Customer Services
With more than 3,000 operators in over 150 countries, Airbus Helicopters has a large fleet of some 12,000 in-service rotorcraft to support. As a result, customer service activities to support this large fleet generated 43% of Airbus Helicopters’ revenues for 2019.

Airbus Helicopters’ customer service activities consist primarily of maintenance, repairs, spare parts supply, training and technical support. In order to provide efficient worldwide service, Airbus Helicopters has established an international network of subsidiaries, authorised distributors and service centres.

Industrial Strategy
Implementing a new industrial model is one of the fundamental components of the Division transformation, enabling it to be more competitive, by controlling costs, while meeting the highest requirements in terms of quality and safety. The 3 pillars of the new industrial model are site specialisation, a new industrial architecture, and the deployment of flexible assembly lines.

Specialised sites contribute to anchoring quality and safety fundamentals while boosting Airbus Helicopters’ competitiveness. Like many manufacturers, one of the objectives is to produce each helicopter sub-assembly at a dedicated site. This means that the production sites are focused either on manufacturing operations with high added value or with a specific technological content. A good example of this transformation is the Paris-Le Bourget site, where all of Airbus Helicopters’ blade design, industrialisation and production activities will be concentrated. The specialisation of these sites makes it possible to avoid the duplication of skills and industrial means.

Thanks to the redistribution of operations and economies of scale, each site contributes to the optimised production of the entire range and becomes more resilient to market fluctuations.

The helicopter is divided into major sub-assemblies that can be produced, assembled, and tested in parallel, thus shortening the industrial cycle. The H160 is designed to be assembled in just 40 days thanks to this new architecture. Reducing end to end cycles is a key driver of competitiveness as well as an answer to customer requirements.

Rendering industrial system more modular through flexible assembly lines is an additional means to enhance its competitive edge on the market.

In a versatile market context, our assembly lines must be able to assemble several different types of helicopters. This multi-product capability will be a key factor in terms of flexibility.

1.1.4 Defence and Space
Airbus Defence and Space develops, produces and maintains cutting-edge products, systems and services, enabling governments, institutions and commercial customers to protect people and resources.

Airbus Defence and Space is organised in four Programme Lines: Military Aircraft; Space Systems; Connected Intelligence; and Unmanned Aerial Systems, which focus respectively on the following key activities:

Airbus Defence and Space is leveraging momentum in Franco-German cooperation and pursuing new European programme opportunities as it works to deliver its vision for Future Air Power. Key opportunities include FCAS, Eurodrone, Maritime Airborne Warfare System, special mission aircraft, and space situational awareness initiatives, among others. The Division is concurrently working to shape and address future secure, upgradeable, and dynamic network and Command and Control architecture requirements while continuing to evolve existing platforms and capabilities (e.g., Eurofighter Typhoon, A330 MRTT, A400M, C-295, predictive aircraft maintenance) for long-term competitiveness and value to future force structures;

Space: Airbus Defence and Space will leverage its position as Europe’s space leader to drive market competitiveness, working with European governments and institutions to ensure the long-term health of the entire European space industrial base. In tandem, Airbus Defence and Space will evolve its product portfolio (e.g., equipment, satellites, vehicles and infrastructure) and take a targeted approach to international expansion. In parallel, Airbus Defence and Space is developing end-to-end solutions and accelerating new products and services to strengthen its position across the space value chain;
– Digital Services and Secure Connectivity: Digital transformation and digital platforms will be a key enabler to unlocking greater value from our portfolio while providing new data-driven services and business models. The division will provide imagery intelligence, aircraft in-service support, and other services while also striving to be a leader in end-to-end secure connectivity across satellite, terrestrial, maritime, and airborne network and communication domains.

Globally, the Division intends to leverage its existing products and services, innovate new offerings, and strike selected strategic partnerships in order to strengthen its position in the US and other targeted international markets.

Market

Airbus Defence and Space is mainly active in governmental, institutional and commercial markets. As a general trend, defence budgets in Europe are expected to continue to grow, triggered by geopolitical tensions, heightened security risks and reinforced by recent discussions on NATO defence spending target of 2% of GDP. In addition, the implementation of the European Defence Action Plan of November 2016 was bolstered by the joint declaration published in July 2017 by the French and German governments outlining the intention to strengthen European defence, then by the agreement in 2018 to develop jointly the FCAS, the European “MALE” (Medium Altitude Long Endurance) drone and the Future Maritime Airborne Warfare System ("FMAWS"). Together, these may provide new sales opportunities through members’ collaborative procurement mechanisms. Market access outside the home countries may be subject to restrictions or preconditions such as national content or local industrial participation. Nevertheless, Airbus Defence and Space, in conjunction with Airbus, is well-placed to benefit from growth in defence expenditure. The market may be influenced in the short-term by a potential softening of the global economy and Brexit.

