Global Vertical Take-off and Landing (VTOL) UAV Market Research Report Information by Platform (Commercial and Military), Type (Fixed-Wing and Multi-rotor), Propulsion System (Electric, Solar, Hybrid, and Others) and Region–Forecast till 2023

Market Scenario
Unmanned Aerial Vehicle (UAV), also known as drone or remotely piloted vehicle, is described as a type of aerial vehicle that can operate without any human or pilot interference. The UAVs are predominantly used for military purposes such as surveillance, reconnaissance, and combat, and currently, a few countries are planning on replacing their manned forces with that of the UAVs.

The global Vertical Take-Off and Landing (VTOL) UAV market are majorly dominated by the military platform due to its wider applicability in a range of military applications. After various successful applications and over a period of growth and innovations in the military segment, there has been a significant shift and increase of market dynamics towards an extensive use of UAVs in the commercial sector. Government agencies, industries, and other organizations are all actively gauging the prospect for UAVs to disrupt the market and create new and innovative business models. Of late, drones are being largely used for various industrial applications, including aviation, construction, mining, oil & gas, telecom, and logistics sectors. The usage of drones is driven by its benefits over their conventional manual inspection counterparts.

Several major strategic developments have been undertaken on the VTOL UAV front, which have high growth potential. The key players in the market have invested extensively in product innovations and technological advancements. For instance, Northrop Grumman signed a contract with the U.S. Navy, to develop a VTOL UAV system. The major drivers that propel the growth of this market are the increasing security concerns, focus on enhancing UAV propulsion systems, participation by aerospace companies, and rising adoption of UAVs in the commercial sector.

Market Segmentation
In the recent years, the global VTOL UAV market witnessed a number of developments, particularly in the military sector. This growth is owed to the emergence of various new technologies on the unmanned system front. As the usage of unmanned systems has made its way to commercial applications, every country, lately, is planning on increasing its expenses on the development of VTOL UAV. For example, it was reported that Israel Aerospace Industries and the South Korea-based Hankuk Carbon collaborated for the development of hybrid propulsion systems, which increase the endurance and payload carrying capacity of VTOL UAVs.

Based on type, multi rotor drones are expected to grow at a faster pace as compared to their fixed wing counterparts. Multi rotor drones have various benefits such as the ease of control and use, among others, they have short flight times and lesser payload capacity when compared to the fixed-wing drones. However, its ability to hover makes it apt for operating in confined areas. Moreover, camera control is also comparatively easier. In addition, several new startups and established companies are keen on developing multi-rotor drones.

On the basis of platform, the military segment accounted for a higher share than commercial segment in 2017. Countries such as the U.S., the U.K, Germany, China, and France are engaging in high R&D investments on VTOL UAVs, primarily for the provision of security services and surveillance. Market players are focusing on making these unmanned systems smaller and lighter, so that they are more feasible, approachable, and effective.

Based on region, North America accounted for the largest share in the global market in year 2017 as the U.S. Navy is engaged in the development of VTOL UAVs, which can be integrated with the naval fleet for sea-based surveillance. In addition, the region is engaged in the development of multipurpose VTOL UAVs for various land-based military operations, to provide strong support to the armed forces. It leads the global market in terms of expenditure and technological advancements and has deployed several drones. The U.S. generates a very high demand for drones used for surveillance purposes.

Key Players

The key players in the global vertical take-off and landing UAV market are Northrop Grumman Corporation (U.S.), DJI Innovations (China), Lockheed Martin Corporation (U.S.), Israel Aerospace Industries Ltd. (Israel), Schiebel Elektronische Gerate GmbH (Austria), AeroVironment, Inc. (U.S.), Saab Group (Sweden), Textron Inc. (U.S.), The Boeing Company (U.S.), and Turkish Aerospace Industries, Inc. (Turkey).
1 Executive Summary

2 Scope of the Report
  2.1 Market Definition
  2.2 Scope of the Study
  2.2.1 Definition
  2.2.2 Research Objective
  2.2.3 Assumptions
  2.2.4 Limitations
  2.3 Research Process
  2.3.1 Primary Research
  2.3.2 Secondary Research
  2.4 Market size Estimation
  2.5 Forecast Model

