Dependence on Key Suppliers and Subcontractors

The Company is dependent on numerous key suppliers and subcontractors to provide it with the raw materials, parts, assemblies and systems that it needs to manufacture its products.

The Company relies upon the good performance of its suppliers and subcontractors to meet the obligations defined under their contracts. Supplier performance is continually monitored and assessed so that supplier development programmes can be launched if performance standards fall below expectations.

In case of supplier non-performance a systematic review and application of contractual liabilities linked to contract execution allows the Company to mitigate its financial exposure due to the supplier non-performance. The Company also implements performance improvement agreements with suppliers to incentivise suppliers to sustainably restore contractual performance levels.

In addition, the Company benefits from its inherent flexibility in production lead times to compensate for a limited non-performance of suppliers, protecting the Company’s commitments towards its customers. In certain cases, dual sourcing is utilised to mitigate the risk. However, no absolute assurance can be given that these measures will fully protect the Company from non-performance of a supplier which could disrupt production and in turn may have a negative effect on its financial condition and results of operations.

Changes to the Company’s production or development schedules may impact suppliers so that they initiate claims under their respective contracts for financial compensation. However the robust, long-term nature of the contracts and a structured process to manage such claims, limits the Company’s exposure. Despite these mitigation measures, this could still result in a negative impact on the financial condition and results of operations of the Company.

As the Company’s global sourcing footprint extends, some suppliers (or their sub-tier suppliers) may have production facilities located in countries that are exposed to socio-political unrest or natural disasters which could interrupt deliveries. Country-based risk assessment (including of applicable laws and regulations) is performed by the Company to monitor such exposures and to ensure that appropriate mitigation plans or fall-back solutions are available for deliveries from suppliers considered to be at risk. Despite these measures, the Company remains exposed to interrupted deliveries from suppliers impacted by such events and/or regulations, which could have a negative effect on the financial condition and results of operations of the Company.

Suppliers (or their sub-tier suppliers) may also experience financial difficulties requiring them to file for bankruptcy protection, which could disrupt the supply of materials and parts to the Company. However, financial health of suppliers is analysed prior to selection to minimise such exposure and then monitored during the contract period to enable the Company to take action to avoid such situations. In exceptional circumstances, the Company may be required to provide financial support to a supplier and therefore face limited credit risk exposure. If insolvency of a supplier does occur, the Company works closely with the appointed administrators to safeguard contractual deliveries from the supplier. Despite these mitigation measures, the bankruptcy of a key supplier could still have a negative effect on the financial condition and results of operations of the Company.

Industrial Ramp-Up

As a result of the large number of new orders for aircraft recorded in recent years, the Company is in the process of accelerating its production in order to meet the agreed upon delivery schedules for such new aircraft. The Company’s ability to further increase its production rate will be dependent upon a variety of factors, including execution of internal performance plans, availability of raw materials, parts (such as aluminium, titanium and composites) and skilled employees given the high demand by the Company and its competitors, conversion of raw materials into parts and assemblies, and performance by suppliers and subcontractors (particularly suppliers of engines and buyer-furnished equipment) who may experience resource or financial constraints due to ramp-up. Management of such factors is also complicated by the development of new aircraft programmes in parallel, across Airbus and the two Divisions, which carry their own resource demands. Therefore, failures relating to any or all of these factors could lead to missed or delayed delivery commitments, and depending on the length of delay in meeting delivery commitments, could lead to additional costs and customers’ rescheduling or terminating their orders. The associated risks may increase as the Company and its competitors announce further production rate increases. Significant efforts have been made to improve supply chain stability and performance. Specific areas of risk with suppliers of engines and of cabin equipment continue to be carefully managed.
Technologically Advanced Products and Services

The Company offers its customers products and services that are technologically advanced, the design, manufacturing, components and materials utilised can be complex and require substantial integration and coordination along the supply chain. In addition, most of the Company’s products must function under demanding operating conditions. Throughout the lifecycle of our products, the Company performs checks and inspections, which may result in modifications, retrofits or other corrective actions each of which may have an adverse effect on production, operations, in-service performance or financial condition. Even though the Company believes it employs sophisticated design, manufacturing and testing practices, there can be no assurance that the Company’s products or services will be successfully developed, manufactured or operated or that they will perform as intended.

Certain of the Company’s contracts require it to forfeit part of its expected profit, to receive reduced payments, to provide a replacement launch or other products or services, to provide cancellation rights, or to reduce the price of subsequent sales to the same customer if its products fail to be delivered on time or to perform adequately. No assurances can be given that performance penalties or contract cancellations will not be imposed should the Company fail to meet delivery schedules or other measures of contract performance — in particular with respect to new development programmes such as the A350-900 and -1000 XWB, A400M, H175 or H160 and to modernisation programmes such as the A320neo and the A330neo. See “— Programme-Specific Risks” below.

In addition to the risk of contract cancellations, the Company may also incur significant costs or loss of revenues in connection with remedial action required to correct any performance issues detected in its products or services. See “— Management’s Discussion and Analysis of Financial Condition and Results of Operations — 2.1.1.3 Significant programme developments, restructuring and related financial consequences in 2016, 2017 and 2018”. Moreover, to the extent that a performance issue is considered to have a possible impact on safety, regulators could suspend the authorisation for the affected product or service.

Any significant problems with the development, manufacturing, operation or performance of the Company’s products and services could have a significant adverse effect on the Company’s financial condition and results of operations as well as on the reputation of the Company and its products and services.

Dependence on Public Spending and on Certain Markets

In any single market, public spending (including defence and security spending) depends on a complex mix of geopolitical considerations and budgetary constraints, and may therefore be subject to significant fluctuations from year to year and country to country. Any termination or reduction of future funding or cancellations or delays impacting existing contracts may have a negative effect on the Company’s financial condition and results of operations. In instances where several countries undertake to enter together into defence or other procurement contracts, economic, political or budgetary constraints in any one of these countries may have a negative effect on the ability of the Company to enter into or perform such contracts.

The Company has a geographically diverse backlog. Adverse economic and political conditions as well as downturns in broad economic trends in certain countries or regions may have a negative effect on the Company’s financial condition and results of operations generated in those regions.

Availability of Government and Other Sources of Financing

From 1992 to 2004, the EU and the US operated under an agreement that sets the terms and conditions of financial support that governments may provide to civil aircraft manufacturers. In late 2004, however, the US unilaterally withdrew from this agreement, which eventually led to the US and the EU making formal claims against each other before the World Trade Organization (“WTO”). While both sides have expressed a preference for a negotiated settlement that provides for a level playing field when funding future aircraft developments, they have thus far failed to reach agreement on key issues. Separately, Brazil has initiated WTO proceedings citing Canadian support to the C Series aircraft. Here too, a negotiated outcome would be preferable. Domestic proceedings in the United States based on alleged subsidies to the C Series were dismissed. The terms and conditions of any new agreement, or the final outcome of the formal WTO or other trade law proceedings, may limit access by the Company to risk-sharing-funds for large projects, may establish an unfavourable balance of access to government funds by the Company as compared to its US competitors or may in an extreme scenario cause the involved governments to analyse possibilities for a change in the commercial terms of funds already advanced to the Company.

In prior years, the Company and its principal competitors have each received different types of government financing of product research and development. However, no assurances can be given that government financing will continue to be made available in the future, in part as a result of the proceedings
The markets in which the Company operates are highly competitive. In some areas, competitors may have more extensive or more specialised engineering, manufacturing and marketing capabilities or better access to funding than the Company. In addition, some of the Company’s largest customers and/or suppliers may develop the capability to manufacture products or provide services similar to those of the Company. This would result in these customers/suppliers marketing their own products or services and competing directly with the Company for sales of these products or services, all of which could significantly reduce the Company’s revenues. Further, new players are operating or seeking to operate in the Company’s existing markets which may impact the structure and profitability of these markets. In addition, enterprises with different business models could substitute some of the Company’s products and services. There can be no assurance that the Company will be able to compete successfully against its current or future competitors or that the competitive pressures it faces in all business areas will not result in reduced revenues, market share or profit.

In addition, the contracts for many aerospace and defence products are awarded, implicitly or explicitly, on the basis of home country preference. Although the Company is a multinational company which helps to broaden its domestic market, it may remain at a competitive disadvantage in certain countries, especially outside of Europe, relative to local contractors for certain products. The strategic importance and political sensitivity attached to the aerospace and defence industries means that political considerations will play a role in the choice of many products for the foreseeable future.

The business environment in many of the Company’s principal operating business segments is characterised by extensive research and development costs requiring significant up-front investments with a high level of complexity. The business plans underlying such investments often contemplate a long payback period before these investments are recouped, and assume a certain level of return over the course of this period in order to justify the initial investment. There can be no assurances that the commercial, technical and market assumptions underlying such business plans will be met, and consequently, the payback period or returns contemplated therein achieved.

Successful development of new programmes also depends on the Company’s ability to attract and retain aerospace engineers and other professionals with the technical skills and experience required to meet its specific needs. Demand for such engineers may often exceed supply depending on the market, resulting in intense competition for qualified professionals. There can be no assurances that the Company will attract and retain the personnel it requires to conduct its operations successfully. Failure to attract and retain such personnel or an increase in the Company’s employee turnover rate could negatively affect the Company’s financial condition and results of operations.

No assurance can be given that the Company will achieve the anticipated level of returns from these programmes and other development projects, which may negatively affect the Company’s financial condition and results of operations and competitiveness.

In the context of the post-Brexit relationship between the UK and the EU, there is a risk that the Company might lose access to pooled expertise and knowledge and could face disruptions within its interdependent and extensively integrated research and innovation networks across the UK and the EU countries. The Company may also face lack of certainty with respect to intellectual property rights for existing or new programmes and established or potential partnerships with private or public organisations, academic institutions and research councils, charities and government departments, where the relevant intellectual property frameworks or user-rights/ownership governing those relationships is dependent on the UK’s status as a member state of the EU.
Digital Transformation, Continuous Improvement and Competitiveness Programmes

In order to improve current operational performance while preparing for the future, the Company launched in 2017 the integration of its headquarters and corporate functions with the largest Division, Airbus Commercial Aircraft (now referred to as “Airbus”), and has initiated a wide-reaching digital transformation programme, Quantum. In parallel, continuous improvement and competitiveness programmes running in all businesses are pursued.

Digital Transformation

The Quantum transformation programme was launched to accelerate transformation of end to end operations and to define our future set-up (operations, new services, new business model) driven by customer requirements. In the short to mid-term Quantum will focus on accelerating and industrialising the most promising digitally-enabled performance improvement initiatives permitting a step change. In the longer term, Quantum will redesign end to end digital operations and enable new profitable business model and services for our customers. Quantum is supported by the Digital Transformation Office (DTO) and Chief Technology Office (CTO) organisations.

Traditional Cost-Saving and Competitiveness Programmes

To improve competitiveness in soft markets, offset costs and achieve profitability targets, among other things, the Company and its Divisions have launched several restructuring, cost saving and competitiveness programmes over the past several years. These include Boost Competitiveness in Commercial Aircraft, Adapt in Helicopters and Compete in Defence and Space.