Military Aircraft

Customers
The Military Aircraft Programme Line with its combat aircraft, military transport and mission aircraft along with related services, supplies the public sector, mainly armed forces.

Customer relationships in this segment are characterised by their long-term, strategic nature and long decision-making cycles. Once a contract is signed its life span including considerable services business often lasts for decades. Beyond a strong foothold in home countries, the customer base is increasingly global, in particular due to the success of the A330 MRTT and C295 programmes.

The turbulence created by changes in the US administration and the Russian situation is gradually leading to a shift in importance of defence in Europe. The commitment to go towards 2% of the GDP is being gradually pursued and should lead to new optimism for the sector. The Franco-German declaration in summer 2017 and the establishment of “Permanent Structured Cooperation (PESCO)” by the European Union on 11 December 2017 are also clear signals in this direction. During the Franco-German Defence and Security Council in October 2019, France and Germany committed to strengthen their cooperation and agreed to contract the demonstrator phase for FCAS early next year.

Competitors

The market for military aircraft is dominated by large- and medium-sized American and European companies capable of complex system integration. Among the competitive factors are affordability, technical and management capability, the ability to develop and implement complex, integrated system architectures and the ability to provide solutions to customers. In particular dedicated mission aircraft, such as heavy tankers, are derived from existing aircraft platforms. Adapting them requires thorough knowledge of the basic airframe, which generally only the aircraft manufacturer possesses. The skills necessary for the overall systems integration into the aircraft are extensive and the number of players in the world market is very limited.

The main competitors in military transport and mission aircraft include Boeing, Embraer, Lockheed Martin, Northrop Grumman, Leonardo, UAC, Kawasaki, AVIC and Antonov.

Heavy military transport has historically been driven by US policy and budget decisions and has therefore been dominated by US manufacturers and split in strategic and tactical aircraft segments. The A400M represents the Company’s entry into this market, at a time when nations are expected to begin replacing their existing fleets. The aircraft is designed to disrupt the divide between strategic and tactical transport by offering both capabilities in one. This saves both time and cost as you can fly a long range strategic aircraft into a tactical zone of operation.

In terms of revenues, Airbus Defence and Space is the largest continental European combat aircraft manufacturer. The major combat aircraft activities are taking place through the contribution to the Eurofighter Typhoon programme jointly with the consortium partner companies BAE Systems and Leonardo. Competitors in the segment of combat aircraft include Boeing, Dassault, Lockheed Martin, Saab and UAC. Eurofighter is a key asset which for customers will act as a capability bridge to FCAS, in which it will also be seamlessly integrated.

Market Trends

The sale of aircraft is expected to remain stable in the transport and special mission aircraft segments and could grow for the heavy transport segment, where the A400M occupies a unique position.

After-sales services are an important business for Military Aircraft and are undergoing strong growth in line with the deliveries of A400M and A330 MRTT on top of the existing robust revenue stream associated with Eurofighter in-service support. The agreement signed between France and Germany in April 2018 to jointly develop and procure the FCAS and the Future Maritime Airborne Warfare System will also contribute to safeguarding critically-needed future European defence capabilities. During the Franco-German Defence and Security Council in October 2019, France and Germany agreed to contract the demonstrator phase for FCAS in 2020. For the latest update, see section 1.3 below.

Space Systems

Governmental Sector: Satellites, Space Infrastructure, Launchers, Deterrence

In the public market for earth observation, science / exploration and navigation satellites, competition in Europe is organised on a national and multinational level, primarily through the European Space Agency (“ESA”), the European Commission
(EC) and national space agencies. Space Systems, through its
Programme Unit Earth Observation, Navigation and Science, is
a major actor in these respective segments and the recognised
European leader on ESA science programmes.

Decisions at the latest ESA Ministerial Conferences paved the
way for future European programmes in which Airbus Defence
and Space does or may seek to participate. There is also
important export demand for earth observation systems, of
which the Company is the world's leading provider. The export
market is expected to continue growing over the medium-term
driven by the demand coming from new governmental operators
on top of the replacement of existing assets.

On the military customer side, demand for telecommunication
and observation satellites has increased in recent years.

The equipment segment can rely on a stable European market,
with potential growth to come from developing space countries
as well as the US.

The orbital infrastructure segment comprises manned and
unmanned space systems mainly used for space exploration,
*i.e.* scientific missions. Demand for orbital infrastructure systems
originates solely from publicly funded space agencies, in
particular from ESA, NASA, Roscosmos (Russia) and JAXA
(Japan). Such systems are typically built in cooperation with
international partners. Continuing support to the operations of
the International Space Station (ISS), together with vehicle and
equipment development programmes and services such as the
Service Module for NASA's Orion spacecraft, constitutes the
predominant field of activity in this segment, and Airbus Defence
and Space leads the European contribution on industrial level as
prime contractor. As the future exploration plans of the various
national space agencies take shape with a growing focus on a
sustainable return to the Moon, Airbus Defence and Space is
well-positioned to take a leading role in providing vehicles,
platforms and services to support these ambitious endeavours.