3 Market Landscape
  3.1 Porter’s Five Forces Analysis
    3.1.1 Threat of New Entrants
    3.1.2 Bargaining power of buyers
    3.1.3 Bargaining power of suppliers
    3.1.4 Threat of substitutes
    3.1.5 Segment rivalry
  3.2 Value Chain/Supply Chain Analysis

4 Market Dynamics
  4.1 Introduction
  4.2 Market Drivers
  4.3 Market Restraints
  4.4 Market Opportunities
  4.5 Market Trends

5 Global Vertical Take-off and Landing UAV Market, By Platform
  5.1 Introduction
  5.2 Commercial
    5.2.1 Market Estimates & Forecast, 2018-2023
    5.2.2 Market Estimates & Forecast by Region, 2018-2023
  5.3 Military
    5.3.1 Market Estimates & Forecast, 2018-2023
    5.3.2 Market Estimates & Forecast by Region, 2018-2023

6 Global Vertical Take-off and Landing UAV Market, By Type
  6.1 Introduction
  6.2 Fixed-Wing
    6.2.1 Market Estimates & Forecast, 2018-2023
    6.2.2 Market Estimates & Forecast by Region, 2018-2023
  6.3 Multirotor
    6.3.1 Market Estimates & Forecast, 2018-2023
    6.3.2 Market Estimates & Forecast by Region, 2018-2023

7 Global Vertical Take-off and Landing UAV Market, By Propulsion
  6.1 Introduction
  6.2 Electric
    6.2.1 Market Estimates & Forecast, 2018-2023
    6.2.2 Market Estimates & Forecast by Region, 2018-2023
6.3 Solar
6.3.1 Market Estimates & Forecast, 2018-2023
6.3.2 Market Estimates & Forecast by Region, 2018-2023

6.4 Hybrid
6.4.1 Market Estimates & Forecast, 2018-2023
6.4.2 Market Estimates & Forecast by Region, 2018-2023

6.5 Others
6.5.1 Market Estimates & Forecast, 2018-2023
6.5.2 Market Estimates & Forecast by Region, 2018-2023

8 Global Vertical Take-off and Landing UAV Market, By Region
8.1 Introduction
8.2 North America
8.2.1 Market Estimates & Forecast, 2018-2023
8.2.2 Market Estimates & Forecast by Platform, 2018-2023
8.2.3 Market Estimates & Forecast by Type, 2018-2023
8.2.4 Market Estimates & Forecast by Propulsion, 2018-2023
8.2.5 U.S.
8.2.5.1 Market Estimates & Forecast, 2018-2023
8.2.5.2 Market Estimates & Forecast by Platform, 2018-2023
8.2.5.3 Market Estimates & Forecast by Type, 2018-2023
8.2.5.4 Market Estimates & Forecast by Propulsion, 2018-2023
8.2.6 Canada
8.2.6.1 Market Estimates & Forecast, 2018-2023
8.2.6.2 Market Estimates & Forecast by Platform, 2018-2023
8.2.6.3 Market Estimates & Forecast by Type, 2018-2023
8.2.6.4 Market Estimates & Forecast by Propulsion, 2018-2023