In addition to the risk of not achieving the anticipated level of cost savings, efficiency gains and other benefits from these programmes, the Company may also incur higher than expected implementation costs. In many instances, there may be internal resistance to the various organisational restructuring and cost reduction measures contemplated. Restructuring, closures, site divestitures and job reductions may also harm the Company’s labour relations and public relations, and have led and could lead to work stoppages and/or demonstrations. In the event that these work stoppages and/or demonstrations become prolonged, or the costs of implementing the programmes above are otherwise higher than anticipated, the Company’s financial condition and results of operations may be negatively affected.

Acquisitions, Divestments, Joint Ventures and Strategic Alliances

As part of its business strategy, the Company may acquire or divest businesses and/or form joint ventures or strategic alliances. Executing acquisitions and divestments can be difficult and costly due to the complexities inherent in integrating or carving out people, operations, technologies and products. There can be no assurance that any of the businesses that the Company intends to acquire or divest can be integrated or carved out successfully, as timely as originally planned or that they will perform well and deliver the expected synergies or cost savings once integrated or separated. In addition, despite the efforts and expenditures of the parties, regulatory, administrative or other contractual conditions can prevent transactions from being finalised. While the Company believes that it has committed sufficient resources and established appropriate and adequate procedures and processes necessary to mitigate these risks, there is no assurance that these transactions will be successfully completed or produce the expected benefits.

Public-Private Partnerships and Private Finance Initiatives

Defence customers may request proposals and grant contracts under schemes known as public-private partnerships (“PPPs”) or private finance initiatives (“PFIs”). PPPs and PFIs differ substantially from traditional defence equipment sales, as they often incorporate elements such as:
- the provision of extensive operational services over the life of the equipment;
- continued ownership and financing of the equipment by a party other than the customer, such as the equipment provider;
- mandatory compliance with specific customer requirements pertaining to public accounting or government procurement regulations; and
- provisions allowing for the service provider to seek additional customers for unused capacity.

The Company is party to PPP and PFI contracts, for example Skynet 5 and related telecommunications services, and in the AirTanker (FSTA) project both with the UK MoD. One of the complexities presented by PFIs lies in the allocation of risks and the timing thereof among different parties over the life-time of the project.

There can be no assurances of the extent to which the Company will efficiently and effectively (i) compete for future PFI or PPP programmes, (ii) administer the services contemplated under the contracts, (iii) finance the acquisition of the equipment and the ongoing provision of services related thereto, or (iv) access the markets for the commercialisation of excess capacity. The Company may also encounter unexpected political, budgetary, regulatory or competitive risks over the long duration of PPP and PFI programmes.
Programme-Specific Risks

In addition to the risk factors mentioned above, the Company also faces the following programme-specific risks (while this list does not purport to be exhaustive, it highlights the current risks believed to be material by management and that could have a significant impact on the Company’s financial condition and results of operations):

**A320neo programme.** In connection with the A320neo programme, the Company faces the following main challenges: A320neo (new engine option) ramp up including the A321neo ACF (Airbus Cabin Flex); management of the internal and external supply chain pressure as a result of the industrial ramp-up; ensuring maturity and high quality service support for a growing number of operators of A320neo. The main focus will be with the further ramp-up for Airbus and both engine suppliers. For both engine suppliers, challenges are to (i) meet the delivery commitments in line with agreed schedule and ensure sufficient engine availability; (ii) fix in-service maturity issues in line with Airbus and customer expectations and mitigate the associated consequences; (iii) manage engine upgrades and performance. The E2E industrial and delivery process at Airbus is under review and will result in significant process and organisation changes.

**A400M programme.** In 2018, Airbus continued with development activities toward achieving the technical capabilities, including the achievement of an important development milestone according to schedule. After the signature of a Declaration of Intent ("DOI") in February 2018, the Company has been working together with OCCAR and concluded the negotiations on the contract amendment. The customer Nations are now set to endorse the agreement to allow pursuing the domestic approval processes before signing the contract amendment.

Risks remain on development of technical capabilities and the associated costs, on securing sufficient export orders in time, on aircraft operational reliability in particular with regards to engines and on cost reductions as per the revised baseline.

For further information, please refer to the “— Notes to the IFRS Consolidated Financial Statements — Note 10: Revenue and Gross Margin”.

**A350 XWB programme.** In connection with the A350 XWB programme, the Company faces the following main challenges: ensuring satisfaction of operators and high quality support to their operations; maintaining supply chain performance and production ramp-up; controlling and reducing the level of outstanding work in final assembly line; reducing recurring costs during the ongoing ramp-up; maintaining customisation and ramp-up of Heads of Version; maintaining the development schedule in line with learning curve assumptions beyond the initial ramp up phase of A350-1000 XWB; maintaining attention on engine development; and customer support for new type in service.

**A380 programme.** In connection with the A380 programme, the Company faces the following main challenges: ramp down the yearly production rate in line with demand and further reduce fixed costs and adjust resources to the new delivery level; and manage maturity in service.

**A330 programme.** In connection with the A330 programme, the main challenge the Company faces is to manage the transition to A330neo. The A330neo development progresses after successful EIS (Entry Into Service). For the engine supplier, the main challenges relate to meeting the delivery commitments and ensuring engine maturity.

**A220 programme.** In connection with the A220 programme, the main challenges the Company faces are to build commercial momentum, ramp up production and reduce costs.

**H225 programme and AS332 L2 fleet.** In connection with the H225 programme and the AS332 L2 fleet, the Company faces the following main challenges: since the crash in April 2016 of a H225 in Norway, the Company is dealing with protective measures validated by EASA who lifted the flight suspension on 7 October 2016 and by UK and Norwegian aviation authorities on 7 July 2017 to put the fleet back into flight operations. Publication of the final AIBN report in July 2018 confirmed the work on incremental improvements on the H225 as part of its ongoing, continuous improvement.

**H175 programme.** In connection with the H175 programme produced in cooperation with Avic, the Company faces the following main challenges: after the delivery of the first H175 in VIP configuration in 2016, the delivery of the 6 first H175 in Public Services intermediate operational configuration in 2018, the Company is working on the maturity plan of the aircraft with the associated industrial ramp-up and on the customer support.

**NH90 and Tiger programmes.** In connection with the NH90 and Tiger programmes, the Company is delivering according to contracts whilst negotiations for the end of some contracts and some new contract amendments are still ongoing. In connection with multiple fleets entering into service it faces the challenge of assuring support readiness.

**H160 programme.** In connection with the H160 programme, the main challenge the Company faces is to manage the certification and the production ramp-up. H160 development and supply chain performance and production ramp-up progress after 1,050 flight hours performed by the end of 2018 by prototypes and pre-serial 2 (PS2) move to the flight line.

**Border security.** In connection with border security projects, the Company faces the following main challenges: meeting the schedule and cost objectives taking into account the complexity of the local infrastructures to be delivered and the integration of commercial-off-the-shelf products (radars, cameras and other sensors) interfaced into complex system networks; assuring efficient project and staffing; managing the rollout including subcontractors and customers. Negotiations on change requests and schedule re-alignments remain ongoing. Export licenses from Germany to Saudi Arabia are currently suspended.
3. Legal Risks

Dependence on Joint Ventures and Minority Holdings

The Company generates a substantial proportion of its revenues through various consortia, joint ventures and equity holdings. These arrangements include primarily:
- the Eurofighter and AirTanker consortia; and
- four principal joint ventures: ArianeGroup, ATR, CSALP and MBDA.

The formation of partnerships and alliances with other market players is an integral strategy of the Company, and the proportion of sales generated from consortia, joint ventures and equity holdings may rise in future years. This strategy may from time to time lead to changes in the organisational structure, or realignment in the control, of the Company’s existing joint ventures.

The Company exercises varying and evolving degrees of control in the consortia, joint ventures and equity holdings in which it participates. While the Company seeks to participate only in ventures in which its interests are aligned with those of its partners, the risk of disagreement or deadlock is inherent in a jointly controlled entity, particularly in those entities that require the unanimous consent of all members with regard to major decisions and specify limited exit rights. The other parties in these entities may also be competitors of the Company, and thus may have interests that differ from those of the Company.

In addition, in those holdings in which the Company is a minority partner or shareholder, the Company’s access to the entity’s books and records, and as a consequence, the Company’s knowledge of the entity’s operations and results, is generally limited as compared to entities in which the Company is a majority holder or is involved in the day-to-day management.

Product Liability and Warranty Claims

The Company designs, develops and produces a number of high profile products of large individual value, particularly civil and military aircraft and space equipment. The Company is subject to the risk of product liability and warranty claims in the event that any of its products fails to perform as designed. While the Company believes that its insurance programmes are adequate to protect it from such liabilities, no assurances can be given that claims will not arise in the future or that such insurance coverage will be adequate.

Intellectual Property

The Company relies upon patents, copyright, trademark, confidentiality and trade secret laws, and agreements with its employees, customers, suppliers and other parties, to establish and maintain its intellectual property (IP) rights in its products and services and in its operations. Despite these efforts to protect its IP rights, any of the Company’s direct or indirect IP rights could be challenged, invalidated or circumvented. Further, the laws of certain countries do not protect the Company’s proprietary rights to the same extent as the laws in Europe and the US. Therefore, in certain jurisdictions the Company may be unable to protect its proprietary technology adequately against unauthorised third-party copying or use, which could adversely affect its competitive position.

In addition, although the Company believes that it lawfully complies with the monopolies inherent in the IP rights granted to others, it has been accused of infringement on occasion and could have additional claims asserted against it in the future. These claims could harm its reputation, result in financial penalties or prevent it from offering certain products or services which may be subject to such third-party IP rights. Any claims or litigation in this area, whether the Company ultimately wins or loses, could be time-consuming and costly, harm the Company’s reputation or require it to enter into licensing arrangements. The Company might not be able to enter into these licensing arrangements on acceptable terms. If a claim of infringement were successful against it, an injunction might be ordered against the Company, causing further losses.
Export Controls Laws and Regulations

The export market is a significant market for the Company. In addition, many of the products the Company designs and manufactures for military use are considered to be of national strategic interest. Consequently, the export of such products outside of the jurisdictions in which they are produced may be restricted or subject to licensing and export control requirements, notably by the UK, France, Germany and Spain, where the Company carries out its principal activities relating to military products and services as well as by other countries where suppliers are based, notably, the US. There can be no assurance (i) that the export controls to which the Company is subject will not become more restrictive, (ii) that new generations of the Company’s products will not also be subject to similar or more stringent controls or (iii) that geopolitical factors or changing international circumstances will not make it impossible to obtain export licenses for one or more clients or constrain the Company’s ability to perform under previously signed contracts. Reduced access to military export markets may have a significant adverse effect on the Company’s business financial condition and results of operations.

Operating worldwide, the Company must comply with several, sometimes inconsistent, sets of sanctions laws and regulations implemented by national / regional authorities. Depending on geopolitical considerations including national security interests and foreign policy, new sanctions regimes may be set up or the scope of existing ones may be widened, at any time, immediately impacting the Company’s activities.

Although the Company seeks to comply with all such laws and regulations, even unintentional violations or a failure to comply could result in suspension of the Company’s export privileges, or preclude the Company from bidding on certain government contracts (even in the absence of a formal suspension or debarment).