The joint venture ArianeGroup is prime contractor for the
Ariane 5 launcher system. ArianeGroup is contracted for the
development of the future Ariane 6 launcher and is the prime
contractor responsible for the development, manufacturing and
maintenance of the French deterrence systems.

**Commercial Sector: Telecommunications
Satellites, Launch Services**

The commercial telecommunication satellite market is highly
competitive, with customer decisions primarily based on price,
technical expertise and track record. The main competitors for
telecommunications satellites are Boeing, Lockheed Martin,
MAXAR and Northrop Grumman in the US, Thales Alenia Space
in France and Italy, Information Satellite Systems Reshetnev
in Russia, and CASC in China. The market for commercial
gestationary telecommunications satellites has experienced
a down turn since 2017 and is expected to gradually recover in
the mid-term. In parallel, the demand for large constellations of
smaller telecom satellites in Low Earth Orbit has increased
dramatically in the last few years.

The market for commercial launch services continues to evolve.
Competitive pressure is increasing in light of new entrants into the
market. ArianeGroup provides a complete range of launch
services with the Ariane, Soyuz, and Vega launchers. Competitors
for launch services include SpaceX, ULA, ILS and CGWIC. The
accessible market to Arianespace (a subsidiary of ArianeGroup)
for commercial launch services for geostationary satellites is
expected to remain stable at around 20 payloads per year. However,
due to various factors (such as technology advances,
increasing competition and consolidation of customers), the
figure remains volatile. This market does not include institutional
launch services for the US, Russian or Chinese military and
governmental agencies.

In 2015, Airbus Defence and Space announced the creation of
OneWeb Satellites JV, an equally owned company with
OneWeb that designs and builds a constellation of satellites for
its unique customer OneWeb. The satellite constellation aims to
provide competitive global internet access. This participation is
entrepreneurial in nature and is meant to drive innovation in a
new space market – an area that is set to expand dramatically in
coming years. In 2017, OneWeb Satellites JV broke ground on the
world's first state of the art high-volume satellite manufacturing
facility in Exploration Park, Florida, and inaugurated its serial
production line for the assembly, integration, and test of
OneWeb’s first satellites in Toulouse. In 2018, design of the pilot
satellites was completed. The launch of the first satellites in 2019
allowed validation of the design.

**Connected Intelligence**

The Connected Intelligence programme line delivers satellite
and terrestrial communication systems, information and security
solutions like Skynet5. It also manages intelligence services from
radar and optical data imagery, and provides cyber defence
support, cipher solutions and training to its institutional and
commercial customers.

This programme line is divided into five programme units:
Intelligence, Secure Communications, Cyber Security, Security
Solutions and Secure Land Communications.

Through **Intelligence**, Airbus Defence and Space provides
commercial satellite imagery, Command, Control,
Communications, Computers, Intelligence, Surveillance
and Reconnaissance (C4ISR) systems and related services.
Intelligence is amongst the largest players in the satellite imagery
(optical and radar) market. The programme unit provides both
optical and radar-based geo-information services to customers
including international corporations, governments and authorities
around the world. The demand for satellite imagery is growing
in commercial markets as many companies see geospatial data
as key information for their business development.

Through its **Secure Communications** programme unit, Airbus
Defence and Space is also a leader in governmental satellite
communications. The programme unit offers a full portfolio of
mobile and fixed satellite communication and secure terrestrial
communications solutions for application at sea, on land
and in the air. It provides armed forces and governments in
the UK, Germany, France and Abu Dhabi with secure satellite
communications.

**Airbus CyberSecurity**: As a leading provider of security
operation centres, incident response services, key management,
cryptography and high-security national solutions and consulting
and training services, Airbus Defence and Space has a long
track record in providing the most sensitive secure IT and
data handling and training solutions to defence and security
customers throughout France, Germany, the UK and other NATO
countries.
Security Solutions: As a world-leading system integrator for border security, maritime surveillance, critical national infrastructure protection and site security services, Security Solutions’ aim is to build on these assets in operation, thereby fulfilling the requirements of the security market today and in the future with the latest technology and most attractive service packages.

Secure Land Communications offers advanced communication and collaboration solutions enabling its customers to gather process and deploy intelligence. Its portfolio is tailored to the needs of professionals from Public Safety and Transport, Utility and Industry (TU). As the European leader and a key international player, Secure Land Communications has customers in more than 80 countries.

