 AEROSPACE: DIGITAL TWIN MARKET, BY REGION, 2023–2028 (USD MILLION)

## 10.7 OIL & GAS

10.7.1 INCREASING USE OF DIGITAL TWIN OPTIMIZE OIL AND GAS PLANT OPERATIONS TO DRIVE MARKET

TABLE 55 OIL & GAS: DIGITAL TWIN MARKET, BY APPLICATION, 2019–2022 (USD MILLION)

TABLE 56 OIL & GAS: DIGITAL TWIN MARKET, BY APPLICATION, 2023–2028 (USD MILLION)

TABLE 57 OIL & GAS: DIGITAL TWIN MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 58 OIL & GAS: DIGITAL TWIN MARKET, BY REGION, 2023–2028 (USD MILLION)

## 10.8 TELECOMMUNICATIONS

10.8.1 RISING IMPLEMENTATION OF DIGITAL TWIN SOLUTIONS TO ENHANCE NETWORK OPTIMIZATION AND 5G DEPLOYMENT TO STRENGTHEN MARKET

TABLE 59 TELECOMMUNICATIONS: DIGITAL TWIN MARKET, BY APPLICATION, 2019–2022 (USD MILLION)

TABLE 60 TELECOMMUNICATIONS: DIGITAL TWIN MARKET, BY APPLICATION, 2023–2028 (USD MILLION)

TABLE 61 TELECOMMUNICATIONS: DIGITAL TWIN MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 62 TELECOMMUNICATIONS: DIGITAL TWIN MARKET, BY REGION,

2023–2028 (USD MILLION)

#### 10.9 AGRICULTURE

10.9.1 INCREASED FOCUS ON REAL-TIME MONITORING OF CROPS AND DECISION-MAKING TO BOOST DIGITAL TWIN ADOPTION TO CONTRIBUTE TO MARKET GROWTH

TABLE 63 AGRICULTURE: DIGITAL TWIN MARKET, BY APPLICATION, 2019–2022 (USD MILLION)

TABLE 64 AGRICULTURE: DIGITAL TWIN MARKET, BY APPLICATION, 2023–2028 (USD MILLION)

TABLE 65 AGRICULTURE: DIGITAL TWIN MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 66 AGRICULTURE: DIGITAL TWIN MARKET, BY REGION, 2023–2028 (USD MILLION)

#### 10.10 RETAIL

10.10.1 SURGING ADOPTION OF DIGITAL TWIN SOLUTIONS TO IMPROVE CUSTOMER ENGAGEMENT AND SATISFACTION TO PROPEL MARKET

TABLE 67 RETAIL: DIGITAL TWIN MARKET, BY APPLICATION, 2019–2022 (USD MILLION)

TABLE 68 RETAIL: DIGITAL TWIN MARKET, BY APPLICATION, 2023–2028 (USD MILLION)

TABLE 69 RETAIL: DIGITAL TWIN MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 70 RETAIL: DIGITAL TWIN MARKET, BY REGION, 2023–2028 (USD MILLION)

#### 10.11 OTHER INDUSTRIES

TABLE 71 OTHER APPLICATIONS: DIGITAL TWIN MARKET, BY APPLICATION, 2019–2022 (USD MILLION)

TABLE 72 OTHER APPLICATIONS: DIGITAL TWIN MARKET, BY APPLICATION, 2023–2028 (USD MILLION)

TABLE 73 OTHER APPLICATIONS: DIGITAL TWIN MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 74 OTHER APPLICATIONS: DIGITAL TWIN MARKET, BY REGION, 2023–2028 (USD MILLION)

## 11 REGIONAL ANALYSIS

### 11.1 INTRODUCTION

FIGURE 38 DIGITAL TWIN MARKET IN CHINA TO GROW AT HIGHEST CAGR FROM 2023 TO 2028

**FIGURE 39 NORTH AMERICA TO DOMINATE DIGITAL TWIN MARKET DURING FORECAST PERIOD**

TABLE 75 DIGITAL TWIN MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 76 DIGITAL TWIN MARKET, BY REGION, 2023–2028 (USD MILLION)