Furthermore, the Company’s ability to market new products and enter new markets may be dependent on obtaining government certifications and approvals in a timely manner.

Anti-Corruption Laws and Regulations

The Company is required to comply with applicable anti-bribery laws and regulations in jurisdictions around the world where it does business. To that end, an anti-corruption programme has been put in place that seeks to ensure adequate identification, assessment, monitoring and mitigation of corruption risks. Despite these efforts, ethical misconduct or non-compliance with applicable laws and regulations by the Company, its employees or any third party acting on its behalf could expose it to liability or have a negative impact on its business.

In 2016, for example, the Company announced that it had discovered misstatements and omissions in certain applications for export credit financing for Airbus customers, and had engaged legal, investigative and forensic accounting experts to conduct a review. Separately, the UK Serious Fraud Office announced that it had opened a criminal investigation into allegations of fraud, bribery and corruption in the civil aviation business of Airbus, relating to irregularities concerning third party consultants. Airbus was subsequently informed that the French authorities, the Parquet National Financier (“PNF”), had also opened a preliminary investigation into the same subject and that the two authorities will act in coordination going forward. The Company has engaged with the government of the United States relating to conduct forming part of the SFO/ PNF investigation that could fall within US jurisdiction. The Company has also engaged with the government of the United States concerning potential issues of ITAR Part 130 and related matters. See “— Information on the Company’s Activities — 1.1.7 Legal and Arbitration Proceedings”.

The Company cannot predict at this time the impact on it as a result of these matters, and accordingly cannot give any assurance that it will not be adversely affected. The Company may be subject to administrative, civil or criminal liabilities including significant fines and penalties, as well as suspension or debarment from government or non-government contracts for some period of time. The Company may also be required to modify its business practices and compliance programme and/ or have a compliance monitor imposed on it. Any one or more of the foregoing could have a significant adverse effect on the Company’s reputation and its business, financial condition and results of operations.
Legal and Regulatory Proceedings

The Company is currently engaged in a number of active legal and regulatory proceedings. See “— Information on the Company’s Activities — 1.1.7 Legal and Arbitration Proceedings”. The Company expects to continue to incur time and expenses associated with its defence, regardless of the outcome, and this may divert the efforts and attention of management from normal business operations. Although the Company is unable to predict the outcome of these proceedings, it is possible that they will result in the imposition of damages, fines or other remedies, which could have a material effect on the Company’s business, financial condition and results of operations. An unfavourable ruling could also negatively impact the Company’s stock price and reputation.

In addition, the Company is from time to time subject to government inquiries and investigations of its business and competitive environment due, among other things, to the heavily regulated nature of its industry. In addition to the risk of an unfavourable ruling against the Company, any such inquiry or investigation could negatively affect the Company’s reputation and its ability to attract and retain customers and investors, which could have a negative effect on its business, financial condition and results of operations. See “— Non-Financial Information — 1.1.8.4(a) Responsible Business — Ethical Business Practices”.

4. Environmental, Health and Safety Risks

Given the scope of its activities and the industries in which it operates, the Company is subject to stringent environmental, health and safety laws and regulations in numerous jurisdictions around the world. The Company therefore incurs, and expects to continue to incur, significant capital expenditure and other operating costs to comply with increasingly complex laws and regulations covering the protection of the natural environment as well as occupational health and safety. This expenditure includes the identification and the prevention, elimination or control of physical and psychological risks to people arising from work, including chemical, mechanical and physical agents. Environmental protection includes costs to prevent, control, eliminate or reduce emissions to the environment, waste management, the content of the Company’s products, and reporting and warning obligations. Moreover, new laws and regulations, the imposition of tougher licence requirements, increasingly strict enforcement or new interpretations of existing laws and regulations may cause the Company to incur increased capital expenditure and operating costs in the future in relation to the above, which could have a negative effect on its financial condition and results of operations.

If the Company fails to comply with health, safety and environmental laws and regulations, even if caused by factors beyond its control, that failure may result in the levying of civil or criminal penalties and fines against it. Regulatory authorities may require the Company to conduct investigations and undertake remedial activities, curtail operations or close installations or facilities temporarily to prevent imminent risks. In the event of an industrial accident or other serious incident, employees, customers and other third parties may file claims for ill-health, personal injury, or damage to property or the environment (including natural resources). Further, liability under some health, safety and environmental laws can be imposed retrospectively, on a joint and several basis, and, in relation to contaminated sites, without any finding of non-compliance or fault. These potential liabilities may not always be covered by insurance, or may be only partially covered. The obligation to compensate for such damages could have a negative effect on the Company’s financial condition and results of operations.

In addition, the various products manufactured and sold by the Company must comply with relevant health, safety and environmental laws, for example those designed to protect customers and downstream workers, and those covering substances and preparations, in the jurisdictions in which they operate. Although the Company seeks to ensure that its products meet the highest quality standards, increasingly stringent and complex laws and regulations, new scientific discoveries, delivery of defective products or the obligation to notify or provide regulatory authorities or others with required information (such as under the EU Regulation known as “REACH”, which addresses the production and use of chemical substances) may force the Company to adapt, redesign, redevelop, recertify and/or eliminate its products from the market. Seizures of defective products may be pronounced, and the Company may incur administrative, civil or criminal liability. Any problems in this respect may also have a significant adverse effect on the reputation of the Company and its products and services.

Despite compliance with all applicable laws and regulations, the Company’s reputation may also be affected by the public perception of environmental impacts of the Company’s products in operation (such as the emission of greenhouse gases or noise) and of the local environmental impacts of Airbus and its supply chain industrial operations on local air and water quality.

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Information on the Company’s Activities

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1.1 Presentation of the Company

1.1.1 Overview

Due to the nature of the markets in which the Company operates and the confidential nature of its businesses, any statements with respect to the Company’s competitive position set out in paragraphs 1.1.1 through 1.1.5 below have been based on the Company’s internal information sources, unless another source has been specified below.

With consolidated revenues of €63.7 billion in 2018, the Company is a global leader in aeronautics, space and related services. Airbus offers the most comprehensive range of passenger airliners. The Company is also a European leader providing tanker, combat, transport and mission aircraft, as well as one of the world’s leading space companies. In helicopters, the Company provides the most efficient civil and military rotorcraft solutions worldwide. In 2018, it generated 34.5% of its total revenues in the civil sector (compared to 85% in 2017) and 15.5% in the defence sector (compared to 15% in 2017). As of 31 December 2018, the Company’s active headcount was 133,671 employees.

Strategy

2018 was the year Airbus operated as One Company after the completion of the Airbus Group and Airbus integration. This evolution simplified our company’s governance, eliminated redundancies and supported further efficiencies, while at the same time driving further integration of the entire group. The Company overall will derive considerable benefit from the integration through more focused business support and reduced costs.

Airbus Defence and Space continued to reshape its portfolio and restructure on military aircraft, missiles, launchers and satellites. The Company pursued the divestment process of the businesses that do not fit with the new strategic goals and have better futures in more tailored ownership structures. The Company completed the divestment of its North American Airbus DS Communications Inc. business.

Airbus Helicopters retained its leadership in civil and parapublic segment and managed to increase its market share in military segment, while operating in a challenging market environment.

The eight long term paths of the Company’s strategy remain as follows:

1. Remain a leader in commercial aerospace, strengthen market position and profitability

The commercial aircraft business aims to be largely self-sufficient going forward. Focus upon on-time, on-cost and on-quality deliveries is paramount given the huge backlog execution challenge (over 7,500 aircraft). Airbus aims to further strengthen its position through focusing on digitalisation, innovation, services, improving our industrial system, and a more global approach.

On 1 July 2018, Airbus announced the closing of the A220 (formerly known as C Series) transaction between Airbus SAS, Bombardier Inc. and Investissement Québec. Airbus now owns a 50.01% majority stake in the aircraft programme. A220 aircraft expand the Airbus single-aisle family to cover the 100-150 seat segment – and respond to a worldwide market demand for single-aisle jetliners in that segment.

Despite challenges in the traditional helicopter market, Airbus Helicopters has shown resilient performance, keeping its market leadership in the civil & parapublic segments.

2. Preserve our leading position in European Defence, Space and Government markets by focusing on providing military platforms, space assets, and associated services, as well as through our participation in missile and launcher joint ventures

The disproportionate scale of our commercial aircraft business compared to our Defence, Space and Government activities has diluted the latter’s ability to serve as an effective tool to manage and hedge against commercial cycles. Nevertheless, the Company remains fully committed to serving its institutional and government customers by actively shaping and strengthening its Defence, Space and Government businesses. The Company is doing so by: (i) leveraging customer funding to develop and deliver high performance military aircraft, space, and related service offerings as well as through its participation in missile and launcher joint ventures; and (ii) focusing on productivity improvements – both through internal means and in the context of European industrial optimization – that will better position the Company in Space and export markets.

In 2018, the Company worked with our government and institutional customers to anticipate and prepare competitive next generation solutions – including in the domains of Future Combat Air Systems, European MALE RPAS, Maritime Airborne Warfare Systems, and space situational awareness – while concurrently developing new digital and other services, e.g. SmartForce offerings that will improve availability and total lifecycle costs of our military aircraft fleets.

On military markets, Airbus Helicopters also showed strong performance, as market share increased.

3. Pursue incremental innovation potential within product programmes while pioneering and fostering disruptions in our industry, and developing necessary skills and competencies required to compete in the future

Airbus innovates every day to increase its value propositions by enhancing product performance, creating new customer benefits and reducing costs. Our cutting-edge technologies
An important aspiration for the Company with a global workforce is to build on its diversity and multicultural teams to support our Industrial cooperation, help us anticipate and respond to geopolitical changes. Our desire to move from an ethnocentric to a geocentric approach is reflected in our mobility strategy which aims to enrich our founding countries with international talents. Our “Regional Focus Reviews” is another platform used to identify and develop our top talents in all regions and encourage intra and inter mobility between our regions and founding countries.

Other key programmes introduced are as follows:
- iJet: launched in 2017 to create customised development programmes to accelerate the career of our top junior international talents (internal);
- IGP: a two-year international development programme aimed to attract young and talented individuals (external).

Our Airbus Global University Partner Programme connects a global network of universities and aims to develop engineering and technology specialists of the future. The programme currently covers 26 universities in 13 countries over 4 continents.

We are also looking at developing new innovative ideas for the future like designing an end-to-end process between Airbus Foundation and Airbus HR programmes to channel students into Airbus jobs and to conduct a feasibility study on launching an International Bursary Programme to inspire less privileged children from countries such as Africa and India to study aerospace engineering.

Last but not least, with a view to obtaining external perspectives, the Company is building an external community of international leadership profiles to facilitate open exchanges with the Company.

6. Focus services on and around the Company’s platforms

The strategy going forward is to focus on services where the Company can differentiate and add value for its customers according to the motto “no one knows our products better than we”, aiming at developing long-term customer intimacy and bringing competitive advantage to its customers. As services are executed locally, the portfolio will be adapted to the increasingly global customer base. Cooperation with military customers is set to increase substantially through maintenance and support services thanks to the new platforms in the still growing fleet, which will include about 600 Eurofighters, over 170 A400M aircraft, around 550 NH90s and over 200 Tiger helicopters.

