AEROSPACE AND DEFENSE

UNITED STATES AND GLOBAL PERSPECTIVE

PHOTO BY KEVIN HACKERT ON UNSPLASH

INDUSTRY REPORT | NOVEMBER 2023

ACCELERATED MFG. BROKERS
THE MANUFACTURING M&A EXPERTS

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1. EXECUTIVE SUMMARY

The global A&D market is expected to advance at a CAGR of 6.15% between 2023 and 2030 to reach US$1,300 billion. Whereas, The US aerospace and defense market was USD 436 billion in 2022 and by a CAGR of around 2.37% during the forecast period (2021-2030) it will be touching USD 550 billion.

Aerospace and defense industry trends in 2023 include a shift towards regional supply chain sourcing, increased focus on digital transformation and AI integration, development of advanced defense equipment, adoption of 5G connectivity and immersive technologies, emphasis on cybersecurity, growing use of additive manufacturing, utilization of big data and analytics, and efforts to decarbonize with sustainable aviation fuels and new propulsion technologies.

The aerospace and defense industry's SWOT analysis reveals that its strengths lie in the USA's commitment to innovation, well-developed infrastructure, government support, strategic alliances, and global exports, while weaknesses include high costs, dependence on government contracts, the need for constant R&D, supply chain vulnerabilities, and capacity issues. Opportunities include emerging markets, demand for unmanned systems, commercial space sector growth, AI advancements, and sustainable aviation fuels, while threats encompass government defense budget fluctuations, external factors like pandemics and geopolitical conflicts, flight cancellations, rising jet fuel prices, a shortage of skilled engineers, and increased competition from other nations.

Raytheon Technologies, Boeing, and Lockheed Martin are the leading players in the Aerospace and Defence industry with 2022 Annual revenue in million USD of 67,074, 66,608, and 65,984 respectively.

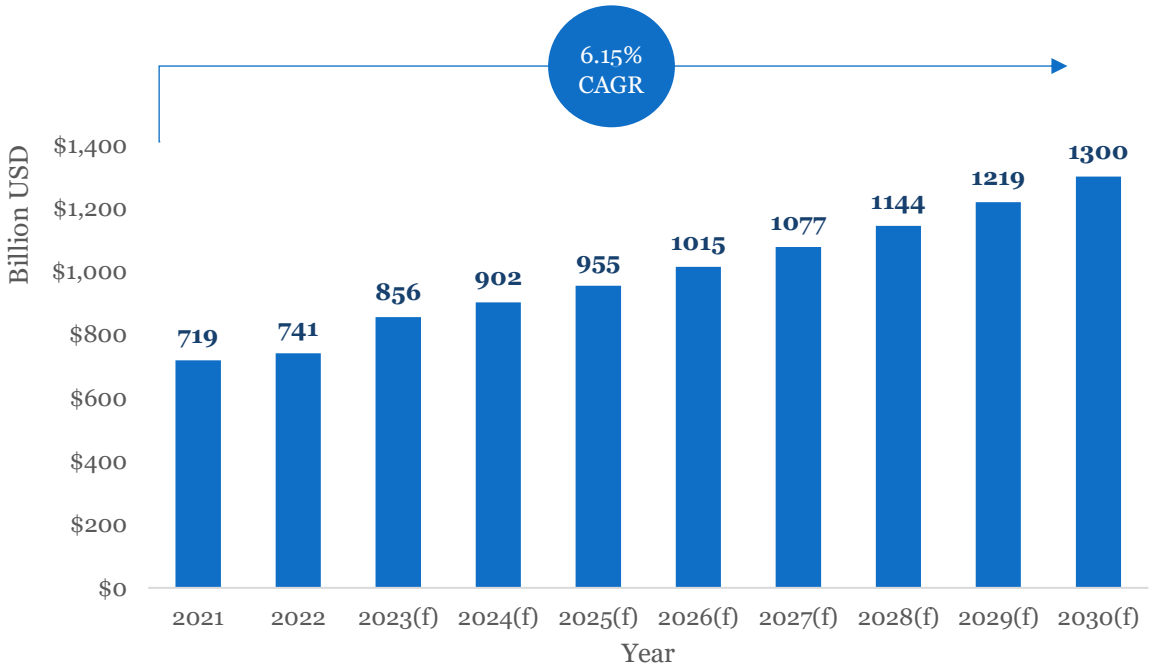
Recent mergers and acquisitions (M&A) in the Aerospace and Defense industry include deals such as AviLease acquiring Pembroke Group for USD 3.6 billion, BAE Systems acquiring Ball Aerospace for USD 5.55 billion, HEICO Corporation acquiring Wencor Group for USD 2.05 billion, Safran SA acquiring Collins Aerospace for USD 1.80 billion, Thales SA acquiring Cobham Aerospace Communications for USD 1.10 billion, and L3Harris Technologies completing the acquisition of Aerojet Rocketdyne for USD 5.12 billion.

2. MARKET OVERVIEW

2.1 Global Aerospace and Defense Industry

The global A&D market is expected to advance at a CAGR of 6.15% between 2023 and 2030 to reach US$1,300 billion. A&D is a highly regulated and complex industry that involves the design, development, manufacture, and maintenance of aircraft, spacecraft, missiles, and other military equipment. The industry is constantly evolving. Technological advancement, increasing demand for commercial aircraft, and rising defense spending are expected to be the key growth drivers.

Figure 1: Global Aerospace and Defense Market Size



Source: *PWC and Aranca Research*[1]

The A&D industry reported revenues of $741 billion in 2022, just 3% higher than 2021, and $67 billion in operating profit, an increase of 8%. The modest improvement in revenue fell short of expectations as growing demand in end markets ran into production constraints due to supply chain and labor challenges. Industry performance remained below the pre-pandemic record levels. Industry revenues were 4% below the 2019 record of $780 billion, while industry operating profit was 18% below the 2018 record of $82 billion. These results, translated into US dollars, may slightly understate the strength of the recovery as the USD was about 12% higher against the euro and British pound in 2022 than in 2021, lowering the translated results of international companies.

Table: Key industry metrics

	2022	2021	Change
Revenue	US$741 billion	$714b	3%
Operating profit	$67b	$62b	8%
Operating margin	9.10%	8.70%	40 bps

Source: PwC analysis

Overall, the global commercial aviation and aerospace industries strove throughout 2022 to respond to an economy drastically altered by war in Europe and to ongoing supply chain and labor force challenges stemming from or exacerbated by the pandemic.

Orders are up at Boeing and Airbus, with a near-record backlog. Airbus delivered 661 aircraft in 2022, a 9% increase over 2021 but 23% below the company's peak production of 863 in 2019. Boeing delivered 480 aircraft, a 41% increase over 2021 as 737 MAX deliveries resumed but still 40% below 2018's record production of 806. Airbus reported 820 net orders in 2022, while Boeing reported 774, pushing the total backlog toward the record level of 12,888 set at the end of 2019. Industry backlog of $720 billion and nearly 12,000 units is more than seven years of production at record-production levels.

Table: Aircraft backlog (US$ billions)

	12/31/22	12/31/21	12/31/20	12/31/19
Boeing	$330	$297	$282	$377
Airbus	$390	$345	$325	$475

Source: The Boeing Co. annual report; Airbus Group annual report

Table: Aircraft backlog (units)

Index	Boeing	Airbus	Total
Net orders	774	820	1,594
Deliveries	480	661	1,141
Backlog at Dec. 31, 2021	4,578	7,239	11,817

Source: The Boeing Co. annual report; Airbus Group annual report

The story of the world's defense industry over the next decade is likely to be one of tremendous growth. Total global military spending rose by 3.7% in real terms in 2022 to a fresh high of $2.24 trillion. The top three spenders in 2022 — the US, China, and Russia — accounted for 56% of the global total. Collectively, the world's top ten defense companies earned $485.5 billion in 2021, with average revenue growth of 7.1%. Revenues of the world's top 100 defense companies likewise climbed for the sixth year in a row.

Despite surging demand, overall revenues for the top 11 defense companies were down 4% year over year. The top six US defense companies reported an aggregate 3% decline. European defense companies all reported revenue increases in local currency. These were more than offset by a roughly 12% increase in the value of the US dollar, resulting in an aggregate 6% decline in revenues as translated into USD. European revenue performance is consistent with increasing defense budgets across Europe, partly attributable to the war in Ukraine. US companies' decline in revenue comes despite a 5% increase in the US DoD budget in FY22 and a 10% increase in FY23. The decrease in revenue is significantly attributable to production constraints associated with supply chain disruptions and labor shortages. [2]

Table: Backlog of defense orders (US$ billions)

	12/31/22	12/31/21
Lockheed Martin	$150	$135
Northrop Grumman	$79	$76
General Dynamics (excl. Gulfstream)	$72	$71
Raytheon	$69	$63
Boeing Defense, Space & Security	$54	$60
BAE Systems	$73	$61
Airbus Defence and Space and Helicopters	$62	$57
Leonardo	$39	$42
Thales	$43	$41
L3Harris	$21	$21
Total	**$662**	**$627**

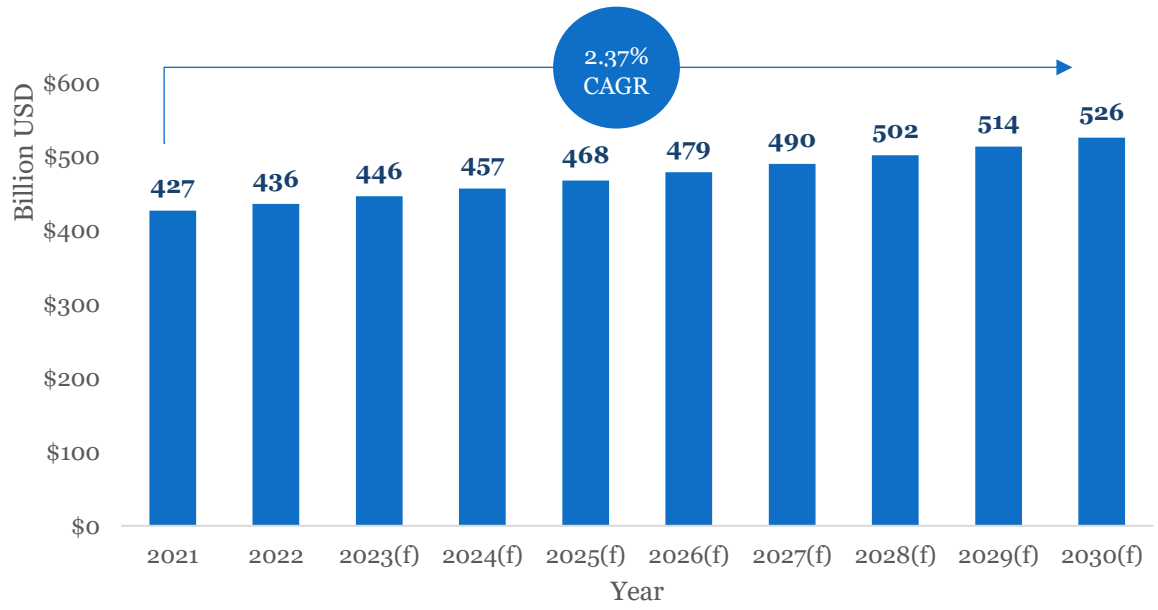
Source: Company reports

2.2 United States Aerospace and Defense Industry

Economic recovery for the A&D industry gained momentum in 2022 on the heels of rising demand for air travel. As passenger traffic gradually returns to pre-pandemic levels, increases in new aircraft and military orders signal continued growth in the approaching year.

The heightened need for advanced defense systems owing to rising geopolitical tensions and proposed defense funding in its 2023 fiscal budget, should enable the aerospace and defense industry to grow substantially. Rising government contracts should benefit prominent players in this space.

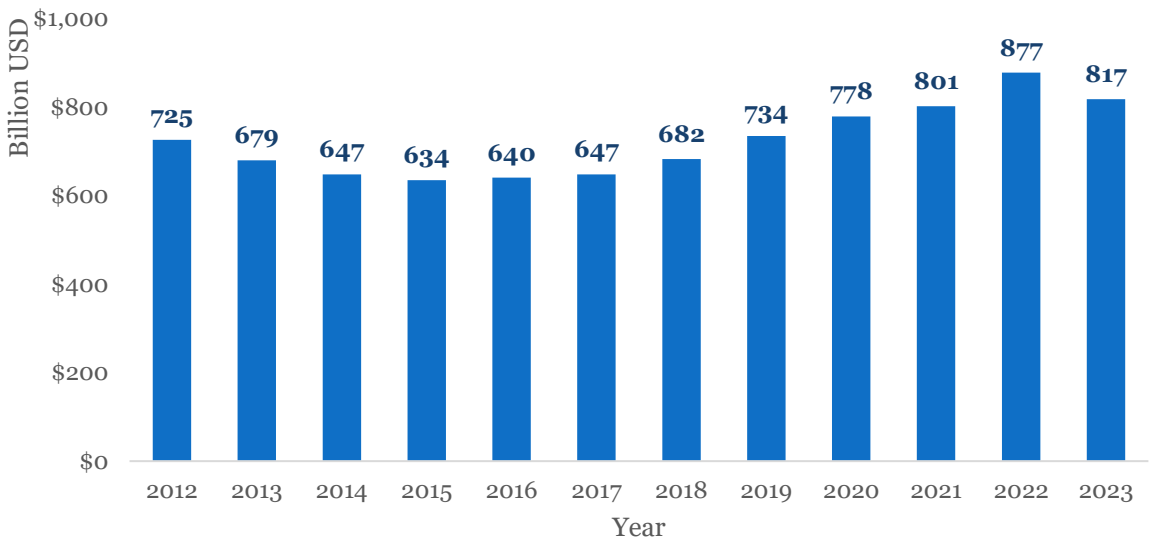
Figure 2: United States Aerospace and Defense Market Size



mordorintelligence.com[3]

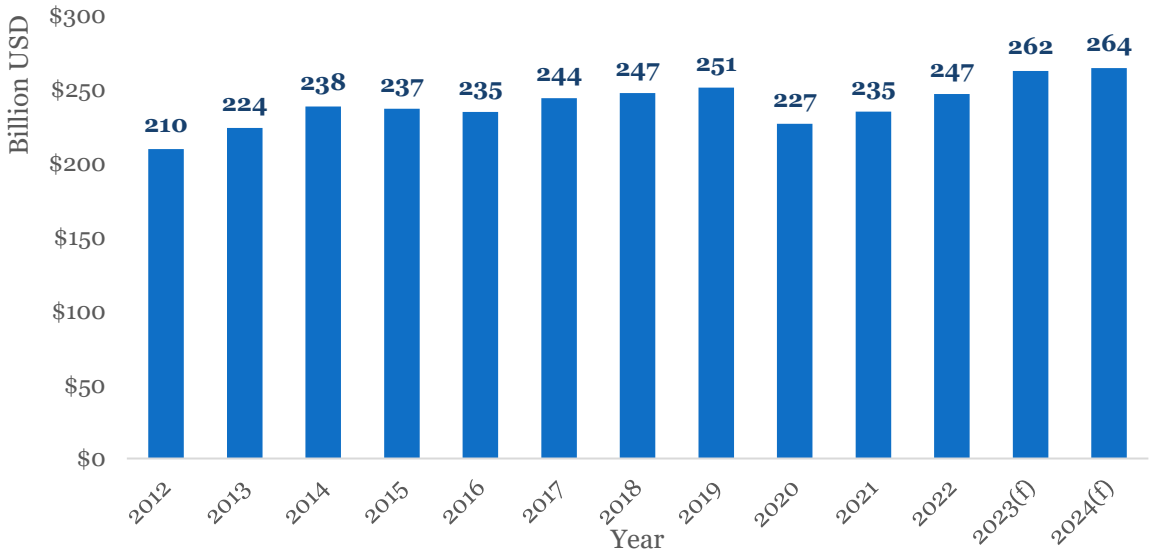
The US aerospace and defense market was USD 427 billion in 2021 and USD 436 billion in 2022 and by a CAGR of around 2.37% during the forecast period (2021-2030) it will be touching USD 550 billion.