8.3 Europe
8.3.1 Market Estimates & Forecast, 2018-2023
8.3.2 Market Estimates & Forecast by Platform, 2018-2023
8.3.3 Market Estimates & Forecast by Type, 2018-2023
8.3.4 Market Estimates & Forecast by Propulsion, 2018-2023
8.3.5 U.K
8.3.5.1 Market Estimates & Forecast, 2018-2023
8.3.5.2 Market Estimates & Forecast by Platform, 2018-2023
8.3.5.3 Market Estimates & Forecast by Type, 2018-2023
8.3.5.4 Market Estimates & Forecast by Propulsion, 2018-2023
8.3.6 Germany
8.3.6.1 Market Estimates & Forecast, 2017-2023
8.3.6.2 Market Estimates & Forecast by Platform, 2018-2023
8.3.6.3 Market Estimates & Forecast by Type, 2018-2023
8.3.6.4 Market Estimates & Forecast by Propulsion, 2018-2023
8.3.7 France
8.3.7.1 Market Estimates & Forecast, 2017-2023
8.3.7.2 Market Estimates & Forecast by Platform, 2018-2023
8.3.7.3 Market Estimates & Forecast by Type, 2018-2023
8.3.7.4 Market Estimates & Forecast by Propulsion, 2018-2023
8.3.8 Spain
8.3.8.1 Market Estimates & Forecast, 2017-2023
8.3.9.1 Market Estimates & Forecast, 2018-2023
8.3.9.2 Market Estimates & Forecast by Platform, 2018-2023
8.3.9.3 Market Estimates & Forecast by Type, 2018-2023
8.3.9.4 Market Estimates & Forecast by Propulsion, 2018-2023

8.4 Asia Pacific
8.4.1 Market Estimates & Forecast, 2018-2023
8.4.2 Market Estimates & Forecast by Platform, 2018-2023
8.4.3 Market Estimates & Forecast by Type, 2018-2023
8.4.4 Market Estimates & Forecast by Propulsion, 2018-2023
8.4.5 China
8.4.5.1 Market Estimates & Forecast, 2018-2023
8.4.5.2 Market Estimates & Forecast by Platform, 2018-2023
8.4.5.3 Market Estimates & Forecast by Type, 2018-2023
8.4.5.4 Market Estimates & Forecast by Propulsion, 2018-2023
8.4.6 Australia
8.4.6.1 Market Estimates & Forecast, 2018-2023
8.4.6.2 Market Estimates & Forecast by Platform, 2018-2023
8.4.6.3 Market Estimates & Forecast by Type, 2018-2023
8.4.6.4 Market Estimates & Forecast by Propulsion, 2018-2023
8.4.7 Japan
8.4.7.1 Market Estimates & Forecast, 2018-2023
8.4.7.2 Market Estimates & Forecast by Platform, 2018-2023
8.4.7.3 Market Estimates & Forecast by Type, 2018-2023
8.4.7.4 Market Estimates & Forecast by Propulsion, 2018-2023
8.4.8 Rest of Asia-Pacific
8.4.8.1 Market Estimates & Forecast, 2018-2023
8.4.8.2 Market Estimates & Forecast by Platform, 2018-2023
8.4.8.3 Market Estimates & Forecast by Type, 2018-2023
8.4.8.4 Market Estimates & Forecast by Propulsion, 2018-2023