**11.2 NORTH AMERICA****11.3 NORTH AMERICA: RECESSION IMPACT****FIGURE 40 NORTH AMERICA: DIGITAL TWIN MARKET SNAPSHOT**

TABLE 77 NORTH AMERICA: DIGITAL TWIN MARKET, BY COUNTRY, 2019–2022 (USD MILLION)

TABLE 78 NORTH AMERICA: DIGITAL TWIN MARKET, BY COUNTRY, 2023–2028 (USD MILLION)

TABLE 79 NORTH AMERICA: DIGITAL TWIN MARKET, BY INDUSTRY, 2019–2022 (USD MILLION)

TABLE 80 NORTH AMERICA: DIGITAL TWIN MARKET, BY INDUSTRY, 2023–2028 (USD MILLION)

TABLE 81 NORTH AMERICA: DIGITAL TWIN MARKET, BY ENTERPRISE SIZE, 2019–2022 (USD MILLION)

TABLE 82 NORTH AMERICA: DIGITAL TWIN MARKET, BY ENTERPRISE SIZE, 2023–2028 (USD MILLION)

**11.3.1 US**

11.3.1.1 Implementation of 3D models and digital technologies across several industries to drive market

**11.3.2 CANADA**

11.3.2.1 Lowest business tax burden to attract digital twin technology providers

**11.3.3 MEXICO**

11.3.3.1 Thriving automotive sector to support market growth

**11.4 EUROPE****11.4.1 EUROPE: RECESSION IMPACT****FIGURE 41 EUROPE: DIGITAL TWIN MARKET SNAPSHOT**

TABLE 83 EUROPE: DIGITAL TWIN MARKET, BY COUNTRY, 2019–2022 (USD MILLION)

TABLE 84 EUROPE: DIGITAL TWIN MARKET, BY COUNTRY, 2023–2028 (USD MILLION)

TABLE 85 EUROPE: DIGITAL TWIN MARKET, BY INDUSTRY, 2019–2022 (USD MILLION)

TABLE 86 EUROPE: DIGITAL TWIN MARKET, BY INDUSTRY, 2023–2028 (USD MILLION)

TABLE 87 EUROPE: DIGITAL TWIN MARKET, BY ENTERPRISE SIZE, 2019–2022 (USD MILLION)

**TABLE 88 EUROPE: DIGITAL TWIN MARKET, BY ENTERPRISE SIZE, 2023–2028 (USD MILLION)****11.4.2 GERMANY**

11.4.2.1 Increasing adoption of inclination of manufacturing firms toward automation to fuel market growth

**11.4.3 FRANCE**

11.4.3.1 Significant contribution of automotive and aerospace industries in technology adoption to drive market

**11.4.4 UK**

11.4.4.1 Steady development of renewable energy infrastructure and adoption of 5G and IoT to boost demand

**11.4.5 REST OF EUROPE****11.5 ASIA PACIFIC****11.5.1 ASIA PACIFIC: RECESSION IMPACT****FIGURE 42 ASIA PACIFIC: DIGITAL TWIN MARKET SNAPSHOT****TABLE 89 ASIA PACIFIC: DIGITAL TWIN MARKET, BY COUNTRY, 2019–2022 (USD MILLION)****TABLE 90 ASIA PACIFIC: DIGITAL TWIN MARKET, BY COUNTRY, 2023–2028 (USD MILLION)****TABLE 91 ASIA PACIFIC: DIGITAL TWIN MARKET, BY INDUSTRY, 2019–2022 (USD MILLION)****TABLE 92 ASIA PACIFIC: DIGITAL TWIN MARKET, BY INDUSTRY, 2023–2028 (USD MILLION)****TABLE 93 ASIA PACIFIC: DIGITAL TWIN MARKET, BY ENTERPRISE SIZE, 2019–2022 (USD MILLION)****TABLE 94 ASIA PACIFIC: DIGITAL TWIN MARKET, BY ENTERPRISE SIZE, 2023–2028 (USD MILLION)****11.5.2 CHINA**