Figure 3: United States Defence Spending (2012-2023)



Defense.gov[4]

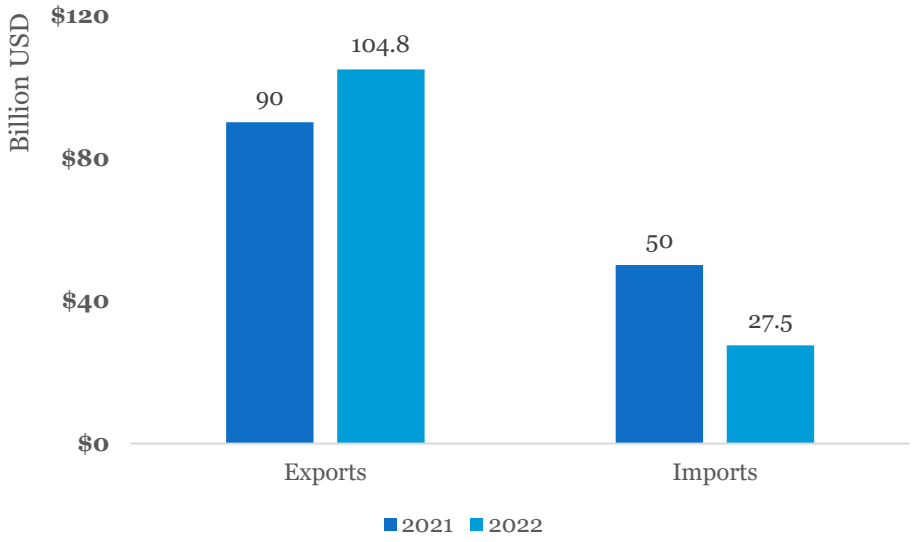
Figure 4: United States Aerospace Product and Parts Manufacturing Industry Revenue



statista.com[5]

It is projected that the revenue of aerospace products and parts manufacturing in the U.S. will amount to approximately 264,5 billion U.S. Dollars by 2024.

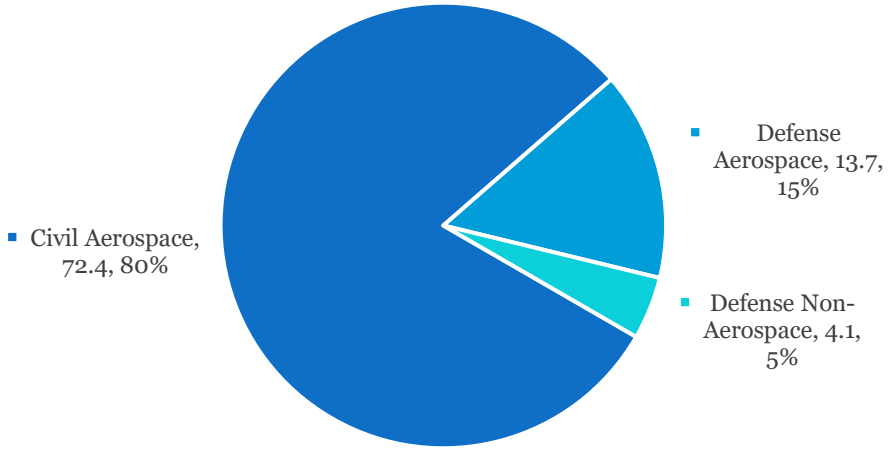
Figure 5: United States Aerospace and Defense Trade



Aia-aerospace.org[6]

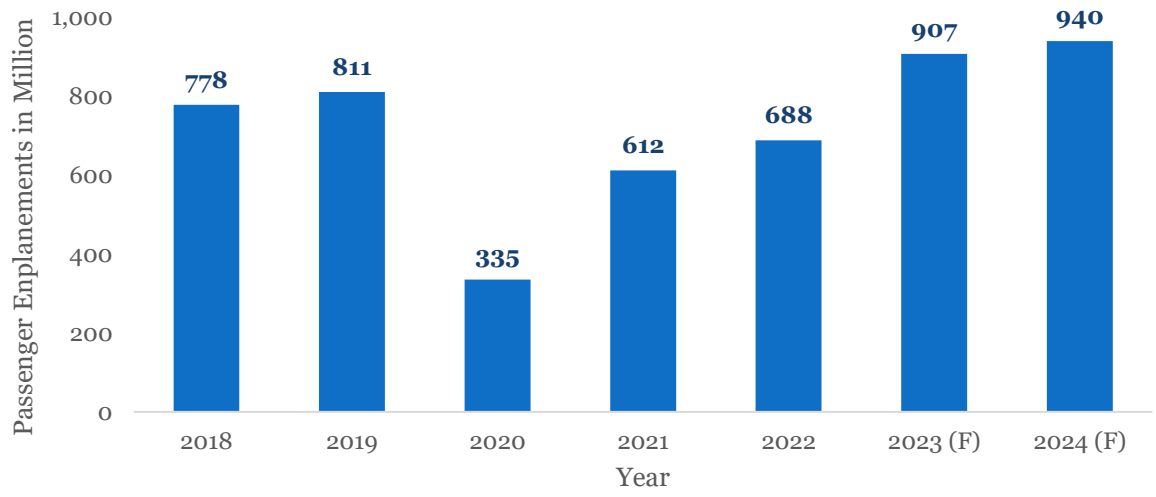
The world wants to buy what the American Aerospace and Defense industry is selling. In 2022, A&D exports rose by 4.4 percent to a total of $104.8 billion. The leading destinations for U.S. A&D exports in 2022 were Canada, France, Germany, the United Kingdom, and Brazil. Whereas, the value of all U.S. A&D industry imports in 2022 totaled $27.5 billion, down 43.8 percent from the previous year. The top origins for U.S. imports in 2022 were France, Canada, the United Kingdom, Germany, and Japan.

Figure 6: United States Aerospace and Defense Exports by Subsector



Aia-aerospace.org[7]

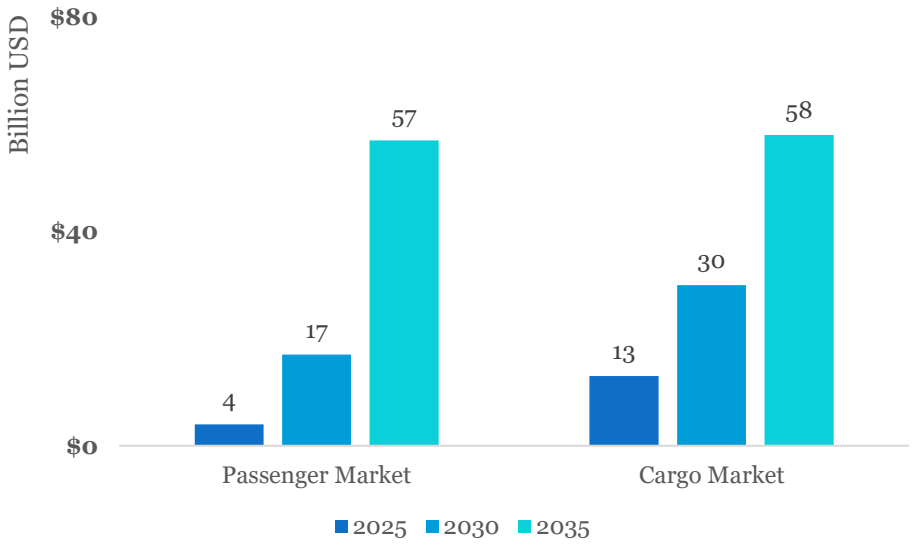
Figure 7: The United States Domestic Air Travel Recovery



Statista.com, Skift Research[8]

U.S. airlines carried nearly 688 million passengers on domestic flights across the United States in 2022. This was an increase from the roughly 612 million domestic passengers carried by U.S. airlines in 2021. It is projected that more than 907 million passengers in 2023 and more than 940 million passengers in 2024 will fly on U.S. airlines, up by 4% from our 2023 estimates.

Figure 8: Global Market for Advanced Air Mobility (AAM)



Aia-aerospace.org[9]

A 2021 joint study between AIA and Deloitte, "Advanced air mobility: Can the United States afford to lose the race?", estimates that the market for Advanced Air Mobility (AAM) vehicles is projected to grow to $115 billion by 2035. These vehicles are likely to revolutionize passenger and cargo travel in the coming decades, and the manufacturer of them is expected to employ more than 280,000 people annually by 2035.

3. A&D INDUSTRY TRENDS

- **Focus on Supply Chain**

The COVID-19 pandemic, workforce shortages, and, most recently, the Russian invasion of Ukraine have exacerbated supply chain complexity for the aerospace and defense industry. Given these challenges, the coming year will likely see an acceleration of the shift from global to regional sourcing, including the exchange of raw materials, parts, and finished A&D goods globally. Most A&D companies are expected to also focus on creating visibility deep into their supply chains to improve supply control and coordination and to better manage third-party risk.[4]

- **Digital Transformation**

Digital technologies and capabilities are expected to increasingly be a source of competitive advantage and, in some cases, a requirement to compete for specific government programs. With new entrants disrupting the market, even on legacy platform programs, aerospace and defense companies will likely increasingly leverage digital thread and smart factories to streamline the design and development of products and achieve improved efficiencies.[4]

- **AI in Military and Defense**

The integration of Artificial Intelligence (AI) in military and defense operations is transforming intelligence, surveillance, and reconnaissance (ISR) missions by enhancing computational reasoning. Furthermore, defense manufacturers are embracing digital twin technology and machine learning to facilitate the testing of new military product versions and to enable predictive maintenance for military assets. [21] A notable trend is the emergence of startups focused on developing self-organizing military AI systems that collaborate cohesively to achieve strategic objectives, often utilizing swarm computing methodologies. For instance, a US-based startup Rebellion builds mission-focused AI products for the defense and security sectors.

- **Advanced Defense Equipment**

Militaries are developing more sophisticated and advanced defense equipment to counter emerging threats. Innovations ranging from hypersonic flights and directed energy weapons to space militarization are underway. Also, the defense industry is aligning its objective with achieving net-zero emissions.

The US Army, Navy, and Air Force are each developing hypersonic missiles—non-nuclear offensive weapons that fly faster than five times the speed of sound and spend most of their flight in the Earth's atmosphere.[22] Epirus, a US-based startup, develops directed energy weapons systems.

- **5G Connectivity**

The adoption of 5G technology is a significant trend in the Aerospace and Defense Industry. Timely access to accurate information is of utmost importance for military operations, and 5G's rapid speeds are revolutionizing real-time decision support within the military. This technology offers hyper-converged connectivity and secure data networks, paving the way for innovative command-and-control applications and streamlined logistics.[23] WiGL is a US-based startup that offers wireless electric charging via targeted energy through the air.

- **Use of Immersive Technologies**

The integration of immersive technologies is a prominent trend in the Aerospace and Defense Industry in the USA. These technologies are revolutionizing the way military training and operations are conducted. Virtual reality (VR) is being harnessed by startups to create synthetic training environments (STE) that enhance conventional training and mission rehearsal, ultimately improving the readiness of soldiers and military units.

Moreover, augmented reality (AR) is playing a pivotal role in enhancing on-field soldier effectiveness. The United States earlier allocated $11 billion into VR/AR, primarily focusing on military innovation in 2022. The adoption of immersive technologies is reshaping military training and mission execution. [24]

- **Cyber Warfare**

Cyber is a key domain for the U.S. military. Military systems are often vulnerable to cyber-attacks which could potentially lead to the loss of classified military information and damage to military systems. This trend encompasses multiple facets, including improving security for connected military equipment, safeguarding cyber protection for major institutions, and enhancing nuclear security measures. Additionally, there is a notable focus on developing offensive cyber warfare capabilities, which encompass various strategies, from malware and ransomware to phishing attacks, aimed at strengthening the overall cyber defense capabilities of the military. The trend underscores the significance of cybersecurity in maintaining the integrity and security of military operations.[25]

- **Additive Manufacturing**

The Aerospace and Defense Industry in the USA is increasingly embracing additive manufacturing, commonly known as 3D printing. This technology is revolutionizing the way defense equipment is manufactured. It allows the production of components and parts with far less material compared to traditional manufacturing methods. According to a study by Defense Intelligence, a staggering 75% of business executives anticipate that additive manufacturing will become commonplace in that sector over the next 10 years.

This trend is resulting in reduced production costs, fostering new design engineering opportunities, enabling localized on-demand production, and alleviating logistical

challenges. The US Army has been using AM to create lightweight brackets and mounts for handheld launch components to help more evenly distribute weights and loads.[26]

- **Big Data & Analytics**

The future of warfare relies ever so more on information and the ability to derive insights from it. Militaries with the capabilities to extract the most vital data, accurately and quickly analyze it, and then rapidly disseminate the information will have a strategic advantage. To aid this, big data analytics unlocks insights from various data sources. For example, a US-based startup Taekion develops technology for military data protection.