Since 1974, Airbus has delivered close to 12,000 commercial aircraft with over 7,500 still to be delivered. As the installed base is expanding rapidly, new innovative services (power by the hour, maintenance, and training) are being offered successfully.

Airbus Helicopters is a typical example of a well-balanced business mix between platform manufacturing and services. Through the HCare service offer, Airbus Helicopters provides material management, helicopter maintenance, technical support, training and flight ops, and connected services.

Airbus Defence and Space is developing GEO-Information & GEO-Intelligence services to better cater not just to governments but also commercial needs.

4. Exploit digitalisation to enhance our current business as well as pursue disruptive business models

Digitalisation will support the Company’s transformation by focusing on five main axes: (i) enabling high employee engagement, (ii) digital operational excellence, (iii) mastering our product data value chain and turning product data into insight, (iv) capturing the end-user experience and (v) driving our business agility.

Airbus launched Skywise, a data platform in collaboration with pioneers in data integration and advanced analytics. Skywise has established an early lead in the race to connect the aviation industry since its launch in 2017 at the Paris Air Show. Skywise aims to become the single platform of reference used by all major aviation players to improve their operational performance and business results and to support their own digital transformation.

In 2018, Airbus Defence and Space together with Airbus Helicopters launched the SmartForce suite of services to enable military operators to exploit the data gathered by their aircraft to enhance operational safety, boost mission availability and reduce maintenance support costs.

5. Adapt to a more global world as well as attract and retain global talents

The Company has a worldwide presence in 38 countries. The number of employees employed outside core countries is circa 15,300 and this will continue to grow. In Canada alone our numbers have increased significantly from 152 in 2017 to about 2,300 employees in 2018 following our C Series Joint Venture with Bombardier.

and scientific excellence contribute to global progress and to delivering solutions for society’s challenges, such as environmental protection, mobility and safety.

After many new product developments in recent years, the majority of the Company’s revenues are generated today in segments where we have competitive, mature products that are far from the end of their lifecycle. Innovation will therefore target maintaining, expanding and continually leveraging the competitiveness of these products.

In addition, the Company raised its ambitions to pioneer and disrupt the aerospace industry in areas that will shape the market and our future and made a substantial effort in breakthrough innovation.

A prime example of how the Company leads disruption in the aerospace industry is Urban Air Mobility, “UAM”: we expect a large-scale market to emerge by adding the third dimension to transport options in megacities. This will require new end-to-end solutions combining electrical Vertical Take Off and Landing “eVTOL” vehicles, self-piloting/automation, and a digital, services driven economy with new mobility-as-a-service business models and seamless integration into other transport systems. Starting around 2014, the Company has made significant progress on technical solutions (e.g., eVTOL vehicle demonstrators, air traffic management, infrastructure) and business aspects (disruptive strategy, on-demand helicopter transport, policy making support) and has become a precursor in the field.
7. Strengthen the value chain position

The Company’s core capability has been to master programme management and architect / integrator capabilities in order to design, develop, manufacture, market and service large-scale aeronautics / space platforms and integrated systems. As the Company performs a strong platform prime integrator role, managing the supplier base to enable the delivery of on time and on quality product to the final customer. We aim to strengthen and optimise selected strategic value chain areas to protect our intellectual property, manage risks, improve customer satisfaction, increase profit, offer services, build competencies and differentiate our offerings. The Company’s suppliers provide a large proportion of the value in our products, necessitating a robust supply-chain governance framework. This is supported by processes and tools that foster partnership, risk mitigation and supplier performance development.

In order to secure our value chain position and maintain a competitive advantage, the Company is continually assessing its strategy with regard to topics such as, supplier selection, dual source, make or buy, core non-core and M&A. This allows the Company to offer and deliver the best product to the customer whilst consistently enhancing key bricks in the value chain.

8. Focus on profitability, value creation and market position; no need to chase growth at any cost; actively manage portfolio

Thanks to strong organic growth potential, mainly in the commercial airplane business, Airbus is going through a series of production ramp-ups with associated financial needs. On top of that, targeted investments are expected to help to position the Company for the future. The financial strength of the Company is vital for mastering these challenges, and to ensure that we have enough room for manoeuvre for further strategic moves. As a prerequisite, the Company must remain attractive for investors, notably compared to its peers.

Organisation of the Company’s Businesses

In 2018, the Company organised its businesses into the following three operating segments: (i) Airbus (formerly Commercial Aircraft), (ii) Helicopters and (iii) Defence and Space. However, as a continuation of a number of integration and normalisation steps that took place in 2012, 2013 and 2015, the Company merged its Group structure with its largest division Commercial Aircraft. The merger began mid-2017 and provided the opportunity to introduce a single Airbus brand for the Company and all its entities, effective since January 2017. In 2017, Airbus Group SE’s name was changed to Airbus SE, following approval at the Annual General Meeting. Therefore, Airbus SE together with its subsidiaries is referred to as “the Company” and no longer the “Group”. Consequently, the segment formerly known as “Airbus Commercial Aircraft” is referred to as “Airbus”. In this new set-up, the Company retains Airbus Defence and Space and Airbus Helicopters as Divisions. The chart set out in “— General Description of the Company and its Share Capital — 3.3.6 Simplified Group Structure Chart” illustrates the allocation of activities.

Airbus (Commercial Aircraft)

Airbus is one of the world’s leading aircraft manufacturers of passenger airliners. Across all its aircraft families Airbus’ unique approach ensures that aircraft share the highest commonality in airframes, on-board systems, cockpits and handling characteristics. This significantly reduces operating costs for airlines.

Since it was founded in 1970 and up to the end of 2018, Airbus has received net orders for 19,340 commercial aircraft from 414 customers around the world. In 2018, Airbus delivered 800 aircraft (compared to 718 deliveries in 2017) and received 831 gross orders (compared to 1,229 gross orders in 2017), or 41% of the gross worldwide market share (in value terms) of aircraft with more than 100 seats (compared to 50% in 2017). After accounting for cancellations, net order intake for 2018 was 747 aircraft (compared to 1,109 aircraft in 2017). As of 31 December 2018, Airbus’s backlog of commercial orders was 7,577 aircraft (compared to 7,265 aircraft in 2017).

In 2018, Airbus recorded total revenues of €47.97 billion — representing 75% of the Company’s revenues. See “— 1.1.2 Airbus”.

Helicopters

Airbus Helicopters is a global leader in the civil and military rotorcraft market, offering one of the most complete and modern ranges of helicopters and related services. This product range currently includes light single-engine, light twin-engine, medium and medium-heavy rotorcraft, which are adaptable to all kinds of mission types based on customer needs.

Airbus Helicopters delivered 356 helicopters in 2018 (409 in 2017) and received 381 net orders in 2018 (compared to 335 net orders in 2017). Order intake amounted to €5.95 billion (2017: €6.23 billion). Civil contracts accounted for 43% of this order volume, with military sales representing the remaining 57%. At the end of 2018, Airbus Helicopters order book stood at 717 helicopters (2017: 692 helicopters).

In 2018, Airbus Helicopters recorded total revenues of €5.93 billion, representing 9% of the Company’s revenues. See “— 1.1.3 Helicopters”.

Defence and Space

Airbus Defence and Space is Europe’s number one defence and space enterprise, one of the world’s leading space companies and among the top 10 global defence enterprises. Defence and Space puts a strong focus on core businesses: space, military aircraft, missiles and related systems and services.

Airbus Defence and Space is organised in four Programme Lines: Military Aircraft; Space Systems; Communications, Intelligence & Security (CIS); and Unmanned Aerial Systems (UAS). It develops and engineers cutting-edge products in the field of defence and space, enabling governments, institutions and commercial customers alike to protect resources and people while staying connected to the world. Airbus Defence and Space solutions guarantee sovereignty in foreign affairs and defence matters.

In 2018, Airbus Defence and Space recorded total revenues of €11.1 billion, representing 17% of the Company’s revenues. See “— 1.1.4 Defence and Space”.

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In 2018, Airbus recorded total revenues of €47.97 billion, representing 75% of the Company’s revenues. See “— 1.1.2 Airbus”.

In 2018, Airbus Defence and Space recorded total revenues of €11.1 billion, representing 17% of the Company’s revenues. See “— 1.1.4 Defence and Space”. 
Summary Financial and Operating Data

The following tables provide summary financial and operating data for the Company for the past three years.

The 2017 financial information has been restated to reflect the new segment structure. In addition, the 2017 financial information has been restated under IFRS 15 when required by the standard.

1.1 Presentation of the Company

The 2016 financial information has not been restated under IFRS 15. See “— Management’s Discussion and Analysis of Financial Condition and Results of Operations — 2.1 Operating and Financial Review”.

Additionally, the 2017 and 2016 figures for order intake and order backlog have not been restated for IFRS 15. See “— 2.1.3.2: Order Intake and Order Backlog”.

REVENUE BY BUSINESS SEGMENT

<table>
<thead>
<tr>
<th></th>
<th>Year ended 31 December 2018</th>
<th>Year ended 31 December 2017 as restated</th>
<th>Year ended 31 December 2017 as reported</th>
<th>Year ended 31 December 2016 as reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airbus</td>
<td>47,970</td>
<td>43,486</td>
<td>50,958</td>
<td>49,237</td>
</tr>
<tr>
<td>Airbus Helicopters</td>
<td>5,934</td>
<td>6,335</td>
<td>6,450</td>
<td>6,652</td>
</tr>
<tr>
<td>Airbus Defence and Space</td>
<td>11,063</td>
<td>10,596</td>
<td>10,804</td>
<td>11,854</td>
</tr>
<tr>
<td>Subtotal segmental revenue</td>
<td><strong>64,967</strong></td>
<td><strong>60,417</strong></td>
<td><strong>68,212</strong></td>
<td><strong>67,743</strong></td>
</tr>
<tr>
<td>Transversal / Eliminations(1)</td>
<td>(1,260)</td>
<td>(1,395)</td>
<td>(1,445)</td>
<td>(1,162)</td>
</tr>
<tr>
<td>Total</td>
<td><strong>63,707</strong></td>
<td><strong>59,022</strong></td>
<td><strong>66,767</strong></td>
<td><strong>66,581</strong></td>
</tr>
</tbody>
</table>

(1) “Transversal / Eliminations” comprises activities not allocable to the reportable segments, combined together with consolidation effects.

REVENUE BY GEOGRAPHICAL AREAS

<table>
<thead>
<tr>
<th></th>
<th>Year ended 31 December 2018</th>
<th>Year ended 31 December 2017 as restated</th>
<th>Year ended 31 December 2017 as reported</th>
<th>Year ended 31 December 2016 as reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia / Pacific</td>
<td>23.3</td>
<td>21.3 (36.6%)</td>
<td>24.8 (37.2%)</td>
<td>21.3 (32.0%)</td>
</tr>
<tr>
<td>Europe</td>
<td>17.8</td>
<td>15.8 (27.9%)</td>
<td>17.0 (25.4%)</td>
<td>21.4 (32.1%)</td>
</tr>
<tr>
<td>North America</td>
<td>11.1</td>
<td>10.8 (18.3%)</td>
<td>12.6 (18.9%)</td>
<td>8.9 (13.4%)</td>
</tr>
<tr>
<td>Other countries(2)</td>
<td>11.5</td>
<td>11.1 (18.8%)</td>
<td>12.4 (18.5%)</td>
<td>15.0 (22.5%)</td>
</tr>
<tr>
<td>Total</td>
<td><strong>63.7</strong></td>
<td><strong>59.0</strong> (100%)</td>
<td><strong>66.8</strong> (100%)</td>
<td><strong>66.6</strong> (100%)</td>
</tr>
</tbody>
</table>

(1) Percentage of total revenue after eliminations.
(2) Including the Middle East.