Unmanned Aerial Systems

Customers

Unmanned Aerial Systems could lead to diversification into services-driven markets. It is also a sector in which Europe has a strong need for investment, which could set the stage for new cooperation programmes. France, Germany, Italy and Spain have signaled their intention to cooperate on a medium altitude, long endurance (MALE) UAS. After Airbus Defence and Space and its partners finalized the two-year definition study of the system end of 2018, a EuroMulti proposal (including options) has been submitted in 2019. Contract negotiations are ongoing.

Competitors

With regards to platforms, Chinese, Israeli and US firms are well established in the UAS market segment, along with other European companies such as BAE Systems, Leonardo and Thales, who are competing for new European projects. The market itself features strong growth with significant opportunities in Europe, the US and Asia Pacific.

Market Trends

UAS have a very promising growth potential. Market structures in this segment are not clearly set out yet and will see some movement, including a new European collaborative programme. Services verticals will offer increasingly interesting prospects as the market evolves.

Products and Services

Military Aircraft

A400M — Heavy military transport. The A400M is designed to be the most capable new generation airlifter on the market today. It is designed to meet the needs of the world’s armed forces and other potential operators for military, humanitarian and peacekeeping missions in the 21st century. The A400M is designed to do the job of three different types of military transport and tanker aircraft by providing different capabilities. Tactical (short to medium range airlifter capability with short, soft and austere field operating performance), strategic transport (longer range missions for outsized loads) and tactical tanker.

A total of 174 aircraft have been ordered so far by the seven launch customer nations Belgium, France, Germany, Luxembourg, Spain, Turkey, the UK and one export customer, Malaysia. Type Certificate and Initial Operating Clearance were achieved in 2013. Since then, 88 units have been delivered to six nations as of 31 December 2019. The A400M is already deployed in operations since 2014. In 2019, a contract amendment was signed with launch customers on the Global Rebaselining of the A400M programme, under which all parties have agreed to update the production plan and revise the capability roadmap. The programme is now delivering in line with the revised schedule.

Multi-role tanker transport — A330 MRTT. The A330 MRTT, a derivative of the Airbus A330-200 family, offers military strategic air transport as well as air-to-air refueling capabilities at the same time. Its large fuel tank capacity (111t) inherited from the commercial platform, allows to dispense fuel in flight to many receiver aircraft without the need for any additional fuel tanks. This allows the entire lower deck cargo bay compartment to be available for freight (up to 37t), with the possibility to transport up to 27 standard civil LD3 containers, or up to eight 436L military pallets as well as at the same time the capacity to transport up to 300 troops in the upper deck cabin compartment, with the high level of comfort of a civil airliner. The A330 MRTT is equipped with state of the art refueling systems, including an Aerial Refueling Boom System (ARBS) and under-wing refueling pods and in the upcoming months with the Automatic Air-To-Air Refuelling (AAR) capability. At the end of 2019, 60 A330 MRTT have been ordered by thirteen 13 Nations (more than 94% market share over the past 10 years, excluding the US), with 42 platforms already delivered and operating worldwide, accumulating more than 200,000 flight hours in operation.

Eurofighter combat aircraft. The Eurofighter multi-role combat aircraft (also referred to as Typhoon) has been designed to enhance fleet efficiency through a single flying weapon system capable of fulfilling both air-to-air and air-to-ground missions.

The Eurofighter Jagdflugzeug GmbH shareholders are Airbus Defence and Space (46% share), BAE Systems (33% share) and Leonardo (21% share). With regard to series production, the respective production work shares of the participating partners within the Eurofighter consortium stand at 43% for Airbus Defence and Space, 37.5% for BAE Systems and 19.5% for Leonardo. Airbus Defence and Space develops and manufactures the center fuselage and the right wing and leading edge slats for all aircraft, and is in charge of final assembly of aircraft ordered by the German, Spanish and Austrian air forces. In addition, Airbus Defence and Space is responsible for the development of the flight control system and the identification and communication sub-systems.

At the end of 2019, a total of 623 Eurofighter Typhoon aircraft had been ordered by nine customers (UK, Germany, Italy, Spain, Austria, Saudi Arabia, Oman, Kuwait, and Qatar), with a total of 570 aircraft delivered. Export opportunities are being actively developed together with the other shareholders of the Eurofighter consortium.