11.5.2.1 Increasing adoption of automation technologies to propel market

**11.5.3 JAPAN**

11.5.3.1 Rising use of IoT devices to create opportunities for digital twin technology providers

**11.5.4 INDIA**

11.5.4.1 Make in India and Digital India initiatives undertaken by governments to drive market

**11.5.5 SOUTH KOREA**

11.5.5.1 Government-led R&D initiatives in IoT technology to boost adoption of digital twins

**11.5.6 REST OF ASIA PACIFIC**



## 11.6 ROW

### 11.6.1 ROW: RECESSION IMPACT

FIGURE 43 ROW: DIGITAL TWIN MARKET SNAPSHOT

TABLE 95 ROW: DIGITAL TWIN MARKET, BY REGION, 2019–2022 (USD MILLION)

TABLE 96 ROW: DIGITAL TWIN MARKET, BY REGION, 2023–2028 (USD MILLION)

TABLE 97 ROW: DIGITAL TWIN MARKET, BY INDUSTRY, 2019–2022 (USD MILLION)

TABLE 98 ROW: DIGITAL TWIN MARKET, BY INDUSTRY, 2023–2028 (USD MILLION)

TABLE 99 ROW: DIGITAL TWIN MARKET, BY ENTERPRISE SIZE, 2019–2022 (USD MILLION)

TABLE 100 ROW: DIGITAL TWIN MARKET, BY ENTERPRISE SIZE, 2023–2028 (USD MILLION)

### 11.6.2 SOUTH AMERICA

11.6.2.1 Surging adoption of IIoT in mining and other industries to drive market

### 11.6.3 MIDDLE EAST

TABLE 101 MIDDLE EAST: DIGITAL TWIN MARKET, BY COUNTRY, 2019–2022 (USD MILLION)

TABLE 102 MIDDLE EAST: DIGITAL TWIN MARKET, BY COUNTRY, 2023–2028 (USD MILLION)

#### 11.6.3.1 Saudi Arabia

11.6.3.1.1 Growing focus of oil & gas companies on safe and efficient operations to boost demand for digital twin solutions