ORDER INTAKE BY BUSINESS SEGMENT(1)

<table>
<thead>
<tr>
<th></th>
<th>Year ended 31 December 2018</th>
<th>Year ended 31 December 2017</th>
<th>Year ended 31 December 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(In € billion)</td>
<td>(In percentage)(2)</td>
<td>(In € billion)</td>
</tr>
<tr>
<td>Airbus</td>
<td>41.5</td>
<td>73.7%</td>
<td>143.4</td>
</tr>
<tr>
<td>Airbus Helicopters</td>
<td>6.3</td>
<td>11.3%</td>
<td>6.5</td>
</tr>
<tr>
<td>Airbus Defence and Space</td>
<td>8.4</td>
<td>15.0%</td>
<td>8.9</td>
</tr>
<tr>
<td>Subtotal segmental order intake</td>
<td><strong>56.3</strong></td>
<td><strong>100%</strong></td>
<td><strong>158.8</strong></td>
</tr>
<tr>
<td>Transversal / Eliminations(2)</td>
<td>(0.8)</td>
<td>(1.1)</td>
<td>(1.9)</td>
</tr>
<tr>
<td>Total</td>
<td><strong>55.5</strong></td>
<td><strong>157.7</strong></td>
<td><strong>134.5</strong></td>
</tr>
</tbody>
</table>

(1) Without options.
(2) Before “Transversal / Eliminations”.
**1.1 Presentation of the Company**

### ORDER BACKLOG BY BUSINESS SEGMENT

<table>
<thead>
<tr>
<th></th>
<th>Year ended 31 December 2018</th>
<th>Year ended 31 December 2017</th>
<th>Year ended 31 December 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(In € billion) (In percentage)(2)</td>
<td>(In € billion) (In percentage)(2)</td>
<td>(In € billion) (In percentage)(2)</td>
</tr>
<tr>
<td>Airbus</td>
<td>411.7 89.1%</td>
<td>950.4 95.1%</td>
<td>1,010.2 95.0%</td>
</tr>
<tr>
<td>Airbus Helicopters</td>
<td>14.9 3.2%</td>
<td>11.2 1.1%</td>
<td>11.3 1.1%</td>
</tr>
<tr>
<td>Airbus Defence and Space</td>
<td>35.3 7.7%</td>
<td>37.4 3.8%</td>
<td>41.5 3.9%</td>
</tr>
<tr>
<td><strong>Subtotal segmental order backlog</strong></td>
<td><strong>461.9</strong> <strong>100%</strong></td>
<td><strong>999.0</strong> <strong>100%</strong></td>
<td><strong>1,063.0</strong> <strong>100%</strong></td>
</tr>
<tr>
<td>Transversal / Eliminations</td>
<td>(2.4)</td>
<td>(2.1)</td>
<td>(2.6)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>459.5</strong></td>
<td><strong>996.8</strong></td>
<td><strong>1,060.4</strong></td>
</tr>
</tbody>
</table>

(1) Without options.
(2) Before "Transversal / Eliminations".

**Relationship between Airbus SE and the Company**

In line with the previous organisational structure, Airbus SE itself does not engage in the core aerospace, defence or space business of the Company but coordinates related businesses, sets and controls objectives and approves major decisions for the Company. As the parent company, Airbus SE conducts activities which are essential to the Company’s activities and which are an integral part of the overall management of the Company. In particular, finance activities pursued by Airbus SE are in support of the business activities and strategy of the Company. In connection therewith, Airbus SE provides or procures the provision of services to the subsidiaries of the Company. General management service agreements have been put in place with the subsidiaries and services are invoiced on a cost plus basis.

For management purposes, Airbus SE acts through its Board of Directors, Executive Committee, and Chief Executive Officer in accordance with its corporate rules and procedures as described below under “— Corporate Governance — 4.1 Management and Control”.

Within the framework defined by Airbus SE, Airbus, each Division, Business Unit and subsidiary is vested with full entrepreneurial responsibility.

**1.1.2 Airbus (Commercial Aircraft)**

Airbus is one of the world’s leading aircraft manufacturers of passenger airliners. In order to help shape the future of air transportation and drive steady growth around the world. Airbus seeks incremental innovative technological solutions and the most efficient sourcing and manufacturing possible – so airlines can grow and people can connect. Airbus’ comprehensive product line comprises successful families of jetliners ranging in capacity from 100 to more than 600 seats: the A220 Family (formerly Bombardier Inc.’s C Series); the A320 Family, which is civil aviation’s best-selling product line; the A330 Family, including the advanced A330neo; the new-generation widebody A350 XWB; and the double-deck A380. Across its aircraft families Airbus’ solutions ensure that aircraft share high commonality in airframes, on-board systems, cockpits and handling characteristics. This significantly reduces operating costs for airlines. See “— 1.1.1 Overview” for an introduction to Airbus.

Airbus’ global presence includes, on top of France, Germany, Spain and the United Kingdom, fully-owned subsidiaries in the United States, China, Japan, India and in the Middle East, and spare parts centres in Hamburg, Frankfurt, Washington, Beijing, Dubai and Singapore. Airbus also has engineering and training centres in Toulouse, Miami, Mexico, Wichita, Hamburg, Bangalore, Beijing and Singapore, as well as an engineering centre in Russia. There are also hubs and field service stations around the world. Airbus also relies on industrial co-operation and partnerships with major companies and a wide network of suppliers around the world.

**Strategy**

Airbus’ primary goal is to deliver strong results in a sustained manner, while commanding a further increased share of the worldwide commercial aircraft market over the long-term and expanding its customer services offering. To achieve these goals, Airbus is actively:

**Developing the Most Comprehensive Line of Products in Response to Customer Needs**

Airbus continuously seeks to develop and deliver new products to meet customers’ evolving needs, while also improving its existing product line. Several products entered into service in 2018:

- the A321LR, extending the capabilities of the A320 Single-Aisle Family in order to maintain its position as the most advanced and fuel-efficient single-aisle aircraft family;
- the A330neo (new engine option), the new generation of the A330 Family;
- the A350-900 ULR (Ultra Long Range), variant of the A350 XWB capable of flying up to 9,700 nautical miles;
the A350-1000, Airbus’ latest and largest widebody in the twin-aisle category.

To support the A350 XWB ramp-up and other production increases, a new super transporter is under development, with the first five of Beluga XL aircraft to enter into service in 2019. The first flight of the Beluga XL took place in July 2018.

Airbus remains at the forefront of the industry by expanding its customer services offering – see Customer Services.

Building a Leaner, More Fully Integrated Company

In order to build a leaner, more fully integrated company and thereby bolster its competitiveness, Airbus is adapting its organisation to foster an entrepreneurial spirit and empower more teams, while maintaining harmonised processes across all sites. For series programmes, additional responsibilities and means have been delegated to plants for delivery at increased rates. Airbus also has become a more integrated company, working towards one common culture across its global workforce, as well as aligning processes and planning with the global supplier base.

Market

Market Drivers

The main factors affecting the commercial aircraft market include passenger demand for air travel, cargo activity, economic growth cycles, oil prices, national and international regulation (and deregulation), the rate of replacement and obsolescence of existing fleets and the availability of aircraft financing sources. The performance, competitive posture and strategy of aircraft manufacturers, airlines, cargo operators and leasing companies as well as wars, political unrest, pandemics and extraordinary events may also precipitate changes in demand and lead to short-term market imbalances.

According to internal estimates, demand for 37,400 passenger and freight aircraft is forecast in the next 20 years with Asia-Pacific accounting for 42% of deliveries. In recent years, China and India have emerged as significant new aircraft markets. As a result, Airbus has sought to strengthen its commercial and industrial ties in these countries.

The no-frills / low-cost carriers also constitute a significant sector, and are expected to continue growing around the world, particularly in Asia, where emerging markets and continued deregulation should provide increased opportunities. While single-aisle aircraft continue to be a popular choice for these carriers, demand for Airbus’ range of twin-aisle aircraft may also increase as some of these carriers develop or further develop their long-range operations.

Overall growth. The long-term market for passenger aircraft depends primarily on passenger demand for air travel, which is itself primarily driven by economic or GDP growth, fare levels and demographic growth. Measured in revenue passenger kilometres, air travel increased in every year from 1967 to 2000, except for 1991 due to the Gulf War, resulting in an average annual growth rate of 7.9% for the period. Demand for air transportation also proved resilient in the years following 2001, when successive shocks, including 9/11 and SARS in Asia, dampened demand. Nevertheless, the market quickly recovered.

At the end of 2008 and in 2009, the financial crisis and global economic difficulties witnessed resulted in only the third period of negative traffic growth during the jet age, and a cyclical downturn for airlines in terms of traffic (both passenger and cargo), yields and profitability.

More recently, air travel demand growth has maintained solid momentum, supported by positive ongoing improvement in global economic conditions throughout the year. World real GDP growth is projected to be at +3.2% in 2018, and forecast to remain positive with +3.0% in 2019 and +2.9% in 2020.

Preliminary figures released at the end of 2018, by the International Civil Aviation Organisation (ICAO), confirmed that some 4.3 billion passengers made use of the global air transport network for their business, tourism needs or for simply visiting friends and relatives (VFR) in 2018. The annual passenger total is up 6.1% compared to 2017 and the number of departures rose to approximately 38 million globally. World passenger traffic, expressed in terms of total scheduled revenue passenger-kilometres (RPKs), posted an increase of 6.7% with approximately 8.2 trillion revenue passenger kilometres performed.

Through its analysis Airbus continues to believe in the long term growth potential of our industry. The commercial aviation industry has been resilient to external shocks and traffic has grown X2.3 since 2000. Based on internal estimates, Airbus a growth rate of 4.4% annually during the period 2018-2037. If the actual growth rate equals or exceeds this level, Airbus expects that passenger traffic, as measured in revenue passenger kilometres, will double in the next 15 years.

Cyclicality. Despite an overall growth trend in air travel, aircraft order intake can vary significantly from year to year and within different regions, due to the volatility of airline profitability, cyclicality of the economy, aircraft replacement waves and occasional unforeseen events which can depress demand for air travel. However, new product offerings and growth across the market has resulted in good levels of order activity in recent years. For example, in 2018, Airbus added 747 net orders to its order book, with orders for aircraft from all segments of the market.

Despite some cyclicality in airline demand, Airbus aims to secure stable delivery rates from year to year, supported by a strong backlog of orders and a regionally diverse customer base. At the end of 2018, the backlog stood at 7,577 aircraft. Through careful backlog management, close monitoring of the customer base and a prudent approach to production increases, Airbus has successfully increased annual deliveries for 16 years running, even through the economic crisis of 2008-2009.