C295 — Light and Medium military transport/mission aircraft. The C295 is the work horse of tactical military transport, conducting logistical missions including the transport and delivery of personnel and cargo as well as medical evacuations. The aircraft are deployed in demanding operational environments and have been used for humanitarian missions. The aircraft are also offered as a dedicated mission aircraft with configurations beyond the traditional airlifter version, for example maritime patrol and anti-submarine warfare, airborne early warning and control, firefighting and intelligence surveillance reconnaissance.
Airbus Defence and Space offers and provides various services for and related to military aircraft. Throughout the life-time of our aircraft, Military Aircraft Services includes integrated logistics support, in-service support, maintenance, upgrades, training or flight hour service. For example, the A330 MRTT contract with the UK Ministry of Defence through the AirTanker consortium includes alongside 14 aircraft the provision for all necessary infrastructure, training, maintenance, flight management, fleet management and ground services to enable the Royal Air Force to fly air-to-air refuelling and transport missions worldwide. Services support legacy aircraft beyond those types currently in production at Airbus Defence and Space, conducting upgrade programmes for aircraft such as the Tornado and P-3 Orion. Airbus Defence and Space maintains a network of Maintenance, Repair and Overhaul centers strategically located throughout the world for greater proximity to the customer, for example in Seville or Manching in Europe, in Mobile, Alabama (US) or at subsidiaries in Saudi Arabia or Oman.

Space Systems

Manned Space Flight. Airbus Defence and Space has been the prime contractor for the European part of the International Space Station (ISS). This includes the development and integration of Columbus, the pressurised laboratory module on ISS with an independent life-support system successfully in orbit since 2007. It provides a full-scale research environment under microgravity conditions (material science, medicine, human physiology, biology, Earth observation, fluid physics and astronomy) and serves as a test-bed for new technologies.

In 2015, ESA awarded Airbus Defence and Space a contract to handle the engineering support of the European components of the ISS, which represents a key part of the ISS operational activities. Airbus Defence and Space was also the prime contractor for the development and construction of the Automated Transfer Vehicle (ATV) cargo carrier. The expertise gained on the ATV positioned Airbus Defence and Space to become the prime contractor for the European service module of NASA’s next generation Orion manned capsule, with the first module delivered end of 2018 and the second already under manufacturing.

Launch services. Airbus Defence and Space is active in the field of launch services through its ArianeGroup joint venture. ArianeGroup is responsible for the coordination and programme management of civil activities of the launcher business and relevant participations that have been transferred. ArianeGroup owns a total 74% stake in Arianespace, 46% of Starsem and 51% of Eurockot, providing a complete range of launch services with the Ariane, Soyuz, Vega and Rocket launchers.

Commercial launchers. ArianeGroup manufactures launchers and performs research and development for the Ariane programmes. Member States, through ESA, fund the development cost for Ariane launchers and associated technology. Airbus Defence and Space has been the sole prime contractor for the Ariane 5 system since 2004. In December 2014, the Ariane 6 programme was decided by ESA ministerial conference with an approval of the joint Airbus Defence and Space and Safran concept. In addition, a new industrial set-up was announced with the creation of ArianeGroup between the two main Ariane manufacturers. This vertical integration secures the future by cutting costs and being more competitive. Ariane 6 is targeted to be launched in 2020.

Telecommunication satellites. Airbus Defence and Space produces telecommunication satellites used for both civil and military applications, such as television and radio broadcasting, fixed and mobile communication services and Internet broadband access. Current Airbus Defence and Space geostationary telecommunication satellites are based on the Eurostar family of platform, including all-electric variant. In 2018, Airbus Defence and Space was selected by Eutelsat to build the HotBird new generation satellites, two sophisticated telecom satellites based on Eurostar Neo platform, the new flagship generation product for Airbus Telecom large Geo Satellites. Airbus Defence and Space also develops the Eutelsat Quantum telecommunication satellite, the first satellite that can be fully reconfigured in orbit through its flexible antennae and repeater, and recently added to its product line OneSat, a medium-size telecommunications satellite also fully reconfigurable in orbit. OneSat has been already selected by Inmarsat, who ordered three of them in 2019.

Observation and scientific / exploration satellites. Airbus Defence and Space supplies Earth observation satellite systems including ground infrastructures for both civil and military applications. Customers can derive significant benefits from the common elements of Airbus Defence and Space’s civil and military observation solutions, which allow the collection of information for various applications, such as cartography, weather forecasting, climate monitoring, agricultural and forestry management, mineral, energy and water resource management, as well as military reconnaissance and surveillance.

Airbus Defence and Space also produces scientific satellites and space infrastructure, which are tailor-made products adapted to the specific requirements of the mostly high-end mission assigned to them. Applications include astronomical observation of radiation sources within the Universe, planetary exploration and Earth sciences. Airbus Defence and Space designs and manufactures a wide range of highly versatile platforms, optical and radar instruments and equipment. For example, Airbus Defence and Space contributed to the scientific community with the launches of the Sentinel-1B radar, Sentinel-2A and LISA pathfinder. It also signed a major contract to develop and build the JUICE spacecraft, ESA’s next life-tracker inside the Solar System. JUICE will study Jupiter and its icy moons.