Moreover, predictive analytics deters threats and improves the safety and efficiency of dangerous tasks. This trend toward data-driven decision-making and the adoption of cutting-edge technologies is shaping the future of the industry.[27]

- **Decarbonization**

As one of the most challenging industries to decarbonize, the aerospace and defense industry has been at the forefront of adopting new and advanced manufacturing technologies, which can help address the sustainability challenge. The industry is likely to move toward using sustainable aviation fuels (SAFs) at scale and new propulsion technologies such as electric, hydrogen, and hybrid. In its efforts to advance decarbonization, the industry will likely establish multiple partnerships comprising technology investors, energy companies, airlines, and government agencies. Moreover, 2023 could also see commercial aerospace companies expanding renewable electricity use to reduce emissions at manufacturing facilities.[4]

4. SWOT ANALYSIS

4.1 Strengths

- The USA is renowned for its commitment to research and development (R&D) in the aerospace and defense sector. This dedication to innovation has led to significant advancements in military hardware, aviation technology, and space exploration. The industry continually pushes the boundaries of what's technologically possible, ensuring that the U.S. military remains on the cutting edge.
- The United States boasts a well-developed and extensive infrastructure to support the aerospace and defense sectors. This includes manufacturing facilities, testing grounds, research laboratories, and a vast network of suppliers. This infrastructure is critical in maintaining the nation's defense capabilities and also supports a robust defense industrial base.
- The federal government plays a crucial role in supporting the industry. Through consistent funding, contracts, and policies, the government helps drive innovation and ensures the security of the nation. This support also includes diplomatic and strategic measures to maintain the USA's position as a global defense leader.
- The USA has a history of forming strategic alliances and partnerships with other nations. The AUKUS agreement between Australia, the United Kingdom, and the United States has created particular impetus around reducing barriers to defense cooperation. These collaborations enhance the nation's defense capabilities and expand its global influence. Joint development projects and international cooperation contribute to the strength of the U.S. aerospace and defense sector.[1]
- The USA is a global leader in exporting aerospace and defense products. In 2022, the United States contributed some 102.8 billion U.S. dollars in aerospace exports. Thus, making it the leading country in terms of aerospace exports. American-made defense equipment and technology are sought after by many nations, further solidifying the industry's global influence.[2]

4.2 Weaknesses

- One major weakness lies in the high cost of development and production. Developing cutting-edge military technologies requires substantial financial resources, which can strain the budgets of companies operating within this sector. Lengthy procurement processes and complex regulatory frameworks add to the overall costs.
- Another challenge faced by the aerospace and defense industry is a heavy reliance on government contracts. Government spending on defense fluctuates with changes in geopolitical priorities or economic conditions, making it difficult for companies to predict future revenues accurately. This dependence on government contracts also

exposes companies to political risks such as budget cuts or policy changes that may impact their operations.

- Companies have to invest heavily in research and development (R&D) to stay competitive amidst evolving threats and changing market dynamics. There is a constant need for R&D for advanced military capabilities and technological advancements in this industry.
- Another weakness lies in supply chain vulnerabilities. The aerospace and defense sector relies heavily on a global network of suppliers for critical components and materials. Disruptions caused by natural disasters, trade disputes, or geopolitical tensions can lead to delays in production or compromise the quality of products.
- In the US, overall pax capacity, like pax traffic, has not fully recovered. The number of total airline seats available sits around 18% below the 2019 (pre-pandemic) level. With the drop in the number of passengers roughly equaling the reduction in capacity. This situation presents challenges for airlines, as it affects their ability to optimize operations and maintain profitability.[3]

4.3 Opportunities

- Emerging markets such as space, supersonics/hypersonics, and AAM are poised to change the industry landscape and capabilities in the coming years. 2023 will likely be an important year for these emerging markets in terms of investments, technology evolution, and regulation. According to the outlook survey, organizations are most likely to invest in space-related technologies and AAM in 2023.[4]
- One such trend is the growing demand for unmanned systems, including drones and autonomous vehicles. These technologies offer unique advantages in surveillance, reconnaissance, and combat missions while minimizing risks to human personnel. As governments worldwide recognize the potential of unmanned systems, there is a significant opportunity for companies to develop innovative solutions that cater to this expanding market.[5]
- Another opportunity lies in the commercial space sector. With private companies like SpaceX and Blue Origin making strides in space exploration and satellite deployment, there is an increasing need for advanced launch systems, satellite technology, and related infrastructure. This presents a vast market potential for aerospace firms to capitalize on by developing cutting-edge solutions that support commercial space activities.[6]
- Corporate private jet purchases surged in 2022 as spending in the sector reached a ten-year high.[7] Monthly private flights are up in the US by 30% from pre-pandemic levels, and private jets now account for a quarter of US flights, double their 2019 level.[8]
- Advancements in artificial intelligence (AI) present opportunities across various aspects of the aerospace and defense industry. AI-powered technologies can enhance

data analysis capabilities, improve decision-making processes, optimize maintenance procedures through predictive analytics, and automate routine tasks. By harnessing AI's potential effectively within this sector, organizations can gain a competitive advantage while driving operational efficiencies.[9]

- In the future, the focus will be on Sustainable Aviation Fuel (SAF). SAF production and use in the U.S. has increased in recent years; this fuel is now used by airlines at two major commercial airports in California. The industry can invest in the development of sustainable aviation fuels and green technologies to address environmental concerns, aligning with global efforts to reduce carbon emissions.[10]

4.4 Threats

- One key driver for the aerospace and defense industry is government spending on defense budgets. Governments around the world allocate significant resources towards ensuring national security through military capabilities. A significant threat faced by the industry is the impact of defense budgets on its growth. Defense spending is subject to various factors such as political priorities, economic conditions, and changing threat landscapes. Budget constraints can limit the amount of funding available for research and development, procurement of new equipment, and maintenance of existing assets. The unpredictability makes it challenging for businesses to plan their long-term strategies effectively and make investments with confidence. It also poses risks for supply chains as production volumes may fluctuate based on changes in demand driven by defense budget allocations.[11]
- The industry faces significant threats due to the unpredictable influence of external factors, notably the COVID-19 pandemic and the geopolitical complexities arising from events such as the Russia-Ukraine war and the Israel-Palestine conflict. These factors introduce instability, impacting defense market dynamics, supply chains, and resource allocation, thereby posing challenges to the industry's stability and growth.[12]
- Flight cancellations among major US airlines increased by 69% in 2022 — a huge rise, considering that scheduled flights increased by only 13%.[13] The data for flight delays and lost luggage are comparable. US consumer complaints about airline service have risen by 300% from pre-pandemic levels.[14] These growing issues can lead to a decline in customer satisfaction, and result in financial losses for airlines.
- The surge in jet fuel prices, particularly due to Russia's attack on Ukraine, poses a significant threat to the aviation industry's growth. Jet fuel costs, which have recently decoupled from Brent crude prices, have spiked by up to 65% since January 2022.[15] This increase in operating costs puts substantial financial pressure on airlines, potentially leading to higher ticket prices for passengers. Although airlines have adapted by adjusting ticket purchasing behavior, and rapidly passing on fuel cost increases, the overall industry could face challenges in terms of profitability and attracting cost-conscious travelers.[16]
- The shortage of highly skilled aviation engineers, which worsened in 2021-22 due to many engineers leaving for other industries, poses a significant threat to the industry's

growth. This shortage has been a concern for over a decade, and it can hinder the development and maintenance of aircraft and related technologies, potentially leading to delays and reduced capabilities in the aerospace sector.[17]

- As the war has fueled a global effort to produce munitions to fill the global rearmament gap, South Korea pivoted with exceptional speed to increase output. In 2021, South Korea's arms exports rose 140%, to a record $17.3 billion, including deals worth $12.4 billion to sell materials including fighter jets and multiple rocket launchers to Poland, one of Ukraine's closest allies.[18] Additionally, Japan announced plans to spend 43 trillion yen ($313 billion) over the next five years to enhance its defense capability, doubling its military spending to about 2% of current gross domestic product — in line with NATO member states' target.[19] Moreover, China is the world's second-largest arms producer, but the ability of its arms industry to develop certain advanced weapon systems is still growing.[20] As more nations bolster their defense industries, U.S. defense companies may face increased challenges in maintaining their market share and profitability.

5. A&D COMPETITIVE LANDSCAPE

5.1 Table: Top Companies (By Revenues)

		Revenue (US $ millions)			Operating Profit (US $ millions)		
#	Company	2022	2021	Change	2022	2021	Change
1	Raytheon Technologies	67,074	64,388	4.2%	5,414	4,958	9.2%
2	Boeing	66,608	62,286	6.9%	-3,547	-2,902	-22.2%
3	Lockheed Martin	65,984	67,044	-1.6%	8,348	9,123	-8.5%
4	Airbus	62,791	55,724	12.7%	5,599	6,314	-11.3%
5	General Dynamics	39,407	38,469	2.4%	4,211	4,163	1.2%
6	Northrop Grumman	36,602	35,667	2.6%	4,253	4,217	0.9%
7	BAE Systems	26,212	26,851	-2.4%	2,940	3,286	-10.5%
8	GE Aerospace	26,050	21,310	22.2%	4,775	2,882	65.7%
9	Safran	20,529	18,034	13.8%	2,148	1,655	29.8%
10	Thales	18,474	19,139	-3.5%	2,035	1,949	4.4%
11	L3Harris	17,062	17,814	-4.2%	1,929	1,889	2.1%
12	Rolls Royce	16,671	15,431	8.0%	1,032	706	46.3%
13	Leonardo	15,471	16,708	-7.4%	1,011	1,077	-6.2%
14	Leidos	14,396	13,737	4.8%	1,088	1,152	-5.6%
15	Honeywell Aerospace	11,827	11,026	7.3%	3,228	3,051	5.8%

Source: Company Annual Reports

5.2 Company Profile

5.2.1 RAYTHEON TECHNOLOGIES

Raytheon Technologies - Company Overview

#	Item	Contents
1	Legal Name	RTX Corp.
2	Website	www.rtx.com
3	LOGO	RTX
4	Company Description	Raytheon Technologies Corporation is an aerospace and defense company that provides advanced systems and services for commercial, military, and government customers worldwide.
5	Founded	1922
6	Headquarters	Arlington County, Virginia, United States
7	Sales by type	41% Commercial 59% Defense
8	Net Sales (2022)	$67.1 billion
9	Employees as of (2022)	180,000+
10	Core Business Segments	Aeronautics Missiles and Fire control Rotary and Mission systems Space

Raytheon Technologies - Company Financials

Figure 9: Net Sales in USD Billion (2018-2022)[10]

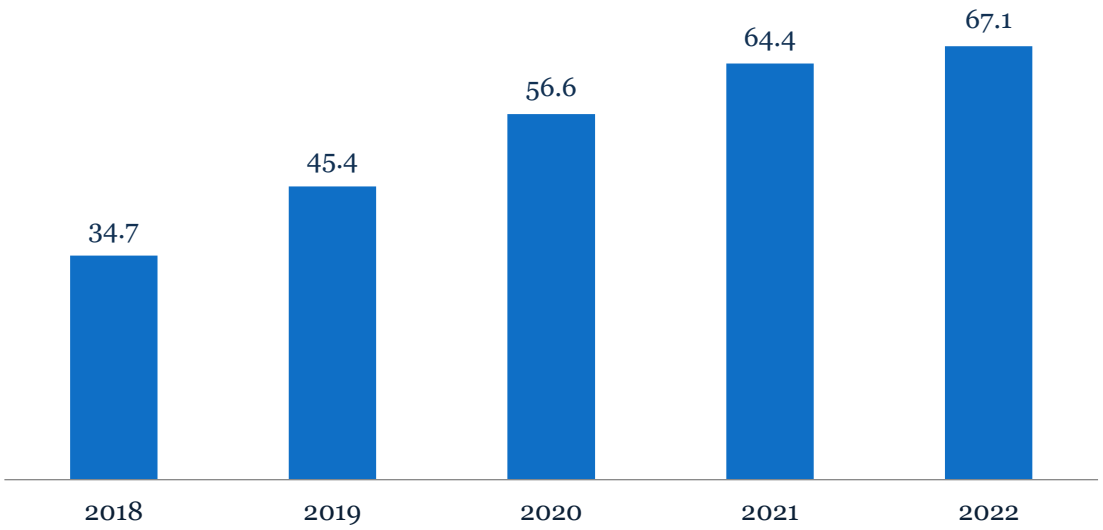


Figure 10: Gross Profit in USD Million (2018-2022)[11]

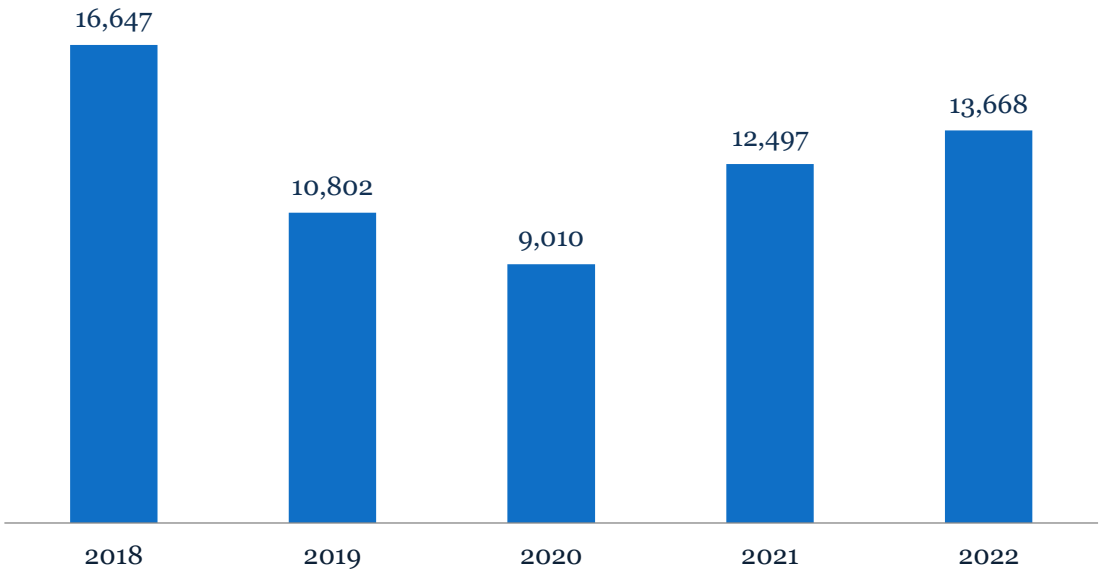


Figure 11:Revenue Share (%), by Geography (2022)[12]