Regulation / Deregulation. National and international regulation (and deregulation) of international air services and major domestic air travel markets affect demand for passenger aircraft as well. In 1978, the US deregulated its domestic air transportation system, followed by Europe in 1985. The more recently negotiated “Open Skies Agreement” between the US and Europe, which became effective in 2008, allows any European or US airline to fly any route between any city in the EU and any city in the US. Other regions and countries are also progressively deregulating, particularly in Asia. This trend is expected to continue, facilitating and in some cases driving demand. In addition to providing greater market access (which may have formerly been limited), deregulation may allow for the creation and growth of new airlines or new airline models, as
has been the case with the no-frills / low-cost airline model, which has increased in importance throughout major domestic and intra-regional markets since deregulation (e.g., in the US and Europe).

**Airline network development: “hub” and “point-to-point” networks.** Following deregulation, major airlines have sought to tailor their route networks and fleets to continuing changes in customer demand. Accordingly, where origin and destination demand prove sufficiently strong, airlines often employ direct, or “point-to-point” route services. However, where demand between two destinations proves insufficient, airlines have developed highly efficient “hub and spoke” systems, which provide passengers with access to a far greater number of air travel destinations through one or more flight connections.

The chosen system of route networks in turn affects aircraft demand, as hubs permit fleet standardisation around both smaller aircraft types for the short, high frequency and lower density routes that feed the hubs (between hubs and spokes) and larger aircraft types for the longer and higher density routes between hubs (hub-to-hub), themselves large point-to-point markets. As deregulation has led airlines to diversify their route network strategies, it has at the same time therefore encouraged the development of a wider range of aircraft in order to implement such strategies.

Airbus, like others in the industry, believes that route networks will continue to grow through expansion of capacity on existing routes and through the introduction of new routes, which will largely be typified by having a major hub city at least at one end of the route. These new route markets are expected to be well served by the latest product offering, the A350 XWB. In addition, the A380 has been designed primarily to meet the significant demand between the major hub cities, which are often among the world’s largest urban centres (such as London, Paris, New York and Beijing). Airbus has identified 58 major hub cities in its current market analysis, with this number expected to grow to over 95 by 2036. Airbus believes that it is well positioned to meet current and future market requirements given its complete family of products.

**Alliances.** The development of world airline alliances has reinforced the pattern of airline network development described above. According to data from Ascend, a UK-based aviation consultancy, one-third of the world’s jetliner seats being flown today are operated by just 18 airlines. In the 1990s, the major airlines began to enter into alliances that gave each alliance member access to the other alliance members’ hubs and routings, allowing airlines to concentrate their hub investments while extending their product offering and market access.

**Market Structure and Competition**

**Market segments.** According to a study conducted by Airbus, some 19,800 passenger aircraft with more than 100 seats were in service with airlines worldwide at the beginning of 2018. Currently, Airbus competes in each of the four principal market segments for aircraft with more than 100 seats.

“Small” aircraft, such as the A220 and A320 Families, having 100 to more than 200 seats, and which are used principally for short-range and medium-range routes of up to 3,000 nautical miles.

“Medium” aircraft typically offering up to 300 seats on routes of up to 5,000 nautical miles. This includes long range versions of the A220 and A320 as well as the A330 family.

“Large” aircraft, such as the A330’s and variants of the A350-900 XWB. These families are typically configured with two aisles and seat up to 350 on routes of up to 10,000 nautical miles.

“Very Large aircraft”, such as the A350-1000 and A380, are designed to carry more than 350 passengers and also to operate on routes of up to 10,000 nautical miles.

Freight aircraft, which form a fifth, related segment, are a combination of new build and converted ex-passenger aircraft. Converted aircraft are prevalent in the expanding e-commerce market which typically sees relatively low aircraft utilization. This can provide an economical “second life” for in-service aircraft from the A320 and A330 families. See “— Regional Aircraft, Aerostructures, Seats and Aircraft Conversion — EFW”.

Airbus also competes in the corporate, VIP business jet market with the ACJ. Airbus continues to develop corporate jet versions of its modern airliner family, notably the ACJ319neo and ACJ320neo, as well as offering new variants, such as the ACJ330neo and ACJ350 XWB. The increased range of these aircraft extends Airbus’ leadership in cabin comfort to even longer flights. First flight of the ACJ320neo took place on 16 November 2018 with the first aircraft delivered on 16 January 2019.

Airbus’ ACJ319neo will fly eight passengers, 6,750 nm/12,500 km or 15 hours, while the ACJ350 XWB can transport 25 passengers for 10,800 nm/20,000 km or 22 hours.

An ACJ Service Centre Network is progressively being implemented, building on Airbus’ philosophy of customer care.

More than 200 Airbus aircraft operate worldwide in service with companies, individuals and governments.

**Geographic differences.** The high proportion of single-aisle aircraft in use in both North America and Europe reflects the predominance of domestic short-range and medium-range flights, both from the expansion of the low-cost carrier and particularly in North America due to the development of hubs following deregulation. In comparison with North America and Europe, the Asia-Pacific region uses a greater proportion of twin-aisle aircraft, as populations tend to be more concentrated in fewer large urban centres. The tendency towards use of twin-aisle aircraft is also reinforced by the fact that many of the region’s major airports limit the number of flights, due either to environmental concerns or to infrastructure constraints that limit the ability to increase flight frequency. These constraints necessitate higher average aircraft seating capacity per flight. However, Airbus believes that demand for single-aisle aircraft in Asia will grow over the next 20 years, particularly as domestic markets in China and India and low-cost carriers continue to develop in the region. Aircraft economics will also help to drive aircraft size, with airlines looking to reduce the cost per seat through higher density aircraft cabins and the use of larger aircraft types and variants where possible.

**Competition.** Airbus has been operating in a duopoly since Lockheed’s withdrawal from the market in 1986 and Boeing’s acquisition of McDonnell Douglas in 1997. As a result, the market for passenger aircraft of more than 100 seats has been divided between Airbus and Boeing. According to the manufacturers’ published figures for 2018, Airbus and Boeing, each accounted for 50% of total commercial aircraft deliveries, 46% and 54% of total net orders (in units), and 56% and 44% of the total year-end backlog (in units). With 800 deliveries, 2018 was Airbus’ 16th year in a row of increased production.
Nevertheless, the high technology and high value nature of the business makes aircraft manufacturing an attractive industry in which to participate, and besides Boeing, Airbus faces international competitors. Regional jet maker Embraer, coming from the less than 100-seat commercial aircraft market, continues to develop larger airplanes and is working towards a strategic partnership with Boeing. Additionally, other competitors from Russia, China and Japan will enter the 70 to 150 seat aircraft market over the next few years, and today are studying larger types.

In October 2017, Airbus SE and Bombardier Inc. agreed to form a partnership in relation to the C Series. Having received all required regulatory approvals, Airbus SE, Bombardier Inc. and Investissement Québec closed the C Series transaction effective on 1 July 2018 and as a result, the Company has acquired a majority stake in the C Series Aircraft Limited Partnership.

The partnership brings together two complementary product lines, the A220-100 and A220-300, targeting the 100-150 seat market segment with an addressable market of at least 7,000 new aircraft over the next 20 years in the segments in which they compete.

The Mirabel-based partnership benefits from Airbus’ global reach, scale, procurement organisation and expertise in selling, marketing and producing the A220. Significant production efficiencies are anticipated by leveraging Airbus’ production ramp-up expertise.

Customers
As of 31 December 2018, Airbus had 414 customers and a total of 19,340 Airbus aircraft had been ordered, of which 11,763 aircraft had been delivered to operators worldwide. The table below shows Airbus’ largest commitments in terms of total gross firm orders by customer for the year 2018.

<table>
<thead>
<tr>
<th>Customer</th>
<th>Firm orders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avolon</td>
<td>100</td>
</tr>
<tr>
<td>Jetblue Airways</td>
<td>60</td>
</tr>
<tr>
<td>Moxy</td>
<td>60</td>
</tr>
<tr>
<td>Vietjet Air</td>
<td>50</td>
</tr>
<tr>
<td>Scandinavian Airlines</td>
<td>36</td>
</tr>
<tr>
<td>Lufthansa</td>
<td>32</td>
</tr>
<tr>
<td>Aegean Airlines</td>
<td>30</td>
</tr>
<tr>
<td>Delta Air Lines</td>
<td>25</td>
</tr>
<tr>
<td>Turkish Airlines</td>
<td>25</td>
</tr>
<tr>
<td>Viva Aerobus</td>
<td>25</td>
</tr>
</tbody>
</table>

(1) Options are not included in orders booked or year-end backlog.
(2) Excludes undisclosed customers.

Products and Services
The Family Concept — Commonality across the Fleet
Airbus’ aircraft families promote fleet commonality. This philosophy takes a central aircraft and tailors it to create derivatives to meet the needs of specific market segments, meaning that the A320, A330, A350 and A380 all share the same cockpit philosophy, fly-by-wire controls and handling characteristics. Pilots can transfer among these aircraft within the Airbus family with minimal additional training. Cross-crew qualification across families of aircraft provides airlines with significant operational flexibility. In addition, the emphasis on fleet commonality permits aircraft operators to realise significant cost savings in crew training, spare parts, maintenance and aircraft scheduling. The extent of cockpit commonality within and across families of aircraft is a unique feature of Airbus that, in management’s opinion, constitutes a sustainable competitive advantage.

In addition, technological innovation has been at the core of Airbus’ strategy since its creation. Each product in the Airbus family is intended to set new standards in areas crucial to airlines’ success, such as cabin comfort, cargo capacity performance, economic performance, environmental impact and operational commonality. Airbus innovations often provide distinct competitive advantages, with many becoming standard in the aircraft industry.

A220 Family. Complementing the A320 Family, the A220-100 and A220-300 models cover the segment between 100 and 150 seats and offer a highly comfortable five-abreast cabin. With the most advanced aerodynamics, CFRP materials, high-bypass engines and fly-by-wire controls, the A220 delivers 20 percent lower fuel burn per seat compared with previous generation aircraft. The type will serve a worldwide market for smaller single-aisle airliners, estimated at least at 7,000 such aircraft over the next 20 years. Airbus manufactures, markets and supports A220 aircraft under the “C Series Aircraft Limited Partnership” (CSALP) agreement, finalised in 2018.
1.1 Presentation of the Company

A320 Family. With more than 15,000 aircraft sold, and nearly 8,700 delivered, the Airbus family of single-aisle aircraft, based on the A320, includes the A319 and A321 derivatives, as well as the corporate jet family (including new members ACJ319neo and ACJ320neo). Each aircraft in the A320 Family shares the same systems, cockpit, operating procedures and cross-section.

At 3.95 metres diameter, the A320 Family has the widest fuselage cross-section of any competing single-aisle aircraft. This provides a roomy six-abreast passenger cabin, a high comfort level and a spacious under floor cargo volume. The A320 Family incorporates digital fly-by-wire controls, an ergonomic cockpit and a modern structural material selection. The A320 Family’s competitor is the Boeing 737 series.