Navigation satellites. Airbus Defence and Space plays a major industrial role in the “Galileo” European navigation satellite system, which delivers signals enabling users to determine their geographic position with high accuracy and is expected to become increasingly significant in many sectors of commercial activity. Airbus Defence and Space was responsible for the Galileo in-orbit validation phase (IOV) to test the new satellite navigation system under real mission conditions. The IOV phase covered the construction of the first four satellites of the constellation and part of the ground infrastructure for Galileo. After the successful launch of the first four Airbus Defence and Space Galileo IOV satellites in 2011 and 2012, this early constellation was successfully tested in orbit and handed over to the customer in 2013. Airbus Defence and Space is playing an active role in the Galileo full operation capability phase.
(FOC) with a nearly 50% work share, including the FOC ground control segment and providing the payloads for the first 22 FOC satellites through its subsidiary SSTL, and has been selected by ESA in 2018 as the prime contractor to develop EGNOS V3, the next generation of the European Satellite Based Augmentation System (SBAS) planned to provide the aviation community with advanced Safety of Life services and new services to Maritime and Land users.

**Spacecraft Equipment.** Airbus Defence and Space offers an extensive portfolio of embedded subsystems and equipment for all types of space applications: telecommunications, Earth observation, navigation, scientific and space exploration missions, manned spaceflight and launchers.

**French deterrence systems.** ArianeGroup as prime contractor holds the contracts with the French State for the submarine-launched deterrent system family.

**Connected Intelligence**

*Intelligence* is a designer and supplier of C4I systems (Command, Control, Communications, Computers and Intelligence), which provides information systems and solutions to armed forces worldwide to support land, air and sea operations, assuring information superiority and supporting decision making at all levels of the command chain. Competitors in this area largely come from European or American based defence companies.

With the very-high-resolution twin satellites Pleiades 1A and 1B, SPOT 6 and SPOT 7, Airbus Defence and Space’s optical satellite constellation offers customers a high level of detail across wide areas, a highly reactive image programming service and unique surveillance and monitoring capabilities. Airbus Defence and Space is currently producing four Pleiades Neo, Airbus’ new very high resolution satellites. They will join the already large Airbus constellation of optical and radar satellites and will offer enhanced performances and the highest reactivity in the market thanks to direct access to the data relay communication system, known as SpaceDataHighway.

**Secure Communications** provides armed forces and governments with secure satellite communications. For example in the UK, Airbus Defence and Space delivers in the frame of the “Skynet 5 programme” tailored end-to-end in-theatre and back-to-base communication solutions for voice, data and video services, ranging from a single voice channel to a complete turnkey system incorporating terminals and network management. This contract, pursuant to which Airbus Defence and Space owns and operates the UK military satellite communication infrastructure, allows the UK MoD to place orders and to pay for services as required.

**CyberSecurity** provides companies, critical national infrastructures and government and defence organisations with reliable, high-performance products and services to detect, analyze and respond to increasingly sophisticated cyber attacks. The market growth is driven by an exponential increase in cyber-attacks, the increased use of connected assets and global digital transformation. Customers are governments and private companies with a high grade security requirement.

**Security Solutions** answers manifold operational needs in security and critical infrastructure protection by providing adaptable solutions and services needed to achieve everyday missions

**Secure Land Communications** includes infrastructures, devices, applications and services based on Tetra, Tetrapol and Broadband technologies.

**Unmanned Aerial Systems**

In the field of UAS, Airbus Defence and Space is active at both product and service level. Airbus Defence and Space is the leading UAS service provider for the German armed forces meeting their MALE Intelligence, Surveillance and Reconnaissance needs in the operational theatre. These interim solutions, based on non-proprietary MALE systems, will be replaced by a new generation European MALE Remotely Piloted Aircraft System (RPAS) where Airbus Defence and Space is working with its European partners. Airbus Defence and Space also provides mini-UAS to the French armed forces and selected export customers and the KZO (Kleinflugzeug für Zielortung) UAS to the German armed forces. It is developing the solar-powered Zephyr for both military and civil applications such as relay stations for internet provision to remote or sparsely populated regions.

**Production**

Airbus Defence and Space is headquartered in the Munich region. The main engineering and production facilities of the Division are located in France (Paris region and southwest France), Germany (Bavaria, Baden-Württemberg and Bremen), Spain (Madrid region and Andalusia) and the UK (southern England and Wales). In addition, Airbus Defence and Space operates a global network of engineering centres and offices in more than 80 countries.

**MBDA**

The Company’s missile business, in addition to the ArianeGroup joint venture, derives from its 37.5% stake in MBDA (a joint venture between the Company, BAE Systems and Leonardo), MBDA offers missile systems capabilities that cover the whole range of solutions for air dominance, ground-based air defence, maritime superiority and battlefield engagement. Beyond its role in European markets, MBDA has an established presence in export markets like Asia, the Gulf region and Latin America.