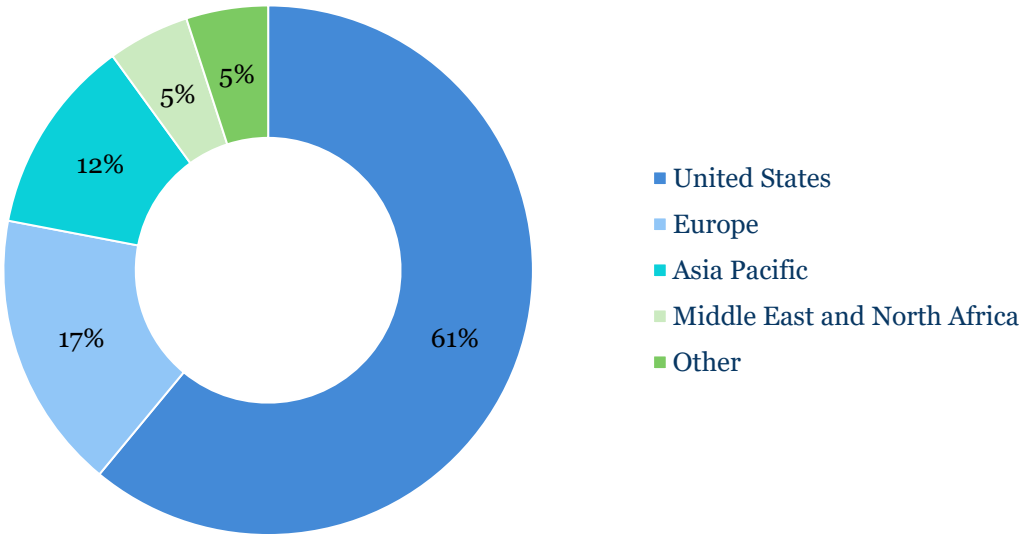
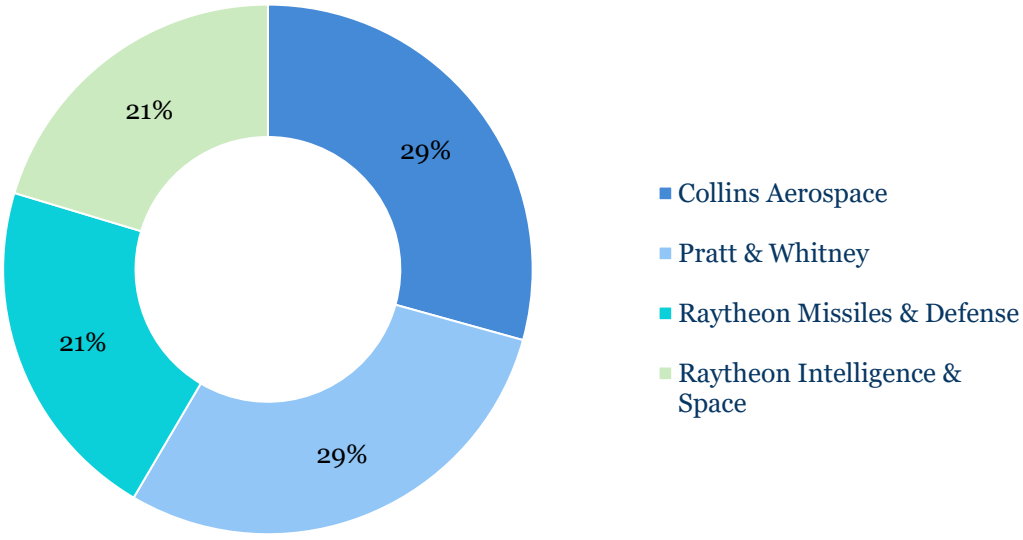


Figure 12: Revenue Share (%), by Operating Segments (2022)[3]



Raytheon Technologies - Market Overview

Core Solutions and Product Offerings	Defense and aerospace business solutions include various products in 8+ categories. The company's product portfolio comprises commercial, general aviation, and military aircraft engines, engine control systems, power generation management and distribution systems, and flight systems. It also offers command and control, communications and navigation, cyber security, electronic warfare, hypersonic, missile defense, naval warfare, land warfare, and space solutions. Moreover, the company also provides fleet management services, and aftermarket maintenance, repair, and overhaul (MRO) services.
Market Segment	Aeronautics Missiles and Fire control Rotary and Mission systems Space
Company Vertical	Aircraft technology, defense and commercial space products, and airborne communication
Company Highlights	• RTX is developing an innovative solid-state circuit breaker for hybrid-electric aircraft under NASA contract. • Raytheon successfully demonstrated the capabilities of the Low, slow, small-unmanned aircraft Integrated Defense System, or LIDS, during the U.S. Army's annual summer test period. • US Air Force awarded RTX $39 million for an air defense command and control prototype. • In October, Airbus began development flight testing of the Pratt & Whitney GTF Advantage engine on an A320neo aircraft. • The European Union Commission selected Collins Aerospace and Pratt & Whitney, via the Clean Aviation Joint Undertaking, to team with EU and UK partners on seven sustainable aviation development projects.

Raytheon Technologies – Products and Strategies

Products*	Strategies
– AMRAAM Missile – Air-to-Surface Effectors – Advanced Weather Interactive Processing System – Electronic Armor – REDPro ZTX – GhostEye® Family of Radars: LTAMDS – NASAMS: National Advanced Surface-to-Air Missile System – Stinger Missile – Ku-band Radio Frequency System – SM-6 Missile – AN/TPY-2: Army Navy/Transportable Radar Surveillance – Hypersonics	• The company operates across a wide spectrum of industries, from aerospace and defense to cyber security and intelligence. Their strategy is to maintain a diverse portfolio of products and services, which helps them remain resilient in changing market conditions. • They invest significantly in research and development to create cutting-edge technologies for both commercial and defense purposes. This focus on innovation ensures they stay ahead of competitors and can provide the latest solutions to their clients. • A cornerstone of Raytheon Technologies' strategy is a customer-centric approach. It maximizes its market reach and attraction by tailoring its products and marketing techniques to precise customer segments. • The company is investing in emerging technologies, including electric aviation and autonomous systems, to continue expanding its product offering. • It has a strategic global presence with over 180 manufacturing and service locations in 58 countries worldwide, ensuring maximum coverage and accessibility. • The company promotes its brand through a combination of sales, public relations, advertising, and public selling.

Note: The product list is not exhaustive.

Raytheon Technologies – Key Development (2023)

Date	Type of Key Development	Details
October 2023	Expansion	RTX, in partnership with Rafael Advanced Defense Systems, is to build a missile production facility in Camden, Arkansas with a $33 million capital investment.
October 2023	Contract	RTX has been awarded a contract from the U.S. Army to expand the company's Advanced Distributed Radar (ADR) concept to include the Lower Tier Air & Missile Defense Sensor (LTAMDS).
August 2023	Technological Advancement	RTX's BBN division will lead a team to create multi-hop mobile ad hoc networks, or MANETs, for the Department of Defense. The technology will allow forward-deployed service members with 5G equipment to communicate directly without the need for a complex 5G infrastructure.
August 2023	Contract	Raytheon has been awarded $7 million to advance the development and assessment of the company's GhostEye® MR radar, an advanced medium-range sensor for the National Advanced Surface-to-Air Missile System, or NASAMS.
May 2023	Technological Advancement	Raytheon Technologies will outfit Korea Aerospace Industries' FA-50 Light Combat Aircraft with the new PhantomStrike radar. PhantomStrike is a fully air-cooled fire-control radar designed to provide long-range threat detection, tracking, and targeting.

5.2.2 BOEING

Boeing - Company Overview

#	Item	Contents
1	Legal Name	Boeing Co.
2	Website	www.boeing.com
3	LOGO	
4	Company Description	The Boeing Company is an American multinational corporation that designs, manufactures, and sells airplanes, rotorcraft, rockets, satellites, telecommunications equipment, and missiles worldwide.
5	Founded	1916
6	Headquarters	Arlington, Virginia, United States
7	Sales by type	56% Commercial 44% Defense
8	Net Sales (2022)	$67.1 billion
9	Employees as of (2022)	156,000
10	Core Business Segments	Commercial Airplanes (BCA) Defense, Space & Security (BDS) Global Services (BGS) Boeing Capital (BCC)

Boeing - Company Financials

Figure 13: Net Sales in USD Million (2018-2022)[13]

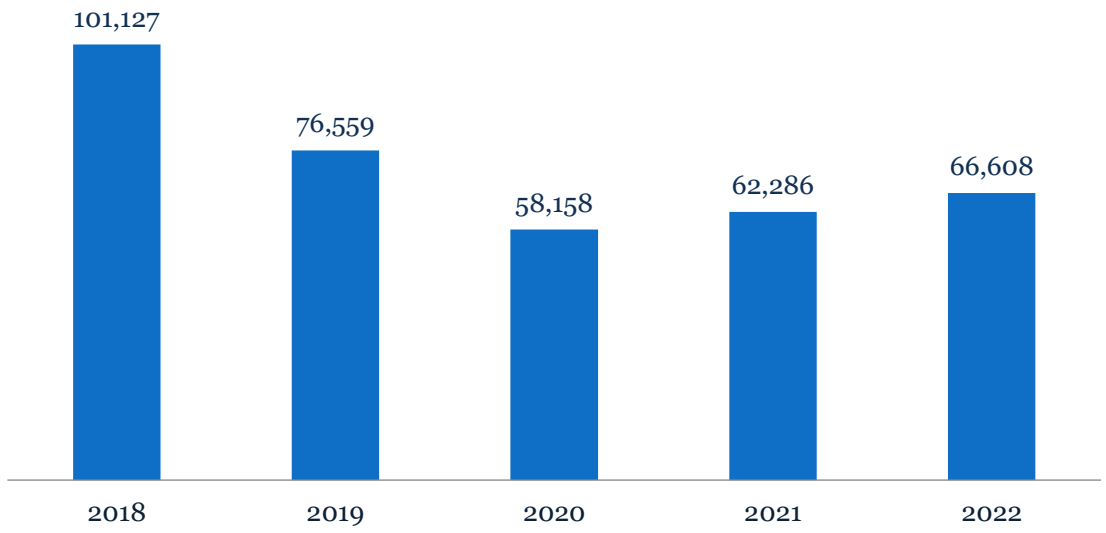


Figure 14: Gross Profit in USD Million (2018-2022)[14]

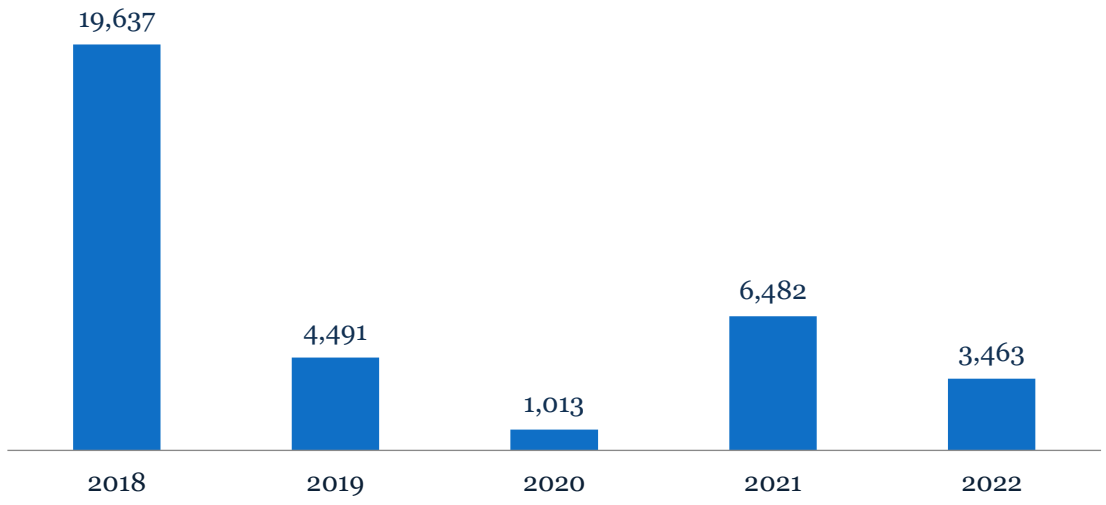


Figure 15: Revenue Share (%), by Geography (2022)[15]

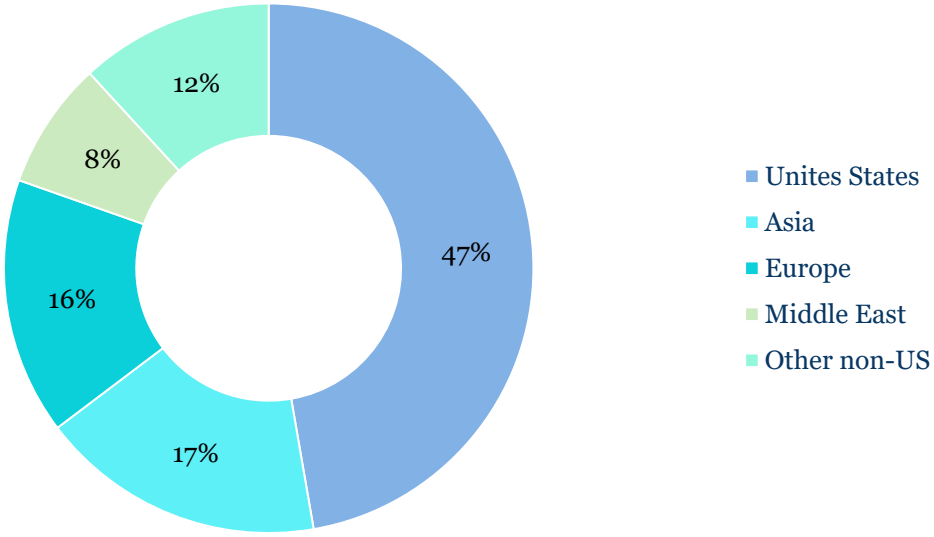
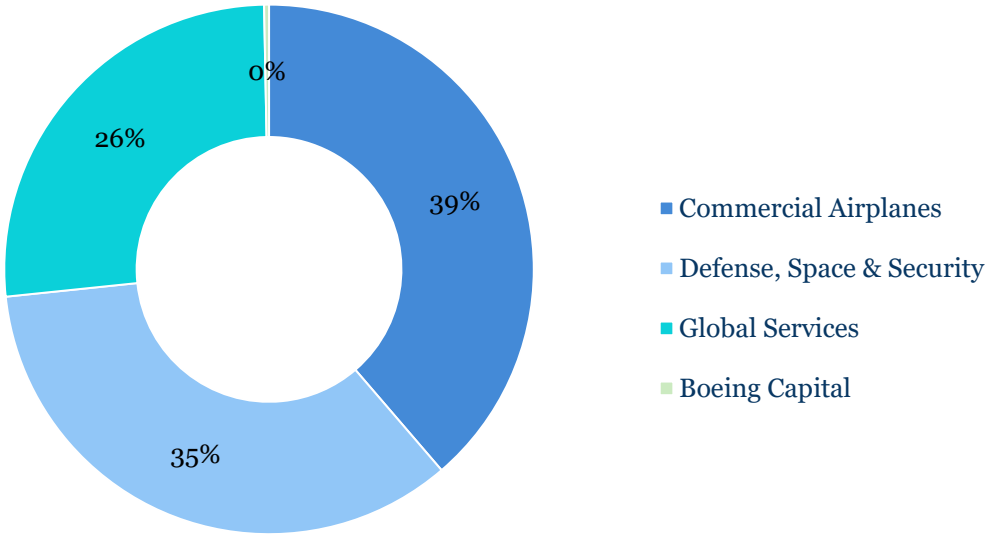