To ensure this market leader keeps its competitive edge, Airbus continues to invest in improvements across the product line, including development of the A320neo Family. The A320neo incorporates many innovations including latest generation engines, Sharklet wing-tip devices and cabin improvements, which together will deliver up to 20% in fuel savings compared with earlier A320 family aircraft. The A320neo received joint Type Certification from the European Aviation Safety Agency (EASA) and the Federal Aviation Administration (FAA) in November 2015. The A320neo with Pratt & Whitney engines was the first variant in the Neo Family to receive Type Certification. The A320neo with CFM engines was certified in May 2016. The A321neo with Pratt & Whitney engines received Joint Type Certification in December 2016 and with CFM engines in March 2017. Type Certification for the A319neo with CFM engines was achieved in December 2018 with the variant with the Pratt & Whitney engine to follow.

The A320neo Family versions have over 95% airframe commonality with the A320ceo (current engine option) versions, enabling them to fit seamlessly into existing A320 Family fleets – a key factor for Airbus customers and operators.

Since its launch in December 2010, the A320neo Family has received 6,526 firm orders from 104 customers, with a total of 635 aircraft delivered to the end of 2018. A320neo deliveries commenced in February 2016 followed by the first A321neo in April 2017 and in November 2018 the first A321 LR. Overall, the A320 family retains a 56% share of the backlog against the Boeing 737 Family.

During 2018, Airbus received 577 gross orders for the A320 Family of aircraft and 541 net orders.

In October 2015, Airbus announced the decision to further increase the production rate of the Single Aisle Family to 60 aircraft a month in mid-2019, in response to strong customer demand and following thorough studies on production ramp-up readiness in the supply chain and in Airbus’ facilities.

A330 Family. With 1,734 aircraft sold (of which 238 A330neo) and 1,439 delivered, the A330 Family covers all market segments with one twin-engine aircraft type and is designed to carry between 247 and 287 passengers. The A330 Family offers high levels of passenger comfort as well as large under-floor cargo areas. The competitors of the A330 Family are the Boeing 767, 777 and 787 aircraft series.

The newest evolution to the A330 Family is the A330neo (new engine option), comprising the A330-800neo and A330-900neo versions. These aircraft incorporate latest generation Rolls-Royce Trent 7000 engines and enhanced aerodynamics for improved fuel efficiency. The first flight took place in October 2017 and both Type Certification and first delivery were achieved in 2018, with TAP taking delivery of its first three A330-900s during the year. The final assembly of the A330-800 started in November 2017 and the aircraft performed its first flight on 6 November 2018.
Airbus is continuously developing the A330 Family to keep the aircraft at the leading edge of innovations and future versions of the A330neo will offer increased take-off weight of up to 251 tonnes, offering a 15,000 km range for the A330-800.

In 2018, Airbus received 37 gross orders (27 net) for the A330 Family of aircraft including 18 for the A330neo, and delivered 49 aircraft to customers.

A330 FAMILY TECHNICAL FEATURES (CURRENT VERSION)

<table>
<thead>
<tr>
<th>Model</th>
<th>Entry-into-service</th>
<th>Passenger capacity(1)</th>
<th>Maximum range (km)</th>
<th>Length (metres)</th>
<th>Wingspan (metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A330-200</td>
<td>1998</td>
<td>247</td>
<td>13,450</td>
<td>58.8</td>
<td>60.3</td>
</tr>
<tr>
<td>A330-300</td>
<td>1994</td>
<td>277</td>
<td>11,750</td>
<td>63.7</td>
<td>60.3</td>
</tr>
<tr>
<td>A330-800neo</td>
<td>2018</td>
<td>257</td>
<td>13,900</td>
<td>58.8</td>
<td>64</td>
</tr>
<tr>
<td>A330-900neo</td>
<td>2018</td>
<td>287</td>
<td>12,130</td>
<td>63.7</td>
<td>64</td>
</tr>
</tbody>
</table>

(1) Three-class configuration.

A350 XWB Family. The A350 XWB is an all-new family of wide-body aircraft, designed to accommodate between 325 and 366 passengers. The A350 XWB features a wider fuselage than that of competing new generation aircraft, Rolls-Royce Trent XWB engines, A380 technology and over 50% composite material. The A350 XWB's main competitors are the Boeing 787 and 777 aircraft series.

With the Ultra-Long Range (ULR) version of the A350-900 launched in 2015, the A350 XWB demonstrates its versatility by offering the capability to perform flights of up to 19 hours. The first A350-900 ULR was delivered in September 2018 to Singapore Airlines.

Airbus has also developed the larger A350-1000, which is now certified by EASA and the FAA and was delivered to its first customer in February 2018 with a total of 14 aircraft delivered during the year.

In 2018, Airbus received 62 gross orders for the A350 XWB Family (40 net), and delivered 93 aircraft, achieving the target rate of 10 aircraft per month by the end of the year.

A350 XWB FAMILY TECHNICAL FEATURES

<table>
<thead>
<tr>
<th>Model</th>
<th>Entry-into-service</th>
<th>Passenger capacity(1)</th>
<th>Maximum range (km)</th>
<th>Length (metres)</th>
<th>Wingspan (metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A350-900</td>
<td>2014</td>
<td>325</td>
<td>15,000</td>
<td>66.8</td>
<td>64.8</td>
</tr>
<tr>
<td>A350-1000</td>
<td>2018</td>
<td>366</td>
<td>15,557</td>
<td>73.8</td>
<td>64.8</td>
</tr>
</tbody>
</table>

(1) Three-class layout.

A380. The double-deck A380 is the world’s largest commercial aircraft flying today. Its cross-section provides flexible and innovative cabin space, allowing passengers to benefit from wider seats, wider aisles and more floor space, tailored to the needs of each airline. Carrying 575 passengers in a comfortable four-class configuration and with a range of 8,000 nm / 14,800 km, the A380 offers superior economic performance, lower fuel consumption, less noise and reduced emissions. The A380’s competitor is the Boeing 747-8.

In 2018, Airbus Commercial Aircraft delivered 12 aircraft.

In February 2019, following a review of its operations, and in light of developments in aircraft and engine technologies, Emirates reduced its A380 orderbook from 162 to 123 aircraft. Emirates will take delivery of 14 further A380s over the next two years. As a consequence and given the lack of order backlog with other airlines, Airbus will cease deliveries of the A380 in 2021.

A380 TECHNICAL FEATURES

<table>
<thead>
<tr>
<th>Model</th>
<th>Entry-into-service</th>
<th>Passenger capacity(1)</th>
<th>Maximum range (km)</th>
<th>Length (metres)</th>
<th>Wingspan (metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A380-800</td>
<td>2007</td>
<td>575</td>
<td>14,800</td>
<td>72.7</td>
<td>79.8</td>
</tr>
</tbody>
</table>

(1) Four-class layout.

**Customer Services**

Airbus seeks to remain at the forefront of the industry by expanding its customer services offering to meet customers’ evolving needs. As a result, Airbus has developed a wide range of customer centric and value-added services. This approach provides Airbus operators with solutions to significantly reduce their operating costs, increase aircraft availability, enhance the quality of their operations and passenger experience.

Customer Services’ primary role is to support its customers in operating their Airbus fleet safely and profitably and to the satisfaction of passengers all around the world. As a result of its continued growth, Airbus‘ customer base has increased consistently over the past years reaching more than 10,700 aircraft in operation by the end of 2018 operated by more than 430 operators. The fleet is maintained by more than 100 Maintenance and Repair Organisations and partially owned by 100 leasing companies.
A worldwide network of more than 6,500 people cover all areas of support from technical engineering / operational assistance and spare parts supply to crew and maintenance training. Hundreds of technical specialists provide Airbus customers with advice and assistance 24 hours a day, 7 days a week. There are 142 field service stations available worldwide for on-site assistance to our operators, covering 159 operators. 216 operators are covered by 16 Hubs. Airbus worldwide support is also based on an international network of support centres, training centres and spares warehouses.

As the worldwide fleet is growing, so is the demand in the services market. Airbus offers optimised aircraft operational availability, streamlined flight operations and enhanced passenger experience by covering the full aircraft lifecycle and focusing on adding value to its customers. Growing fast on the market with organic growth, JVs, co-developments and acquisitions in recent years, here are some examples:

- in 2016, full acquisition of Navtech, now re-named Navblue, offering products in the Flight Operations area;
- in 2017, full acquisition of Sepang Aircraft Engineering (SAE), an MRO centre based in Kuala Lumpur, Malaysia, that had been partially owned by Airbus since 2011;
- launch of Airbus Interiors Services (2017) specialised in timely and flexible solutions for cabin equipments. For its first participation in the Crystal Cabin Award 2018, Airbus Interiors Services was among the finalists of the “Visionary Concepts” category, presenting its novel “Day & Night” concept seat;
- the Airbus MRO alliance was launched in 2017;
- the Airbus Training network has tripled in the last three years and currently counts 17 training network locations around the world, the latest acquisition being a flight training center in Denver, Colorado (January 2018). In December 2018, Airbus and the French Civil Aviation University, ENAC, have obtained EASA certification for a co-developed Ab initio Pilot Cadet Training Programme that will be used by a worldwide network of partner flight schools, starting with the first customer Escuela de Aviacao Mexico (EAM) in Mexico City early 2019;
- Airbus’ worldwide support is also based on an international network of support centres, training centres and spares warehouses all around the world, offering customers the solutions they need close to their operational base. To ensure this proximity Airbus empowered local teams and developed hubs in the regions, most recently in Asia and China;
- since the launch of Skywise at Le Bourget in 2017, Airbus has accelerated with its digital transformation. In October 2018, Airbus created the Skywise campus – “a place to foster internal and external collaboration” – and developing new ways of working, with customers at the heart of each service, to offer the best value proposition across the full lifecycle, securing and optimising their operations end-to-end, providing tailored solutions that deliver impactful outcomes and enhancing the user’s experience all along the way.

Skywise brings all the ecosystem data to a single platform. 52 customers have now chosen Skywise, representing a potential of over 4,000 aircraft connected.

Leveraging on Skywise digital capabilities, Airbus’ Customer Services portfolio offer is evolving to provide the best and most efficient solutions available on the market:

- FHS powered by Skywise: stepping-up services capabilities with digital Skywise (April 2018);
- launch of Skywise Reliability Services (October 2018);
- launch of Skywise Predictive Maintenance (October 2018).

Preparing the future of Airbus Services, at the Farnborough 2018 Air show Airbus presented its route to US$ 10 billion revenues in the next decade, to further address market needs.

Customer Finance

Airbus favours cash sales, and does not envisage customer financing as an area of business development. However, Airbus recognises the commercial need for manufacturers to assist customers in arranging financing of new aircraft purchases, and in certain cases to participate in financing those aircraft for the airline.

Extension of credit or assumption of exposure is subject to corporate oversight and monitoring, and follows strict standards of discipline and caution. Airbus’ dedicated customer finance team has accumulated decades of expertise in aircraft finance. When Airbus finances a customer, the financed aircraft generally serves as collateral, with the engine manufacturer participating in the financing. These elements assist in reducing the risk borne by Airbus. The difference between the gross exposure resulting from the financing and the collateral value is fully provisioned for (for further information, please refer to the “— Notes to the IFRS Consolidated Financial Statements — Note 25: Sales Financing Transactions”). Airbus’ customer financing transactions are designed to facilitate subsequent sell-down of the exposure to the financial markets, third-party lenders or lessors.