The broad product portfolio covers all five principal missile system categories: air-to-air, air-to-surface, surface-to-air, anti-ship and surface-to-surface. MBDA’s product range also includes a portfolio of airborne countermeasures such as missile warning and decoy systems, airborne combat training and counter-improved explosive devices (IED) and countermine solutions. The most significant programmes currently under development are the next generation of the successful MICA (Missile d’interception, de combat et d’autodéfense) air-to-air missile called MICA NG, the network enabled precision surface attack SPEAR missile and the “Common Anti-Air Modular Missile Extended Range (CAMM-ER)”, which is an air-to-air missile family with land and naval launched applications, the Anglo-French joint initiative for a “Future Cruise / Anti-Ship Weapon (FC/ASW)” aiming to replace prior generation cruise-
missiles as well as Anti-ship weapons for the two nations. Recent product upgrades also include the Aster Block 1 NT, the air & missile defence family of systems for France and Italy, the Sea Venom/ANL (Anti-Navire Léger) anti-ship missile for the UK and French navies’ helicopters and the portable medium range battlefield “Missile Moyenne Portée (MMP)”. Further activities include preparations for the ground based air defence system TLVS (Taktisches Luftverteidigungssystem) (based on MEADS (Medium Extended Air Defence System)) for Germany jointly with Lockheed Martin, the production of various aircraft packages for Eurofighter Typhoon and Rafale as well as equipment of various frigates and corvettes with systems and ammunition.

ArianeGroup
Airbus Defence and Space is active in the field of launchers and launch services through its ArianeGroup joint venture, which prior to July 2017 was named Airbus Safran Launchers (ASL).

1.1.5 Investments

Dassault Aviation
The Company entered into an agreement with the French State pursuant to which the Company:
– grants the French State a right of first offer in case of the sale of all or part of its shareholding in Dassault Aviation; and
– commits to consult with the French State prior to making any decision at any shareholders’ meeting of Dassault Aviation.

1.1.6 Insurance

The Company’s Insurance Risk Management function (“IRM”) is established to proactively and efficiently respond to risks that can be treated by insurance techniques. IRM is responsible for all corporate insurance activities and related protection for the Company and is empowered to deal directly with the insurance and re-insurance markets via the Company’s inhouse broker entity. IRM’s continuous task in 2019 was to further implement and improve efficient and appropriate corporate and project-related insurance solutions.

IRM’s mission includes the definition and implementation of the Company’s strategy for insurance risk management to help ensure that harmonised insurance policies and standards are in place for all insurable risks worldwide for the Company. A systematic review, monitoring and reporting procedure applicable to all Divisions is in place to assess the exposure and protection systems applicable to all the Company’s sites. The Company’s insurance programmes cover high risk exposures related to its assets and liabilities.

Asset and liability insurance policies underwritten by IRM for the Company cover risks such as property damage, business interruption, cyber, aviation and non-aviation general and product liability. IRM also provides a Group insurance policy for Supervisory and Managing Board members and certain other employees of the Company. The Company follows a policy of seeking to transfer the insurable risk of the Company to external insurance markets at reasonable rates, on customised and sufficient terms and limits as provided by the international insurance markets.

The insurance industry remains unpredictable and most Group insurance policies are renewed on an annual basis. There may be future demands to change scope of coverage, premiums and deductible amounts. Thus, no assurance can be given that the Company will be able to maintain its current levels of coverage nor that the insurance policies in place are adequate to cover all significant risk exposure of the Company.

1.1.7 Legal and Arbitration Proceedings

The Company is involved from time to time in various legal and arbitration proceedings in the ordinary course of its business, the most significant of which are described below. Other than as described below, the Company is not aware of any material governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened), during a period covering at least the previous twelve months which may have, or have had in the recent past significant effects on the Company’s or Airbus SE’s financial position or profitability.

Regarding the Company’s provisions policy, the Company recognises provisions for litigation and claims when (i) it has a present obligation from legal actions, governmental investigations, proceedings and other claims resulting from past events that are pending or may be instituted or asserted in the future against the Company, (ii) it is probable that an outflow of resources embodying economic benefits will be required to settle such obligation and (iii) a reliable estimate of the amount of such obligation can be made. Although the Company believes that adequate provisions have been made to cover current or
contemplated general and specific litigation and regulatory risks, no assurance can be provided that such provisions will be sufficient. For the amount of provisions for litigation and claims, please refer to the “— Notes to the IFRS Consolidated Financial Statements — Note 24: Provisions, Contingent Assets and Contingent Liabilities”.

WTO

Although the Company is not a party, the Company is supporting the European Commission in litigation before the WTO. Following its unilateral withdrawal from the 1992 EU-US Agreement on Trade in Large Civil Aircraft, the US lodged a request on 6 October 2004 to initiate proceedings before the WTO. On the same day, the EU launched a parallel WTO case against the US in relation to its subsidies to Boeing.