Figure 16: Revenue Share (%), by Operating Segments (2022)[6]



Boeing - Market Overview

Core Solutions and Product Offerings	The company primarily designs, develops, and manufactures commercial and military aircraft. It also develops space, defense, and security systems. Its portfolio includes commercial and military aircraft, weapons, satellites, electronic and defense systems, launch systems, and communication systems.
Market Segment	Commercial Airplanes (BCA) Defense, Space & Security (BDS) Global Services (BGS) Boeing Capital (BCC)
Company Vertical	Commercial airplanes, defense products, and space systems
Company Highlights	• Boeing celebrates delivery of 150th 737-800BCF aircraft. • Boeing expects to deliver the U.S. Air Force's next F-15EX Eagle II fighter by the end of November, following a series of challenges that delayed its original delivery by nearly a year. • Boeing and Logisys, are celebrating the milestone delivery of the 100th Next Generation Automatic Test System (NGATS) at the Teradyne manufacturing facility. • According to Boeing, Southwest Airlines has placed an order for 108 additional Boeing 737-7s, bringing its total orders to more than 500 737 MAX jets. • Boeing Business Jets is offering customers a new, streamlined approach to designing a unique, comfortable, and functional interior for our BBJ 737-7 jet.

Boeing – Products and Strategies

Products*	Strategies
– 737 Max – 777-8 Freighter – 747-8 – AH-6 Light Attack Helicopter – A-10 Wing Replacement – B-1B Lancer – C-40 Clipper – CH-47 Chinook – F/A-18 Super Hornet – CST-100 Starliner – X-37 B	• The company offers customization options for its commercial aircraft, allowing airlines to select configurations that suit their specific needs. • Boeing's product strategy extends beyond manufacturing and delivery. They provide a range of lifecycle services, including maintenance, repair, and training. This approach builds lasting relationships with customers. • They continually invest in research and development to create cutting-edge aircraft and aerospace systems. Their innovative products cater to a wide range of customers and applications. • It offers upgrades and retrofits for its older aircraft models. This allows existing customers to enhance the performance, efficiency, and safety of their fleets without investing in entirely new aircraft. • Boeing continuously explores advanced materials and manufacturing techniques to make their products lighter, stronger, and more fuel-efficient. • Boeing's products undergo rigorous testing and adhere to the highest industry standards. This commitment to safety is central to their product strategy and brand reputation.

Note: The product list is not exhaustive.

Boeing – Key Development (2023)

Date	Type of Key Development	Details
October 2023	Business Development	Boeing and Australia industry partner Ferra Engineering signed a Memorandum of Understanding to continue production of Joint Direct Attack Munition Extended Range (JDAM ER) wing kits.
October 2023	Expansion	Boeing announced the opening of its Engineering and Technology Center in Brazil, one of 15 Boeing engineering sites around the world that develop advanced technology to drive aerospace innovation.
October 2023	Expansion	Boeing signed a Memorandum of Understanding (MoU) with Indonesia's Directorate General of Civil Aviation (DGCA) to explore initiatives aimed at strengthening Indonesia's aviation sector. The signing coincided with the inauguration of Boeing's new permanent office in Jakarta.
September 2023	Business Growth	Boeing projected that intra-African passenger traffic will more than quadruple in the next twenty years, placing the continent's growth among the highest globally. To support this, 1,025 new airplanes will be needed over the next two decades.
September 2023	Business Development	Boeing has become a Patron of the World Energy Council, marking the first aerospace company to partner with the organization to drive sustainable energy transitions.

5.2.3 LOCKHEED MARTIN

Lockheed Martin - Company Overview

#	Item	Contents
1	Legal Name	Lockheed Martin Corp.
2	Website	www.lockheedmartin.com
3	LOGO	LOCKHEED MARTIN
4	Company Description	The Lockheed Martin Corporation is an American aerospace, arms, defense, information security, and technology corporation. It was formed by the merger of Lockheed Corporation with Martin Marietta.
5	Founded	1995
6	Headquarters	Bethesda, Maryland, United States
7	Sales by type	67% U.S. Government 33% International 0.6% U.S. commercial and other
8	Net Sales (2022)	$65,984 million
9	Employees as of (2022)	116,000
10	Core Business Segments	Aeronautics Missiles and Fire Control Rotary and Mission Systems Space

Lockheed Martin - Company Financials

Figure 17: Net Sales in USD Million (2018-2022)[16]

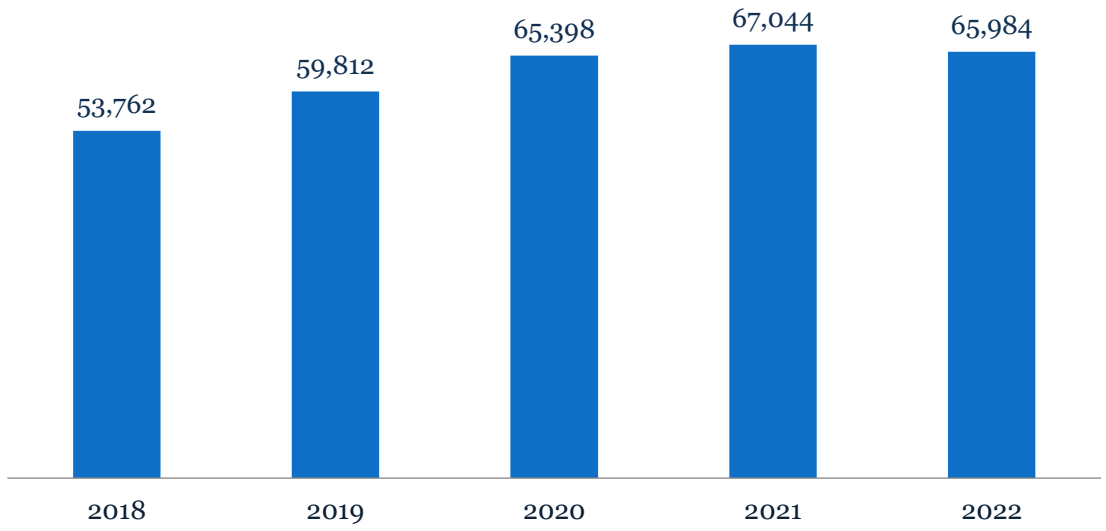


Figure 18:Gross Profit in USD Million (2018-2022)[17]

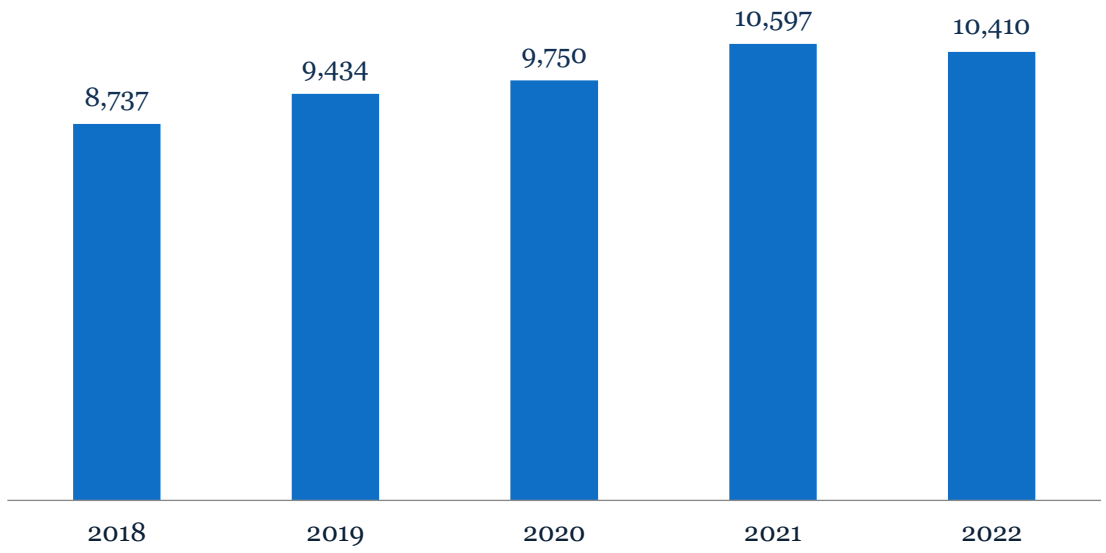


Figure 19:Revenue Share (%), by Geography (2022)[18]

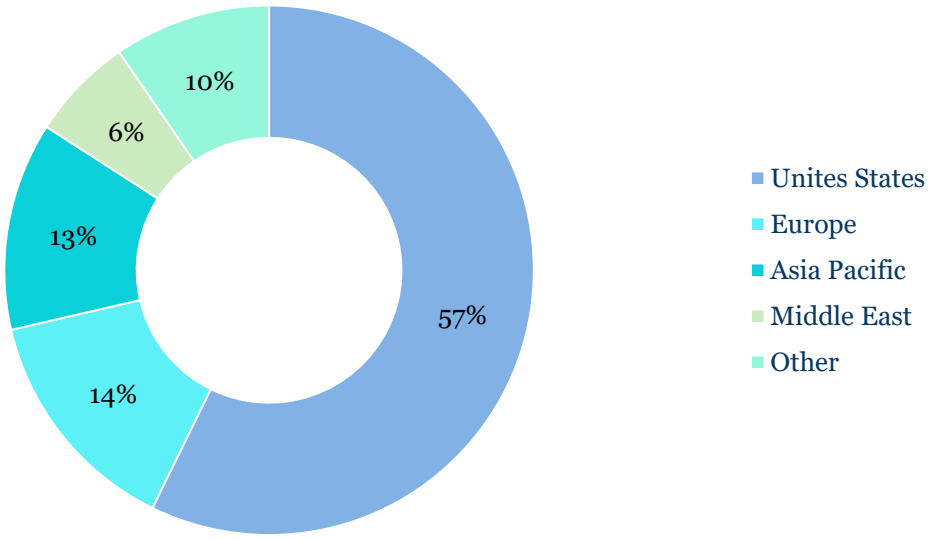
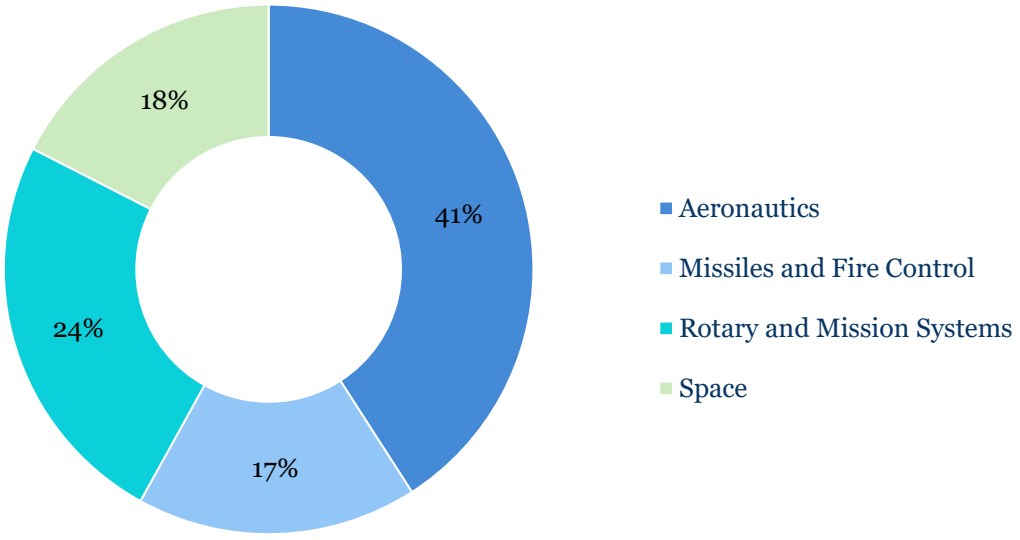


Figure 20:Revenue Share (%), by Operating Segments (2022)[9]



Lockheed Martin - Market Overview

Core Solutions and Product Offerings	The product portfolio of Lockheed Martin consists of ATC Systems, Ballistic Missiles, Precision-guided munitions, Missile Defense Elements, Directed-energy weapons, Combat Systems, Armoured fighting vehicles, Combat Aircraft, Radar Technologies, etc. It also offers Electronic Warfare Systems, Multi-Function Sensor Systems, Satellites, Energy Management, Storage Systems, etc.
Market Segment	Aeronautics Missiles and Fire Control Rotary and Mission Systems Space
Company Vertical	Commercial, defense, and space technology
Company Highlights	• The Missile Defense Agency selected Lockheed Martin to provide core components of the Defense of Guam layered system architecture. • Lockheed Martin Missiles and Fire Control (MFC) was in the global spotlight in 2022 for providing vital combat capabilities in Ukraine • The X-59 experimental supersonic aircraft, built by Lockheed Martin Skunk Works® and NASA Aeronautics, was selected as one of TIME's "Top Inventions of 2023" in the Transportation category • For the first time, Lockheed Martin demonstrated its Hybrid 5G-Tactical Mesh Network live in a multi-domain environment. • U.S. Navy selected Lockheed Martin to develop the Integrated Combat System.