#### 11.6.3.2 UAE

11.6.3.2.1 Inclination of industry players toward smart manufacturing to drive market

#### 11.6.3.3 Rest of Middle East

### 11.6.4 AFRICA

11.6.4.1 Increasing demand for telecom and power supply devices to fuel market growth

## 12 COMPETITIVE LANDSCAPE

### 12.1 OVERVIEW

### 12.2 KEY PLAYER STRATEGIES ADOPTED BY MAJOR PLAYERS

TABLE 103 OVERVIEW OF STRATEGIES ADOPTED BY DIGITAL TWIN PROVIDERS

12.3 FIVE-YEAR REVENUE ANALYSIS OF TOP COMPANIES, 2018–2022

FIGURE 44 SEGMENTAL REVENUE OF KEY PLAYERS, 2018–2022

12.4 MARKET SHARE ANALYSIS, 2022

TABLE 104 DIGITAL TWIN MARKET: DEGREE OF COMPETITION

**FIGURE 45 MARKET SHARE ANALYSIS, 2022****12.5 DIGITAL TWIN MARKET: COMPANY EVALUATION MATRIX, 2022**

## 12.5.1 STARS

## 12.5.2 EMERGING LEADERS

## 12.5.3 PERVASIVE PLAYERS

## 12.5.4 PARTICIPANTS

**FIGURE 46 DIGITAL TWIN MARKET: COMPANY EVALUATION MATRIX, 2022****12.6 DIGITAL TWIN MARKET: COMPANY FOOTPRINT**

## TABLE 105 COMPANY FOOTPRINT

## TABLE 106 INDUSTRY FOOTPRINT

## TABLE 107 ENTERPRISE FOOTPRINT

## TABLE 108 REGION FOOTPRINT

**12.7 DIGITAL TWIN MARKET: STARTUPS/SMES EVALUATION MATRIX, 2022**

## 12.7.1 PROGRESSIVE COMPANIES

## 12.7.2 RESPONSIVE COMPANIES

## 12.7.3 DYNAMIC COMPANIES

## 12.7.4 STARTING BLOCKS

**FIGURE 47 DIGITAL TWIN MARKET: STARTUPS/SMES EVALUATION MATRIX, 2022****12.8 DETAILED LIST OF KEY STARTUPS/SMES**

## TABLE 109 DIGITAL TWIN MARKET: DETAILED LIST OF KEY STARTUPS

## TABLE 110 DIGITAL TWIN MARKET: COMPETITIVE BENCHMARKING OF KEY STARTUPS/SMES

**12.9 COMPETITIVE SCENARIOS AND TRENDS**

## 12.9.1 PRODUCT LAUNCHES

## TABLE 111 DIGITAL TWIN MARKET: PRODUCT LAUNCHES, 2020–2023

## 12.9.2 DEALS

## TABLE 112 DIGITAL TWIN MARKET: DEALS, 2020–2023

## 12.9.3 OTHERS

## TABLE 113 DIGITAL TWIN MARKET: OTHERS, 2020–2023

**13 COMPANY PROFILES**

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

**13.1 KEY PLAYERS**

## 13.1.1 GENERAL ELECTRIC

## TABLE 114 GENERAL ELECTRIC: BUSINESS OVERVIEW

## FIGURE 48 GENERAL ELECTRIC: COMPANY SNAPSHOT

TABLE 115 GENERAL ELECTRIC: PRODUCTS/SOLUTIONS/SERVICES OFFERED

13.1.2 MICROSOFT

TABLE 116 MICROSOFT: BUSINESS OVERVIEW

FIGURE 49 MICROSOFT: COMPANY SNAPSHOT

TABLE 117 MICROSOFT: PRODUCTS/SOLUTIONS/SERVICES OFFERED

13.1.3 SIEMENS

TABLE 118 SIEMENS: BUSINESS OVERVIEW

FIGURE 50 SIEMENS: COMPANY SNAPSHOT

TABLE 119 SIEMENS: PRODUCTS/SOLUTIONS/SERVICES OFFERED

13.1.4 AMAZON WEB SERVICES, INC. (AWS)

TABLE 120 AMAZON WEB SERVICES, INC.: BUSINESS OVERVIEW

FIGURE 51 AMAZON WEB SERVICES, INC.: COMPANY SNAPSHOT

TABLE 121 AMAZON WEB SERVICES, INC.: PRODUCTS/SOLUTIONS/SERVICES OFFERED

13.1.5 DASSAULT SYST?MES

TABLE 122 DASSAULT SYST?MES: BUSINESS OVERVIEW

FIGURE 52 DASSAULT SYST?MES: COMPANY SNAPSHOT

TABLE 123 DASSAULT SYST?MES: PRODUCTS/SOLUTIONS/SERVICES OFFERED

13.1.6 ANSYS, INC.

TABLE 124 ANSYS, INC.: BUSINESS OVERVIEW

FIGURE 53 ANSYS, INC.: COMPANY SNAPSHOT

TABLE 125 ANSYS, INC.: PRODUCTS/SOLUTIONS/SERVICES OFFERED