8.5 Middle East & Africa
8.5.1 Market Estimates & Forecast, 2018-2023
8.5.2 Market Estimates & Forecast by Platform, 2018-2023
8.5.3 Market Estimates & Forecast by Type, 2018-2023
8.5.4 Market Estimates & Forecast by Propulsion, 2018-2023
8.5.5 Israel
8.5.5.1 Market Estimates & Forecast, 2018-2023
8.5.5.2 Market Estimates & Forecast by Platform, 2018-2023
8.5.5.3 Market Estimates & Forecast by Type, 2018-2023
8.5.5.4 Market Estimates & Forecast by Propulsion, 2018-2023
8.5.6 Saudi Arabia
8.5.6.1 Market Estimates & Forecast, 2018-2023
8.5.6.2 Market Estimates & Forecast by Platform, 2018-2023
8.5.6.3 Market Estimates & Forecast by Type, 2018-2023
8.5.6.4 Market Estimates & Forecast by Propulsion, 2018-2023
8.5.7 United Arab Emirates
8.5.7.1 Market Estimates & Forecast, 2018-2023
8.5.7.2 Market Estimates & Forecast by Platform, 2018-2023
8.5.7.3 Market Estimates & Forecast by Type, 2018-2023
8.5.7.4 Market Estimates & Forecast by Propulsion, 2018-2023
8.5.8 Middle East & Africa
8.5.8.1 Market Estimates & Forecast, 2018-2023
8.5.8.2 Market Estimates & Forecast by Platform, 2018-2023
8.5.8.3 Market Estimates & Forecast by Type, 2018-2023
8.5.8.4 Market Estimates & Forecast by Propulsion, 2018-2023
8.6 Latin America
8.6.1 Market Estimates & Forecast, 2018-2023
8.6.2 Market Estimates & Forecast by Platform, 2018-2023
8.6.3 Market Estimates & Forecast by Type, 2018-2023
8.5.4 Market Estimates & Forecast by Propulsion, 2018-2023
8.7 Rest of the World
8.7.1 Market Estimates & Forecast, 2018-2023
8.7.2 Market Estimates & Forecast by Platform, 2018-2023
8.7.3 Market Estimates & Forecast by Type, 2018-2023
8.7.4 Market Estimates & Forecast by Propulsion, 2018-2023
9 Competitive Landscape
10 Company Profile
10.1 Northrop Grumman Corporation (U.S.)
10.1.1 Company Overview
10.1.2 Product/Services Offering
10.1.3 Financial Overview
10.1.4 Key Developments
10.1.5 Strategy
10.1.6 SWOT Analysis
10.2 DJI Innovations (China)
10.2.1 Company Overview
10.2.2 Product/Services Offering
10.2.3 Financial Overview
10.2.4 Key Developments
10.2.5 Strategy
10.2.6 SWOT Analysis
10.3 Lockheed Martin Corporation (U.S.)
10.3.1 Company Overview
10.3.2 Product/Services Offering
10.3.3 Financial Overview
10.3.4 Key Developments
10.3.5 Strategy
10.3.6 SWOT Analysis
10.4 Israel Aerospace Industries Ltd. (Israel)
10.4.1 Company Overview
10.4.2 Product/Services Offering
10.4.3 Financial Overview
10.4.4 Key Developments
Table 1 Global Vertical Take-off and Landing UAV Market: By Region, 2018-2023
Table 2 North America Vertical Take-Off and Landing UAV Market: By Country, 2018-2023
Table 3 Europe Vertical Take-Off and Landing UAV Market: By Country, 2018-2023
Table 4 Asia Pacific Vertical Take-Off and Landing UAV Market: By Country, 2018-2023
Table 5 RoW Vertical Take-Off and Landing UAV Market: By Country, 2018-2023
Table 6 Global Vertical Take-Off and Landing UAV Market by Platform By Regions, 2018-2023
Table 7 North America Vertical Take-Off and Landing UAV Market by Platform: By Country, 2018-2023
Table 8 Europe Vertical Take-Off and Landing UAV Market by Platform: By Country, 2018-2023
Table 9 Asia Pacific Vertical Take-Off and Landing UAV Market by Platform: By Country, 2018-2023
Table 10 RoW Vertical Take-Off and Landing UAV Market by Platform: By Country, 2018-2023
Table 10 Global Vertical Take-Off and Landing UAV Market, by Type, By Regions, 2018-2023
Table 12 North America Vertical Take-Off and Landing UAV Market, by Type, By Country, 2018-2023
Table 13 Europe Vertical Take-Off and Landing UAV Market, by Type, By Country, 2018-2023
Table 14 Asia Pacific Vertical Take-Off and Landing UAV Market, by Type, By Country, 2018-2023
Table 15 RoW Vertical Take-Off and Landing UAV Market, by Type, By Country, 2018-2023
Table 16 Global Vertical Take-Off and Landing UAV Market, by Propulsion, By Regions, 2018-2023
Table 17 North America Vertical Take-Off and Landing UAV Market, by Propulsion, By Country, 2018-2023
Table 18 Europe Vertical Take-Off and Landing UAV Market, by Propulsion, By Country, 2018-2023
Table 19 Asia Pacific Vertical Take-Off and Landing UAV Market, by Propulsion, By Country, 2018-2023
Table 20 RoW Vertical Take-Off and Landing UAV Market, by Propulsion, By Country, 2018-2023
Table 21 Global Vertical Take-Off and Landing UAV Market: By Region, 2018-2023
Table 22 Global Vertical Take-Off and Landing UAV Market: By Region, 2018-2023
Table 23 Global Vertical Take-Off and Landing UAV Market: By Region, 2018-2023
Table 24 North America Vertical Take-Off and Landing UAV Market, By Country
Table 25 North America Vertical Take-Off and Landing UAV Market, by Platform
Table 26 North America Vertical Take-Off and Landing UAV Market, By Type
Table 27 North America Vertical Take-Off and Landing UAV Market, By Propulsion
Table 28 Europe: Vertical Take-Off and Landing UAV Market, By Country
Table 29 Europe: Vertical Take-Off and Landing UAV Market, by Platform
Table 30 Europe: Vertical Take-Off and Landing UAV Market, By Type
Table 31 Europe: Vertical Take-Off and Landing UAV Market, By Propulsion
Table 32 Asia Pacific: Vertical Take-Off and Landing UAV Market, By Country
Table 33 Asia Pacific: Vertical Take-Off and Landing UAV Market, by Platform
Table 34 Asia Pacific: Vertical Take-Off and Landing UAV Market, By Type
Table 35 Asia Pacific: Vertical Take-Off and Landing UAV Market, By Propulsion
Table 36 RoW: Vertical Take-Off and Landing UAV Market, By Region
Table 37 RoW Vertical Take-Off and Landing UAV Market, by Platform
Table 38 RoW Vertical Take-Off and Landing UAV Market, By Type
Table 39 RoW Vertical Take-Off and Landing UAV Market, By Propulsion