Lockheed Martin – Products and Strategies

Products*	Strategies
– BLACK HAWK® Helicopter – F-16 Fighting Falcon – LM-100J – MATRIX™ Technology – Indago 3 – UAV – Stalker UAS: Elevated Intelligence – Intercontinental Ballistic Missile (ICBM) – Orion – Callisto – Aegis – Hypersonics	• Lockheed Martin is renowned for producing cutting-edge military aircraft. Their product strategies emphasize advanced technology, multi-role capabilities, and high performance. • It makes strategic investments in startups and emerging technology companies. This supports the development of disruptive technologies that can be integrated into their product offerings. • The company supports product life cycle management through sustainment and logistics solutions. These strategies include maintenance, upgrades, and logistics support for military equipment and systems. • It offers customization options for military customers to tailor systems and equipment to their specific requirements. Integration strategies ensure interoperability and efficient use of systems across various platforms. • The company emphasizes research and development to drive innovation in its product portfolio. These strategies fuel the creation of advanced technologies and next-generation solutions.

Note: The product list is not exhaustive.

Lockheed Martin – Key Development (2023)

Date	Type of Key Development	Details
November 2023	Business Development	The Lockheed Martin-built Orion exploration-class spacecraft launched on the National Aeronautics and Space Administration's (NASA's) Artemis 1 and completed a 25.5-day mission, splashing down off the coast of California.
October 2023	Contract	The U.S. Department of Defense and Lockheed Martin finalized a $30 billion contract for the production and delivery of up to 398 F-35s – including U.S., international partners, and Foreign Military Sales aircraft in Lots 15 and 16, with the option for Lot 17.
October 2023	Expansion	Lockheed Martin announced at the Seoul International Aerospace and Defense Exhibition (Seoul ADEX) that it signed a memorandum of understanding (MoU) to support the C-130J Super Hercules global supply chain with Kencoa Aerospace Corporation, the Republic of Korea aerospace industry partner.
October 2023	Business Growth	U.S. and Switzerland officials formalized an agreement for Switzerland to purchase Lockheed Martin's Patriot Advanced Capability-3 (PAC-3) Missile Segment Enhancement (MSE) missiles and related support equipment. With this agreement, Switzerland became PAC-3's 15th partner nation.
September 2023	Business Development	The U.S. Army Contracting Command – Orlando, on behalf of the Test Resource Management Center and Program Executive Office Simulation, Training, and Instrumentation, has selected Lockheed Martin for Event Planning, Operations, and Support at the National Cyber Range Complex (NCRC) site at Joint Base Charleston in Hanahan, South Carolina.

5.2.4 AIRBUS

Airbus - Company Overview

#	Item	Contents
1	Legal Name	Airbus SE
2	Website	www.airbus.com/en
3	LOGO	AIRBUS
4	Company Description	Airbus SE is a European multinational aerospace corporation. The company's primary business is the design and manufacturing of commercial aircraft. The company also has separate commercial, defense space, and helicopter divisions.
5	Founded	2000
6	Headquarters	Blagnac, France
8	Net Sales (2022)	$62,791 million
9	Employees as of (2022)	134,267
10	Core Business Segments	Commercial Aircraft Helicopters Defense Space Security

Airbus - Company Financials

Figure 21:Net Sales in USD Million (2018-2022)[19]

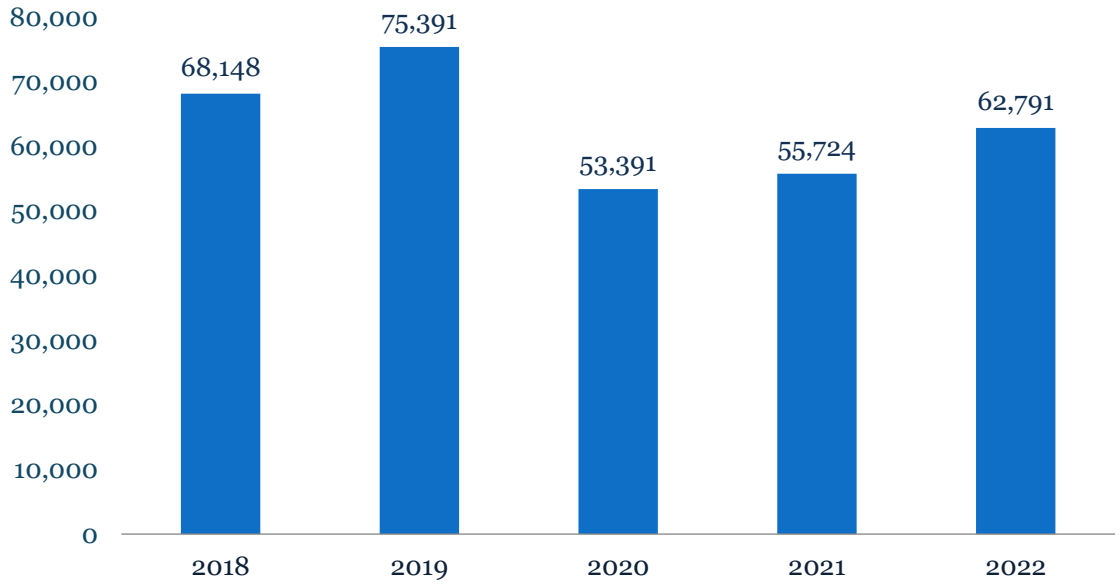


Figure 22:Gross Profit in USD Million (2018-2022)[20]

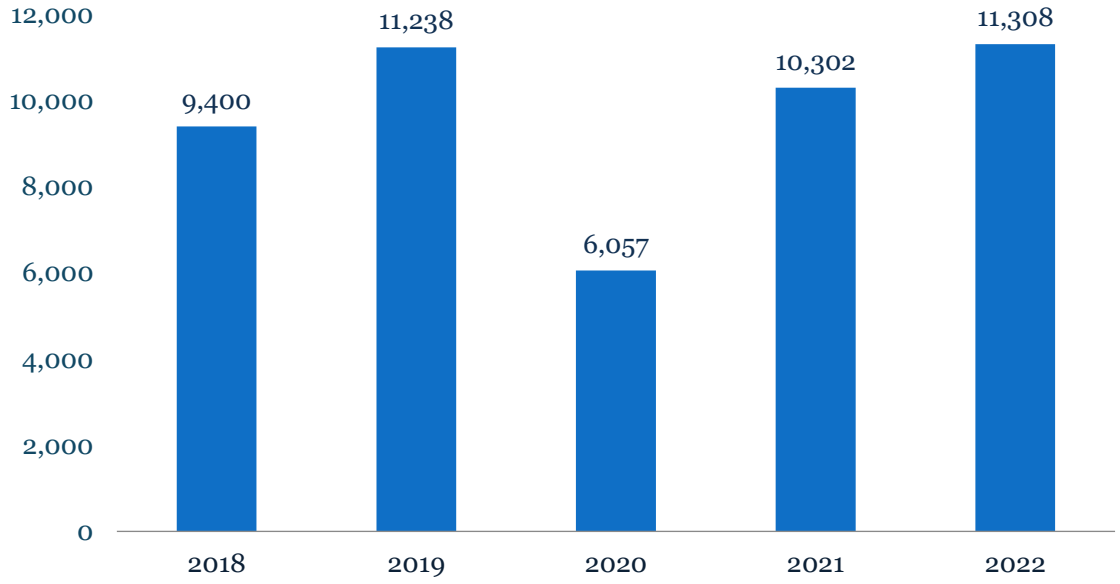


Figure 23: Revenue Share (%), by Geography (2022)[21]

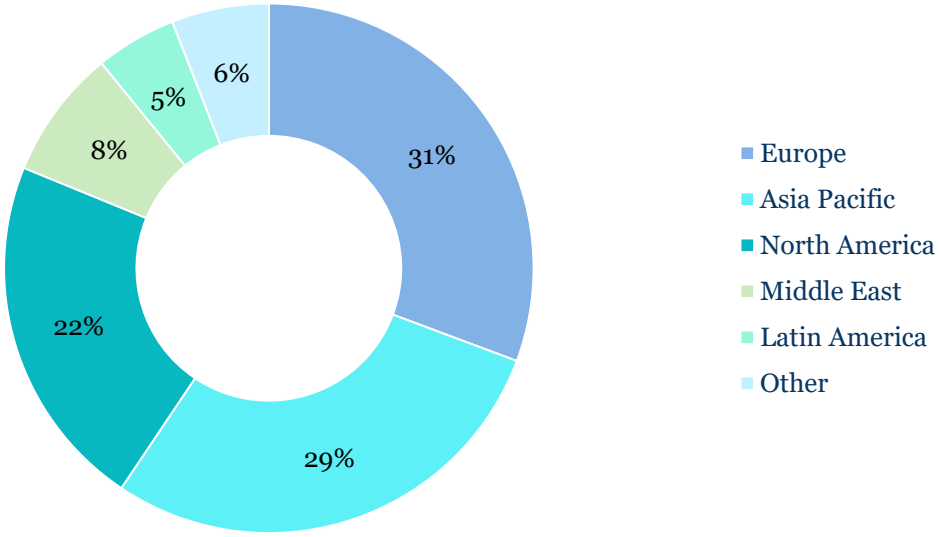
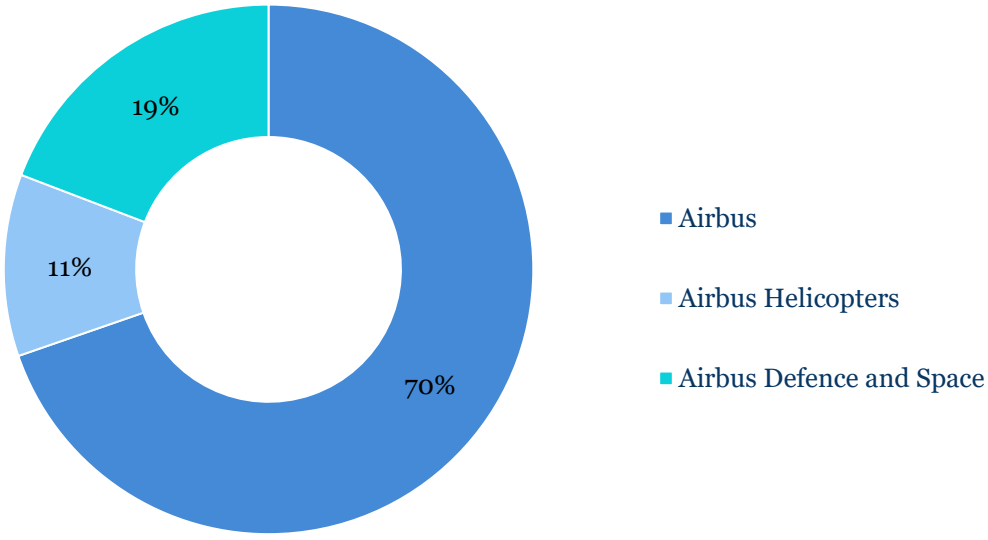


Figure 24:Revenue Share (%), by Operating Segments (2022)[12]



Airbus - Market Overview

Core Solutions and Product Offerings	Airbus manufactures commercial aircraft, passenger aircraft, helicopters, corporate jets, unmanned aerial systems, and freighter aircraft. The company also offers special mission aircraft, medium and light military transport aircraft, and civil and parabolic helicopters. Additionally, it designs, manufactures, and launches satellites and orbital infrastructure, and provides space services.
Market Segment	Commercial Aircraft Helicopters Defense Space Security
Company Vertical	Commercial aircraft, helicopters, defense and space technology
Company Highlights	• Airbus nominated Christian Scherer as the new Commercial Aircraft business CEO, reporting to Airbus CEO Guillaume Faury. • Airbus has officially launched the construction of the new A400M maintenance center in Wunstorf. • Airbus is going to install new fuel-saving sails for maritime operations. This new technology could save up to 1,800 tons of CO2 emissions per year. • During the German National Aviation Conference in Hamburg, Airbus Helicopters unveiled the PioneerLab, its new twin-engine technology demonstrator based on the H145 platform. • Airbus has officially inaugurated its new, highly automated A321XLR equipment installation hangar at its Hamburg site.

Airbus – Products and Strategies

Products*	Strategies
– A350F – BelugaST – A220 Family – ACJ Exclusive Aircraft – Eurodrone – DeckFinder™ – Pléiades NEO – Aliaca – Avionics – HCare Classics	• It is renowned for its wide range of commercial aircraft, from single-aisle planes like the A320 family to long-range, wide-body aircraft such as the A350 XWB. Product strategies in this segment focus on fuel efficiency, passenger comfort, and advanced technology integration. • The company provides customization options for airlines to tailor aircraft interiors to their brand and passenger preferences. Additionally, they offer fleet management services to optimize the operations of airline fleets. • Airbus invests heavily in research and development, emphasizing innovative technologies in the emerging field of urban air mobility (UAM) with projects like the electric vertical takeoff and landing (eVTOL) vehicle, aiming to transform urban transportation. • The company is involved in the development of unmanned aerial systems (UAS) for both military and civilian applications. Their products serve roles in intelligence, surveillance, reconnaissance (ISR), and more. • Airbus offers training and simulation solutions for aviation and defense personnel. These services enhance safety, efficiency, and readiness through realistic training experiences.

Note: The product list is not exhaustive.

Airbus – Key Development (2023)

Date	Type of Key Development	Details
October 2023	Technology Advancement	Airbus Helicopters opened a new 3D printing center at its Donauwörth site, significantly expanding its in-house capacity for this innovative process.
October 2023	Contract	Airbus Defense and Space has signed two contracts valued at € 1.2 billion in total with France's Direction générale de l'armement (DGA) and Direction de la Maintenance Aéronautique (DMAé) for the capability enhancement and the In-Service support of the French A330 MRTTs (Multi Role Tanker Transport) fleet.
October 2023	Business Development	Airbus Helicopters and Naval Group, in collaboration with the French Armament General Directorate, DGA (Direction génerale de l'armement), and the French Navy, have tested the SDAM demonstrator (Système de Drone Aérien Marine/ Naval Aerial Drone System) from a multi-mission frigate (FREMM). The trials took place on board the French Navy frigate, Provence, in the Mediterranean Sea between the 2nd and the 9th of October.
October 2023	Technology Advancement	Airbus will renew the entire fleet of chartered vessels that transport aircraft subassemblies between production facilities in Europe and the United States with three modern, low-emission roll-on/roll-off vessels, supported by wind-assisted propulsion.
September 2023	Business Development	Airbus Helicopters and PHI Group (PHI) have signed a framework agreement that includes commitments for 20 super-medium H175 helicopters and 8 H160s to serve the energy market worldwide, including in the US.