13.1.7 IBM CORPORATION

TABLE 126 IBM CORPORATION: BUSINESS OVERVIEW

FIGURE 54 IBM CORPORATION: COMPANY SNAPSHOT

TABLE 127 IBM CORPORATION: PRODUCTS/SOLUTIONS/SERVICES OFFERED

13.1.8 PTC

TABLE 128 PTC: BUSINESS OVERVIEW

FIGURE 55 PTC: COMPANY SNAPSHOT

TABLE 129 PTC: PRODUCTS/SOLUTIONS/SERVICES OFFERED

13.1.9 SAP SE

TABLE 130 SAP SE: BUSINESS OVERVIEW

FIGURE 56 SAP SE: COMPANY SNAPSHOT

TABLE 131 SAP SE: PRODUCTS/SOLUTIONS/SERVICES OFFERED

13.1.10 ORACLE

TABLE 132 ORACLE: BUSINESS OVERVIEW

FIGURE 57 ORACLE: COMPANY SNAPSHOT

TABLE 133 ORACLE: PRODUCTS/SOLUTIONS/SERVICES OFFERED

13.1.11 ROBERT BOSCH GMBH

TABLE 134 ROBERT BOSCH GMBH: BUSINESS OVERVIEW

FIGURE 58 ROBERT BOSCH GMBH: COMPANY SNAPSHOT

TABLE 135 ROBERT BOSCH GMBH: PRODUCTS/SOLUTIONS/SERVICES OFFERED

13.2 OTHER KEY PLAYERS

13.2.1 EMERSON ELECTRIC CO.

13.2.2 ABB

13.2.3 HONEYWELL INTERNATIONAL INC.

13.2.4 SCHNEIDER ELECTRIC

13.2.5 NAVVIS

13.2.6 DNV AS

13.2.7 AUTODESK INC.

13.2.8 ANDRITZ AG

13.2.9 SOFTWARE AG

13.2.10 BENTLEY SYSTEMS, INCORPORATED

13.2.11 RIVER LOGIC, INC.

13.2.12 ALTAIR ENGINEERING INC.

13.2.13 JOHNSON CONTROLS

13.2.14 NSTREAM

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

## **14 ADJACENT AND RELATED MARKETS**

14.1 INDUSTRIAL ROBOTICS MARKET

14.2 STUDY LIMITATIONS

14.3 INDUSTRIAL ROBOTICS MARKET, BY PAYLOAD

FIGURE 59 INDUSTRIAL ROBOTICS WITH PAYLOAD CAPACITY RANGING OF 16.01 TO 60.00 KG TO WITNESS HIGHEST CAGR DURING FORECAST PERIOD

TABLE 136 INDUSTRIAL ROBOTICS MARKET, BY PAYLOAD, 2019–2022 (USD MILLION)

TABLE 137 INDUSTRIAL ROBOTICS MARKET, BY PAYLOAD, 2023–2028 (USD MILLION)

TABLE 138 INDUSTRIAL ROBOTICS MARKET, BY PAYLOAD, 2019–2022 (THOUSAND UNITS)

TABLE 139 INDUSTRIAL ROBOTICS MARKET, BY PAYLOAD, 2023–2028 (THOUSAND UNITS)

14.4 UP TO 16.00 KG

14.4.1 HIGH ACCURACY AND FLEXIBILITY OF ROBOTS TO DRIVE DEMAND IN

## FOOD & BEVERAGES AND AUTOMOTIVE VERTICALS

### TABLE 140 TYPES OF INDUSTRIAL ROBOTS WITH UP TO 16.00 KG PAYLOAD CAPACITY

#### 14.5 16.01–60.00 KG

##### 14.5.1 AUTOMOTIVE INDUSTRY TO OFFER LUCRATIVE OPPORTUNITIES FOR PLAYERS

### TABLE 141 TYPES OF INDUSTRIAL ROBOTS WITH 16.01–60.00 KG PAYLOAD CAPACITY

#### 14.6 60.01–225.00 KG

##### 14.6.1 GROWING ADOPTION OF ROBOTS TO AUTOMATE ASSEMBLING AND PACKAGING OF CONSUMER ELECTRONICS TO DRIVE MARKET

### TABLE 142 TYPES OF INDUSTRIAL ROBOTS WITH 60.01–225.00 KG PAYLOAD CAPACITY

#### 14.7 MORE THAN 225.00 KG

##### 14.7.1 STRONG FOCUS ON IMPROVING PRODUCTIVITY AND WORKPLACE SAFETY TO ACCELERATE MARKET GROWTH

### TABLE 143 TYPES OF INDUSTRIAL ROBOTS WITH MORE THAN 225.00 KG PAYLOAD CAPACITY

## **15 APPENDIX**

### 15.1 INSIGHTS FROM INDUSTRY EXPERTS

### 15.2 DISCUSSION GUIDE

### 15.3 KNOWLEDGESTORE: MARKET SAND MARKETS' SUBSCRIPTION PORTAL

### 15.4 AVAILABLE CUSTOMIZATIONS

### 15.5 RELATED REPORTS

### 15.6 AUTHOR DETAILS

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