List of Figures

FIGURE 1 RESEARCH PROCESS OF MRFR
FIGURE 2 TOP DOWN & BOTTOM UP APPROACH
FIGURE 3 MARKET DYNAMICS
FIGURE 4 IMPACT ANALYSIS: MARKET DRIVERS
FIGURE 5 IMPACT ANALYSIS: MARKET RERAINTS
FIGURE 6 PORTER’S FIVE FORCES ANALYSIS
FIGURE 7 VALUE CHAIN ANALYSIS
FIGURE 8 GLOBAL VERTICAL TAKE-OFF AND LANDING UAV MARKETSHARE, BY PLATFORM, 2016 (%)
FIGURE 9 GLOBAL VERTICAL TAKE-OFF AND LANDING UAV MARKET, BY PLATFORM, 2015-2023 (USD MILLION)
FIGURE 10 GLOBAL VERTICAL TAKE-OFF AND LANDING UAV MARKETSHARE, BY TYPE, 2016 (%)
FIGURE 11 GLOBAL VERTICAL TAKE-OFF AND LANDING UAV MARKET, BY TYPE, 2015-2023 (USD MILLION)
FIGURE 12 GLOBAL VERTICAL TAKE-OFF AND LANDING UAV MARKET SHARE (%), BY REGION, 2016
FIGURE 13 GLOBAL VERTICAL TAKE-OFF AND LANDING UAV MARKET, BY REGION, 2015-2023 (USD MILLION)
FIGURE 14 NORTH AMERICA VERTICAL TAKE-OFF AND LANDING UAV MARKETSHARE (%), 2016
FIGURE 15 NORTH AMERICA VERTICAL TAKE-OFF AND LANDING UAV MARKETBY COUNTRY, 2015-2023 (USD MILLION)
FIGURE 16 EUROPE VERTICAL TAKE-OFF AND LANDING UAV MARKETSHARE (%), 2016
FIGURE 17 EUROPE VERTICAL TAKE-OFF AND LANDING UAV MARKETBY COUNTRY, 2015-2023 (USD MILLION)
FIGURE 18 ASIA PACIFIC VERTICAL TAKE-OFF AND LANDING UAV MARKETSHARE (%), 2016
FIGURE 19 ASIA PACIFIC VERTICAL TAKE-OFF AND LANDING UAV MARKETBY COUNTRY, 2015-2023 (USD MILLION)
FIGURE 20 REST OF THE WORLD VERTICAL TAKE-OFF AND LANDING UAV MARKETSHARE (%), 2016
FIGURE 21 REST OF THE WORLD VERTICAL TAKE-OFF AND LANDING UAV MARKETBY COUNTRY, 2015-2023 (USD MILLION)