5.2.5 GENERAL DYNAMICS

General Dynamics - Company Overview

#	Item	Contents
1	Legal Name	General Dynamics Corp.
2	Website	www.gd.com
3	LOGO	
4	Company Description	General Dynamics Corp. is an aerospace and defense company, which engages in the provision of tanks, rockets, missiles, submarines, warships, and fighters. It serves the US government, defense agencies, and commercial customers.
5	Founded	1952
6	Headquarters	Reston, Virginia, United States
7	Sales by type	70% U.S. Government 15% U.S. commercial 9% Non-US Government 6% Non-US Commercial
8	Net Sales (2022)	$39,407 million
9	Employees as of (2022)	106,500
10	Core Business Segments	Aerospace Maritime System Combat System Technology

General Dynamics - Company Financials

Figure 25:Net Sales in USD Million (2018-2022)[22]

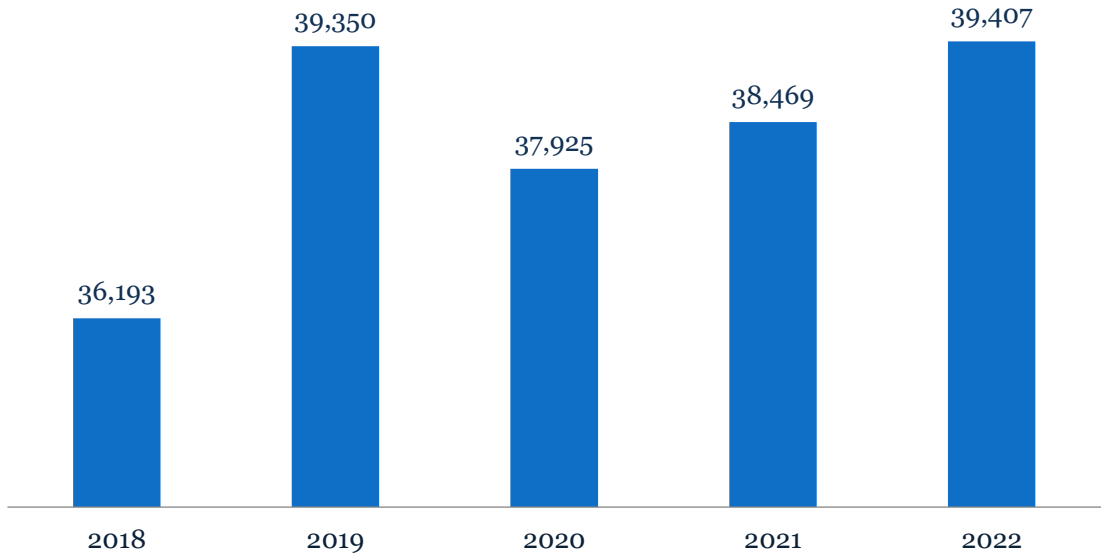


Figure 26:Gross Profit in USD Million (2018-2022)[13]

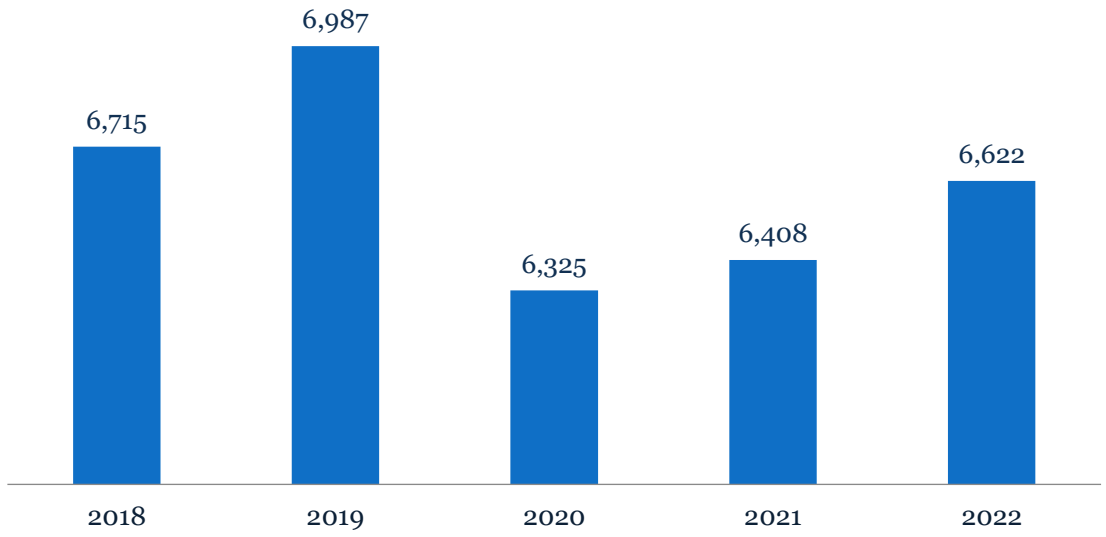


Figure 27:Revenue Share (%), by Geography (2022)[23]

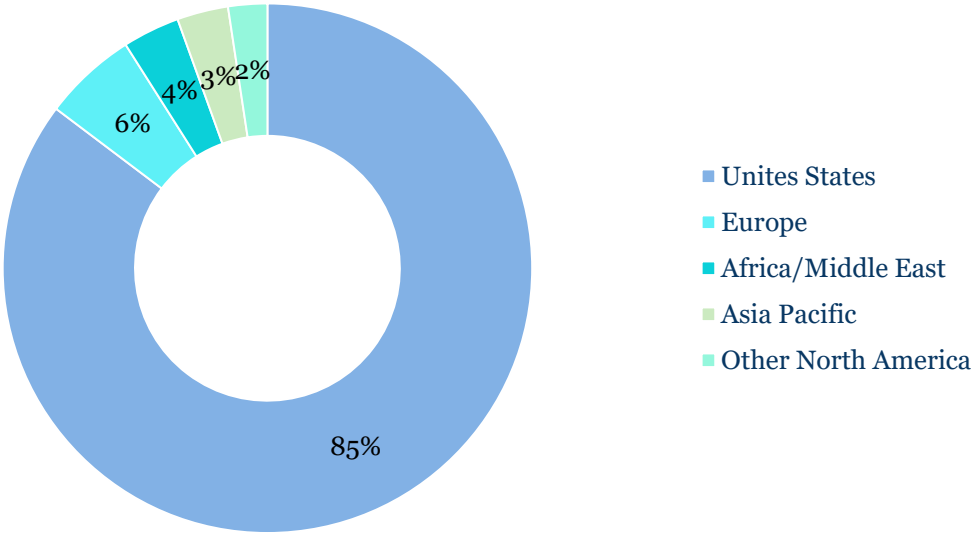
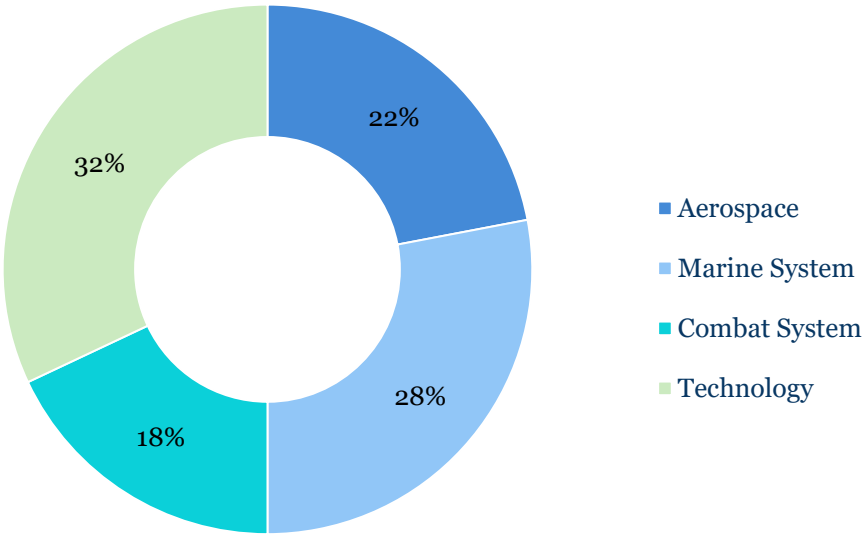


Figure 28:Revenue Share (%), by Operating Segments (2022)[24]



General Dynamics - Market Overview

Core Solutions and Product Offerings	The company provides business jets, wheeled combat vehicles, battle tanks, munitions, and propellants. It also provides nuclear-powered submarines, mission support, lifecycle support services, and command and control systems. Moreover, the company offers products and services in the areas of business aviation, land, and expeditionary combat vehicles and systems, armaments and munitions, shipbuilding and marine systems, and mission-critical information systems and technology solutions.
Market Segment	Aerospace Maritime System Combat System Technology
Company Vertical	Business aviation, ship construction and repair, land combat vehicles, weapon systems, and munitions
Company Highlights	• Awarded a total of $1.2 billion to produce or upgrade Stryker wheeled combat vehicles for the U.S. Army. • General Dynamics Electric Boat Awarded $967 Million Contract Modification for Virginia-Class Submarines. • Four business units of General Dynamics were among the exhibitors at the Association of the U.S. Army's Annual Meeting & Exposition, scheduled in October 2023, at the Walter E. Washington Convention Center in Washington, D.C. • All-new Gulfstream G700 and Gulfstream G800 Rolls-Royce Pearl 700 engines have earned Federal Aviation Administration (FAA) certification. • GDIT Wins All Initial Task Orders on $4.5 Billion Department of the Air Force Security Support Services IDIQ Contract.

General Dynamics – Products and Strategies

Products*	Strategies
– Gulfstream Business Jets – Abrams Tanks – Stryker Fighting Vehicles – Spanish PIZARRO – British AJAX – Virginia-class Attack Submarines – Columbia-class Ballistic Missile Submarines – Expeditionary Sea Base ships – Fleet Logistics Ships – Commercial Cargo Ships	• General Dynamics is a leader in designing and manufacturing combat systems. Their product strategies focus on innovation, advanced technology, and the ability to deliver a variety of combat solutions tailored to different military needs. • General Dynamics' products are known for their advanced capabilities and reliability in the marine segment. • As technology advances, they invest in robotics and autonomous systems. Their product strategies involve developing unmanned ground and undersea vehicles, enhancing situational awareness, and providing robotic solutions for military, research, and commercial purposes. • It specializes in biological detection technologies. Their product strategies focus on providing reliable, rapid detection and protection solutions for military and civil applications. • General Dynamics tailors its products to meet customer-specific requirements. Their product strategies prioritize customer engagement and collaboration to ensure products align with customer needs.

Note: The product list is not exhaustive.

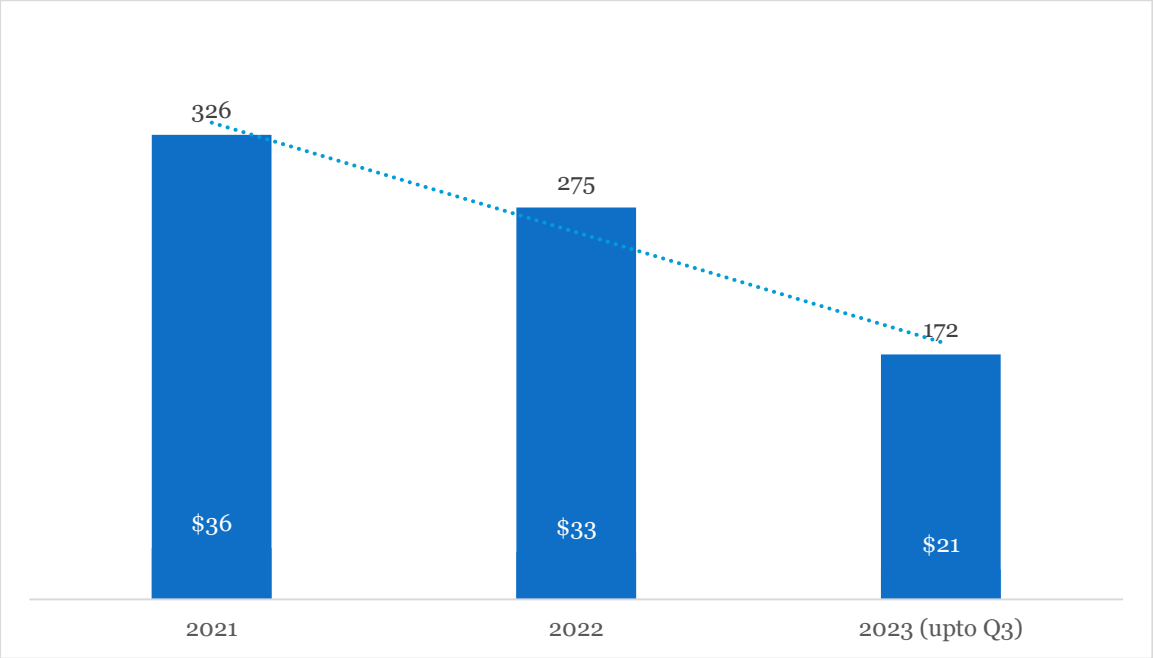
General Dynamics – Key Development (2023)

Date	Type of Key Development	Details
October 2023	Contract	Electric Boat, a business unit of General Dynamics, announced that it was awarded a $217 million contract for long lead time material associated with the construction of Virginia-class submarines SSN 814 and SSN 815.
October 2023	Contract	General Dynamics Information Technology, a business unit of General Dynamics, was awarded a $450 million contract by the Centers for Medicare and Medicaid Services to continue operating and modernizing its Healthcare Integrated General Ledger Accounting System (HIGLAS).
October 2023	Contract	General Dynamics NASSCO, a subsidiary of General, was awarded a contract by the U.S. Navy for the maintenance, modernization, and repair of USS Chung-Hoon (DDG 93) and USS James E. Williams (DDG 95).
August 2023	Expansion	General Dynamics Information Technology (GDIT) has expanded the computing capacity of twin supercomputers, Dogwood and Cactus, by 20%.
July 2023	Business Growth	General Dynamics Information Technology (GDIT) was awarded two recompete task orders totaling $320 million by the U.S. Department of State's Bureau of Consular Affairs to support visa applications and processing in South America.