In 2018, Airbus continued to benefit from market appetite for both aircraft financing and sale and leaseback lessor opportunities, supported by a high level of liquidity available in the market at good rates for Airbus aircraft. Airbus customer financing exposure remained limited in 2018 and decreased compared to 2017. Airbus will continue to provide direct aircraft financing support as it deems necessary. Management believes, in light of its experience, that the level of provisioning protecting Airbus from default costs is adequate and consistent with standards and practice in the aircraft financing industry. See “— Risk Factors – Financial Market Risks – Sales Financing Arrangements”.

Asset Management

The Asset Management department was established in 1994 to manage and re-marketed used aircraft acquired by Airbus, originally as a result of customer bankruptcies, and subsequently in the context of certain buy-back commitments. The department operates with a dedicated staff and manages a fleet comprised of used aircraft across a wide range of models. Through its activities, the Asset Management department helps Airbus to respond more efficiently to the medium- and long-term fleet requirements of its customers.

Its key roles comprise commercial, technical and financial risk management of its used aircraft portfolio, as well as the enhancement of all Airbus products’ residual value.

It also provides a full range of remarketing services, including assistance with entry-into-service, interior reconfiguration and maintenance checks. Most of the aircraft are available to customers for cash sale, while some can also be offered on operating lease. In the latter, the Airbus Asset Management team aims at eventually selling down the aircraft with lease attached to further reduce its portfolio exposure.

At the end of 2018, the Asset Management portfolio contained 15 aircraft, representing a 44% net portfolio reduction from 2017.
Production

Industrial Organisation

Each task in the building of Airbus aircraft (from design to production) is allocated to a designated plant. The Airbus plants are typically organised around different aircraft components and sections, in component delivery teams. Each component delivery team is either in charge of one aircraft programme, or organised by manufacturing technology clusters depending on the optimum solution for each plant. Every plant is organised with production, engineering, quality, supply chain, manufacturing, engineering and logistics capabilities to ensure a seamless production flow of operations.

A transversal “Industrial Systems” Centre of Competences is in charge of ensuring that harmonised and standardised processes, methods and tools are developed and implemented across the plants, in order to increase efficiency, based on best practices. Another transversal “Manufacturing technologies” Centre of Competences is in charge of disseminating new technologies and innovation in manufacturing across the plants and preparing manufacturing solutions for future product evolutions.

Following production by the respective plants, the various aircraft sections are transferred between the network of sites and the final assembly lines using dedicated transport means, such as the “Beluga” Super Transporters.

Programme management is then responsible for the final assembly line activities. The programme management works closely with the plants to secure delivery of aircraft sections to the final assembly lines on time, cost and quality.

In 2018, construction started on the new FAL in Mobile, Alabama (US) for the A220. The first A220 delivery from Mobile is expected in mid-2020.

Airbus announced the following programme production rates:
- A220 family: by next mid-decade, rate 10 per month targeted in Mirabel and rate 4 per month targeted in Mobile;
- A320 family: rate 60 per month targeted by mid 2019 with a 4th A320 line in Hamburg, Mobile fully on schedule and Tianjin (China) ramping up further;
- A350: rate 10 reached at the end of 2018;
- A380: Airbus expects to deliver 8 aircraft in 2019, 7 in 2020 and the remaining 2 in 2021.

Engineering

Airbus Engineering is a global organisation that develops civil aircraft and aircraft components, and that conducts innovative research applicable to the next generation of aircraft. Airbus Engineering operates transnationally, with most engineers employed in France, Germany, the UK and Spain. A growing population of experienced aerospace engineers is also employed worldwide at five other engineering centres in Wichita (Kansas, US), Mobile (Alabama, US), Moscow (Russia), Bangalore (India) and Beijing (China).

A key part of the Airbus engineering organisation is the architect and integration centre, which ensures, together with a team of senior aircraft architects and the programme chief engineers, that a consistent and multi-disciplinary approach is applied during aircraft development.

Research & Technology activities continue to deliver incremental innovations for existing aircraft, matured breakthrough technologies, with reinforced focus on industrial aspects. Airbus Engineering is a major contributor to numerous international initiatives dedicated to the preservation of the environment and the reduction of noise and CO₂ emissions. Fully integrated change projects are also implemented to continuously implement innovative and efficient ways of working.

Regional Aircraft, Aerostructures, Seats and Aircraft Conversion

ATR

ATR (Avions de Transport Régional) is a world leader in the market for regional aircraft up to 90 seats. Its aircraft are currently operated by more than 200 airlines in over 100 countries. ATR is an equal partnership between Airbus and Leonardo, with Airbus’ 50% share managed by Airbus. Headquartered in Toulouse, ATR employs more than 1,400 people. Since the start of the programme in 1981, ATR has registered net orders for 1,717 aircraft (483 ATR 42s and 1,234 ATR 72s).

In 2018, ATR delivered 76 new aircraft (compared to 78 in 2017) and recorded net firm orders for 46 new aircraft (compared to 103 in 2017), including orders from NAC/Silver. As of 31 December 2018, ATR had a backlog of 205 aircraft (compared to 235 in 2017).

Products and Services

**ATR 42 and ATR 72.** ATR has developed a family of high-wing, twin turboprop aircraft in the 30- to 78-seat market which comprises the ATR 42 and ATR 72, designed for optimal efficiency, operational flexibility and comfort. Like Airbus, the ATR range is based on the family concept, which provides for savings in training, maintenance operations, spare parts supply and cross-crew qualification. ATR is now entering the cargo market as 2018 is the year of the launch of the ATR72/F (Freighter) with a brand new windowless fuselage, a forward Large Cargo Door (LCD) and a rear upper hinged cargo door. First delivery is planned in 2020 to FedEx.

By the end of 2018, ATR had delivered 1,512 aircraft.

**Customer service.** ATR has established a worldwide customer support organisation committed to supporting aircraft over their service life. Service centres and spare parts stocks are located in Toulouse, Paris, Miami, Singapore, Bangalore, Auckland, Sao Paulo and Johannesburg. ATR worldwide presence also includes representative offices in Beijing and Tokyo.

**ATR Asset Management** addresses the market for second-hand aircraft by assisting in the placement and financing of used and end-of-lease aircraft. ATR Asset Management activity is marginal today as the leasing market has strongly developed since 2007.

Production

The ATR fuselage is produced in Naples, Italy, and ATR wings are manufactured in Merignac near Bordeaux, France. Final assembly takes place in Saint Martin near Toulouse on the Airbus commercial aircraft production site. Flight-testing, certification and deliveries also occur in Toulouse. ATR outsources certain areas of responsibility to Airbus, such as wing design and manufacturing, flight-testing and information technology.
1.1 Presentation of the Company

Information on the Company’s Activities /

1.1.1 Overview

Airbus Helicopters is a global leader in the civil and military rotorcraft market, offering one of the most complete and modern ranges of helicopters and related services. This product range currently includes light single-engine, light twin-engine, medium and medium-heavy rotorcraft, which are adaptable to all kinds of mission types based on customer needs. See “— 1.1.1 Overview” for an introduction to Airbus Helicopters.

1.1.3 Helicopters

Strategy

Airbus Helicopters’ strategy is to continue driving improvement initiatives via its company-wide digital transformation plan, which places customer satisfaction, quality and safety at the core of its operations, along with increasing industrial competitiveness.

A Commitment to Innovation

Development of the next-generation H160 medium helicopter – the first of the “H Generation” – is ongoing at a steady pace.

STELIA Aerospace

STELIA Aerospace is a wholly-owned subsidiary of Airbus. It offers global solutions for aeronautical manufacturers and airlines supported by its aerostructure, cabin interior and pilot seats business lines.

As one of the world leading tier-1 aerostructure suppliers, STELIA Aerospace designs and manufactures fully integrated aircraft sections for civil and military programmes.

From aircraft wings and fuselage sections, to fully equipped and tested work packages, STELIA Aerospace is a global partner for major aeronautical players worldwide, such as Airbus, ATR, or Bombardier Aerospace.

With more than 7,000 employees worldwide, working within 11 Centres of Excellence based in France, Canada, Morocco and Tunisia, STELIA Aerospace has a wide range of capabilities, from Build-to-Print to Design & Build solutions, including mechanical milling of rolled and stretched panels and tubes & pipes covering all ATA systems.

Through its cabin interior specialty, STELIA Aerospace designs and manufactures luxury First Class and Business Seats for key partners in the world including Etihad Airways, Singapore Airlines or Thai Airways.

By combining innovative materials and technology with a drive to improve the passenger experience, STELIA Aerospace has created an outstanding range of seats used in civil aircraft globally.

STELIA Aerospace – a joint world leader Pilot seats manufacturer – provides cockpit and pilot seats for all kinds of aircraft, and offers support from design to production, including after-sales service.

As part of its development strategy, STELIA Aerospace has taken a majority stake in Portalliance Engineering end of 2018. Portalliance Engineering is an SME founded in 2006 and focuses on modelisation and digital simulation of structural calculation. This acquisition will enable STELIA Aerospace to benefit sustainably from innovative digital solutions and strengthen its position on the aerostructure market.

Premium AEROTEC

Premium AEROTEC is a wholly owned subsidiary of the Company (consolidated within Airbus), is one of the world’s leading tier-1 suppliers of commercial and military aircraft structures and is a partner in the major European international aerospace programmes.

Its core business is the development and production of large aircraft components from aluminum, titanium and carbon fiber composites (CFRP). Premium AEROTEC is Europe’s no. 1 in this segment with roughly 10,000 employees at various sites in Germany and Romania. Premium AEROTEC is represented by its products in all Airbus commercial aircraft programmes. The current military programmes include the Eurofighter “Typhoon” and the new military transport aircraft A400M.

Besides main customer Airbus, Premium AEROTEC will further intensify business with other customers and actively approach other aircraft or structural manufacturers. Premium AEROTEC is also striving to expand its maintenance, repair and spare parts business.

In order to contribute successfully to the shaping of the future of aviation, the engineers and developers at Premium AEROTEC are continuously working on the new and further development of lightweight and highly durable aircraft structures. They cooperate closely with universities and research institutes in the process. Premium AEROTEC plays a significant role in the design of new concepts in such fields as carbon composite technologies (incl. thermoplastic processes) or 3D-printing of aircraft components made of titanium or aluminum.

Elbe Flugzeugwerke GmbH — EFW

EFW combines various aviation and technology activities under a single roof: development and manufacturing of flat fibre-reinforced composite components for structures and interiors, the conversion of passenger aircraft into freighter configuration, maintenance and repair of Airbus commercial aircraft as well as engineering services in the context of certification and approval.

On 17 June 2015, Airbus signed an agreement with Singapore-based ST Aerospace Ltd. (STA) to offer passenger-to-freighter (P2F) conversion solutions for its A320 and A321 aircraft. STA acquired an additional 20% of the shares of EFW, Dresden (Germany) by way of a contribution in kind and a capital increase to EFW. The transaction closed on 4 January 2016. Consequently, 45% of the shares of EFW were retained and Airbus effectively lost its control over EFW (previously reported in Airbus).