Following a series of interim WTO panel decisions, in May 2018 the WTO held that the EU achieved compliance in respect of the majority of the subsidies at issue but considered that some remaining obligations required adjustments. The Company and the EU took corrective actions that were reviewed by a WTO panel. The decision of that panel is currently being appealed. In the meantime, the US requested authority to impose countermeasures worth US$ 11.2 billion per year, commensurate with the estimate of the adverse effects caused by the EU subsidies. The WTO did not agree with the US estimate and authorised the US to impose US$ 7.5 billion in annual countermeasures. The United States Trade Representative ("USTR") imposed tariffs on a range of imports to the US from the EU including 10% on the importation of large civil aircraft from the EU. Those tariffs went into effect on 18 October 2019. On 14 February 2020, the USTR announced the US is increasing the additional duty rate imposed on aircraft imported from the EU to 15%, effective 18 March 2020.

The tariffs could have a material impact on the Financial Statements, business and operations of the Company. At this stage it is too early to determine the full extent of any financial impact on the Company. Duties on the importation of Airbus products into the US could result in (i) increased costs for the aerospace and airline industries as well as other industries that rely on air transport, (ii) weakening demand for new aircraft and negatively affecting the financial condition of air carriers and lessors, (iii) decisions to defer, reject or reschedule the delivery of new aircraft or limit the routes upon which new aircraft will be used, (iv) increased costs to consumers, (v) retaliation by the EU with its own import duties to be applied to US products, and/or (vi) damage to the Company’s business or reputation via negative publicity adversely affecting the Company’s prospects in the commercial market place.

Several years of proceedings also identified significant unlawful support to Boeing. In its most recent decision on the matter in March 2019, the WTO found that the steps by the US to address US subsidies to Boeing were inadequate. The WTO Appellate Body also found that additional US federal and state programmes, such as the Foreign Sales Corporation ("FSC") and Washington State tax reductions constitute illegal subsidies. Consequently, the EU initiated its request for the authorisation of annual countermeasures amounting to up to US$ 12 billion and published a preliminary list of products from the US on which the EU may take countermeasures, which includes US aircraft. The actual amount of duties to which the EU may be entitled will be determined at the conclusion of WTO arbitration proceedings. The imposition of equivalent or greater tariffs on aircraft imports into Europe is likely.

Exact timing of further steps in the WTO litigation process is subject to further rulings and to negotiations between the US and the EU.

GPT

In August 2012, the UK Serious Fraud Office ("SFO") announced that it had opened a formal criminal investigation in relation to GPT Special Project Management Ltd ("GPT"), a subsidiary operating in Saudi Arabia that the Company acquired in 2007. The investigation relates to issues initially raised by a whistleblower concerning contractual arrangements originating prior to GPT’s acquisition and continuing thereafter. The Company has engaged with the SFO throughout and continues to actively cooperate with the investigation.

Eurofighter Austria

In 2017, the Austrian Federal Ministry of Defence raised criminal allegations against Airbus Defence and Space GmbH and Eurofighter Jagdflugzeug GmbH for wilful deception and fraud in the context of the sale of the Eurofighter aircraft to Austria and respective damage claims. After the Austrian Federal Ministry of Defence raised its criminal allegations, the Austrian public prosecutor opened an investigation against Airbus Defence and Space GmbH, Eurofighter Jagdflugzeug GmbH and former and current employees of the two entities including related to the corresponding offset obligations. The Company has filed several submissions to the Austrian Public Prosecutor in response to the allegations of deception in the procurement of Eurofighter combat aircraft made by the Austrian Defence Minister. The Company is cooperating fully with the authorities.

Investigation by the UK SFO, France’s PNF, US Departments of State and Justice and Related Commercial Litigation

The Company reached final agreements ("the agreements") with the French Parquet National Financier ("PNF"), the UK Serious Fraud Office ("SFO"), and the US Department of Justice ("DoJ") resolving the authorities’ investigations into allegations of bribery and corruption, as well as with the US Department of State ("DoS") and the DoJ to resolve their investigations into inaccurate and misleading filings made with the DoS pursuant to the US International Traffic in Arms Regulations ("ITAR"). The agreements were approved and made public on 31 January 2020.

Under the terms of the agreements, the Company has agreed to pay penalties of € 3,597,766,786 plus interest and costs to the French, UK and US authorities. This is recognised in the Company’s 2019 accounts. The settlements with each authority are as follows: PNF € 2,083,137,455, the SFO € 983,974,311, the DoJ € 526,150,496 and the DoS € 9,009,008 of which € 4,504,504 may be used for approved remedial compliance measures.