6. A&D MERGERS AND ACQUISITIONS

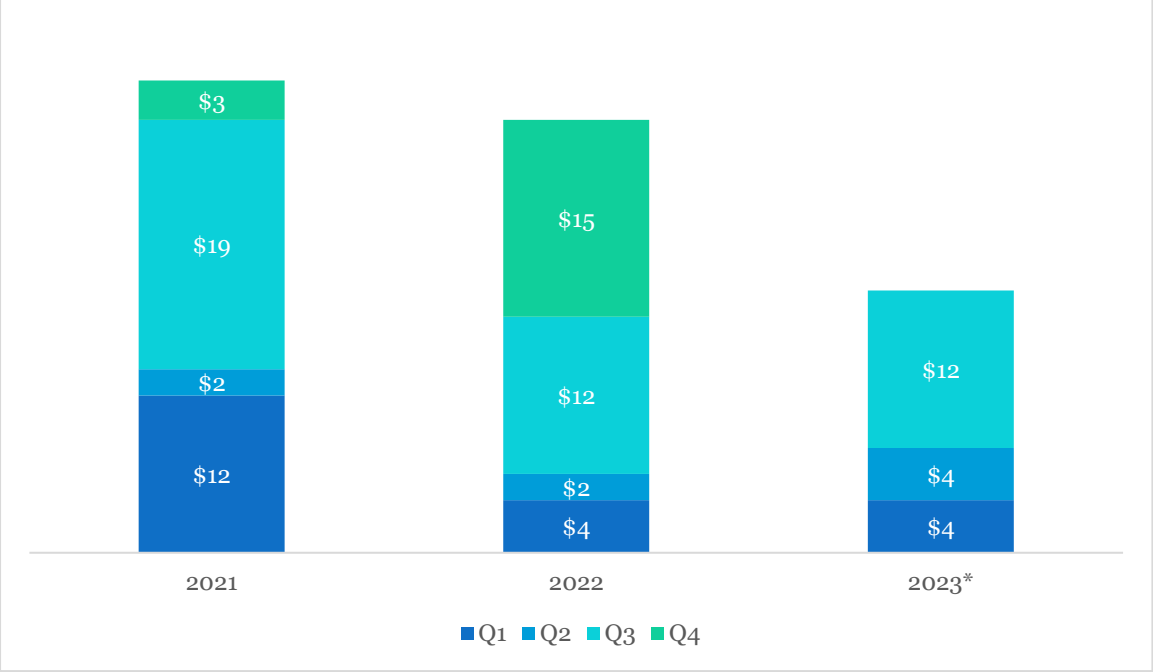
6.1 M&A in A&D Transaction Trend Overview

Figure 29: M&A in A&D (Annual) by Transaction Size (US$ Billion) and Number of Deals



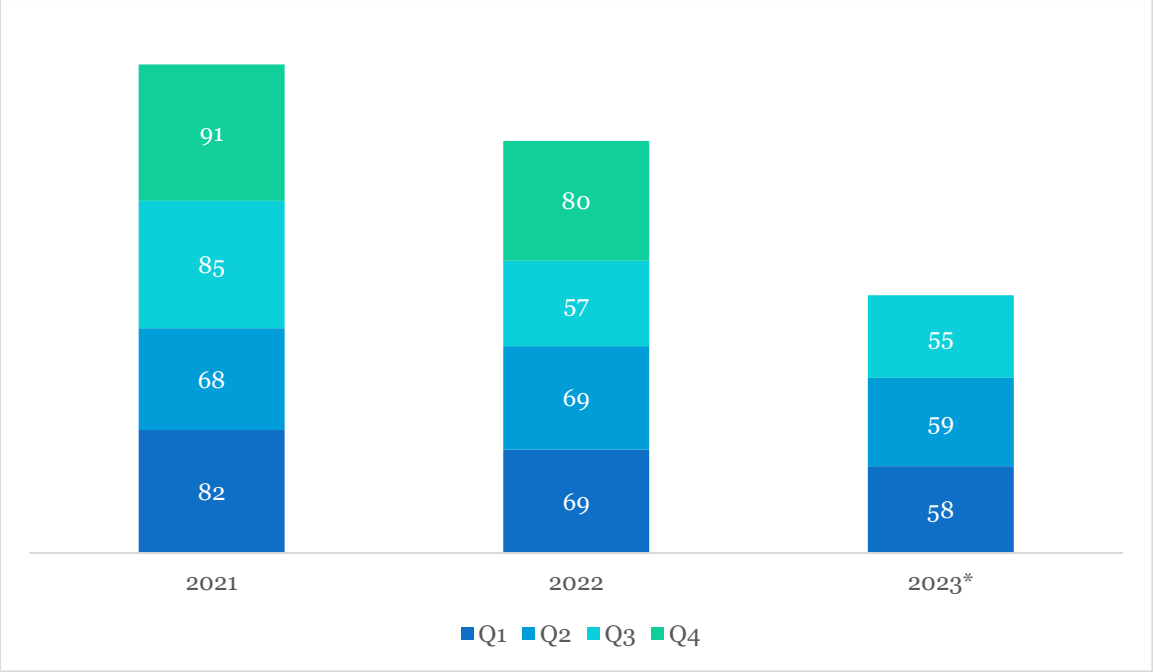
Source: Aranca Research, Capital IQ and PitchBook[25]

Figure 30: M&A in A&D (Quarterly) By Transaction Size (US$ Billion)



Source: Aranca Research, Capital IQ and PitchBook

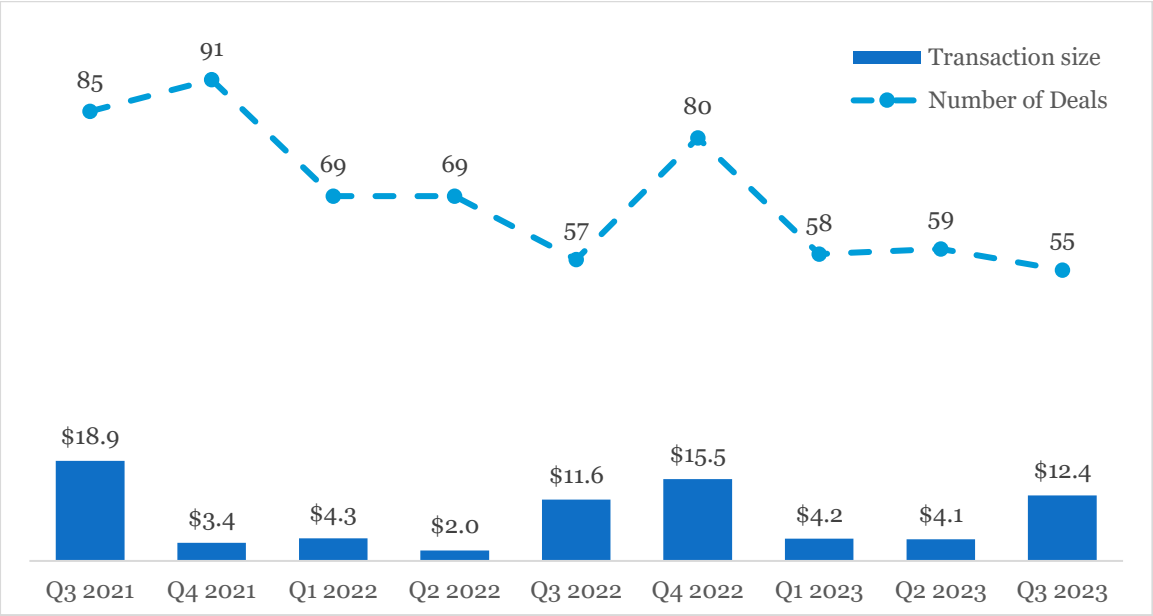
Figure 31:M&A in A&D (Quarterly) By Number of Deals



Note: volume and total transaction value might differ due to the lack of availability of undisclosed transactions.

Source: Aranca Research, Capital IQ and PitchBook

Figure 32: M&A Deals in A&D: Last 2 Years by Total Transaction Size (US$ Billion) and Number of Deals



Source: Aranca Research, Capital IQ and PitchBook

6.2 M&A Deals in A&D Industry (Most recent and significant M&A transactions in A&D in 2023)

Deal Date	Acquirer/ Investor	Target	Deal Value	Target Description
August 2023	BAE Systems PLC	Ball Aerospace	USD 5.55 billion	Manufactures spacecraft, components, and instruments for national defense, civil space, and commercial space applications.
August 2023	HEICO Corporation	Wencor Group	USD 2.05 billion	Manufacturer of aircraft parts and highly engineered aftermarket replacement components.
July 2023	Safran SA	Collins Aerospace	USD 1.80 billion	Provides a broad spectrum of advanced, battle-proven solutions in all domains, in both manned and unmanned platforms.
July 2023	L3Harris Technologies	Aerojet Rocketdyne	USD 5.12 billion	Develops rocket, hypersonic, and electric propulsive systems for space, defense, civil, and commercial applications.
June 2023	Auxo Investment Partners	Avon Machining, LLC	-	Manufactures and supplies precision parts for heavy-equipment industries, including aerospace and defense.
June 2023	KKR & Co. Inc. (NYSE: KKR)	CIRCOR International, Inc. (NYSE: CIR)	USD 1,717 million	Designs, manufactures and distributes flow and motion control products for military and defense, aerospace, and general industrial markets
June 2023	Barnes Group	MB Aerospace Holdings	USD 740 million	Manufacturer of critical engine components for the aerospace and defense markets.
June 2023	Arlington Capital Partners	Pegasus Steel, LLC	-	Provides cutting and forming of carbon sheet and heavy steel, stainless, and aluminum plates for defense contracting and other industries.
May 2023	Oshkosh Corporation (NYSE: OSK)	JBT AeroTech Corporation (John Bean Technologies)	USD 800 million	Provider of airport ground support equipment (GSE), gate equipment, military AGE, iOPS, aircraft tugs and other airport services
May 2023	NAI Group (Burdette Capital Management,	KSM Electronics Inc.	-	Provides electronic design, engineering, production, and contract manufacturing services to the security, medical,

	PPC Investment Partners)			communications, aerospace/avionics, automotive, military, and other industries
May 2023	HEICO Corporation (NYSE: HEI)	Wencor Group, LLC (Warburg Pincus)	USD 2,050 million	Provides design, distribution, and repair solutions for airlines, repair stations, OEMs, personal aircraft, and militaries worldwide
May 2023	VSE Aviation, Inc (VSE Corporation (NasdaqGS: VSEC))	Desser Holding Company LLC	USD 124 million	Distributes aviation tires, tubes, brakes, and batteries and offers component MRO services
April 2023	Fastener Distribution Holdings. LLC (Audax)	B.J.G Electronics, Inc. (Rockwood Equity, Ingleside Investors)	-	Supplies and manufacturers interconnect electromechanical products to the A&D industry, among others
April 2023	Akima (NANA Development Corporation)	Pinnacle Solutions, Inc.	-	Provides simulation and training solutions to the Department of Defense, training system contractors, and weapon system original equipment manufacturers
April 2023	Excelus Manufacturing Solutions (Sky Peak Capital)	Maclean Precision Machine Co., Inc.	-	Manufactures and sells machined parts to the aerospace, defense, and semiconductor industries
April 2023	BlueHalo (Arlington Management Employees)	Verus Technology Group, Inc.	-	Develops and manufactures counter-Unmanned Aerial Systems (c-UAS) products and security technology
March 2023	TransDigm Group	Calspan	USD 725 million	Provider of research and testing services for the aerospace and transportation industries.
March 2023	Signia Aerospace	Lifesaving Systems	-	Designer of helicopter hoist hooks, tethers, safety belts, water, and aviation rescue equipment.
Feb 2023	Cadrex Solutions	D&R Machine Company	-	Provider of CNC precision machining solutions for the aerospace and defense markets.

Feb 2023	First Aviation Services	Associated Aircraft Manufacturing	-	Manufacturer of a variety of aircraft parts and provides repair and overhaul services for aircraft electronics, avionics, hydraulics, and landing gear components.
Feb 2023	ATL Partners	Aero Accessories	-	Provider of aero accessories and repair services.
Feb 2023	TriMas	Weldmac	USD 44 million	Designer and manufacturer of metal fabricated components and assemblies for the aerospace, defense, and space launch end-markets.
Jan 2023	Townsend Street Capital	Swiss American Screw Products	-	Specializes in precision machining on Swiss-type equipment for aerospace and defense, medical, and other specialized industrial end markets.
Jan 2023	George Industries	Alexander Machine & Tool Company	-	Manufacturer of machined products intended for the defense, aerospace, and space markets.
Jan 2023	Trive Capital	Kittyhawk	-	Provider of hot isostatic pressing services for a variety of industries, including space, commercial aerospace, defense, and medical applications.

Source: S&P Capital IQ and Aranca Research

7. APPENDICES

7.1 Methodology

Our data are drawn from financial reports, published experts' interviews, secondary research reports, marketing and other publicly available information, such as company websites and press releases. Our cutoff date for publication was November 11, 2023.

A&D companies include those that generate the majority of revenue from aerospace or defense activities or, for diversified companies, those reportable segments that derive a majority of their revenue from A&D activities. The results are reported in US dollars.

The report also expresses analysts' point of view on topics affecting the A&D industry, developed through robust analysis of the market.

8. ENDNOTES

[1] https://www.aranca.com/assets/docs/M&AinAerospaceandDefenseReport_Nov2023.pdf, https://www.pwc.com/us/en/industries/industrial-products/library/aerospace-defense-review-and-forecast.html
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ABOUT Accelerated Manufacturing Brokers, Inc.

Accelerated Manufacturing Brokers, Inc. specializes in the sale of lower middle-market manufacturing companies throughout the United States. We help manufacturers get to the next phase of life. Sometimes, that's retirement, and sometimes, it's getting to the next level of growth.

Our mission is to help save U.S. manufacturing by transitioning ownership to the next generation of entrepreneurs. In addition to selling mature manufacturing companies, we've helped owners who have developed new, industry-disruptive technologies to partner with like-minded companies to facilitate sustained growth and commercialization of the new technologies.