2.1 Operating segments

In early 2013, the Group has set up a matrix organisation based on:

- six Global Business Units, divided into three operating segments: Aerospace (Avionics, Space), Transport (Ground Transportation Systems) and Defence & Security (Secure Communications and Information Systems, Land & Air Systems, Defence Mission Systems);
- an international organisation split into the major industrial countries in which the Group is present (Germany, France, the Netherlands, the UK, Canada, the United States and Australia & New Zealand), other European countries and emerging markets.

2.1.1 AEROSPACE SEGMENT

The Aerospace segment includes the Avionics and Space Global Business Units.

The Avionics Global Business Unit offers a large array of equipment and functions for piloting, navigation and aircraft control systems, electrical generation and conversion, and in-flight entertainment and connectivity systems. This activity also includes simulation and training solutions for military aircraft and civil and military helicopters as well as microwave or imaging subsystems. As a partner with the major aircraft manufacturers and airlines, Thales is a player in the entire value added chain of the aviation sector, in addition to its space and air traffic management business.

The Space Global Business Unit offers spatial systems and solutions, in particular in the fields of telecommunications, radar and optical observation of the Earth, satellite navigation and exploration of the universe. The strategic partnership in the space sector between Thales and Finmeccanica – the Space Alliance – responds to the significant environmental, scientific, security and information society development challenges and is based on the complementary solutions offered by Thales Alenia Space (67% owned by Thales) in satellite systems and by Telespazio (33% owned by Thales) in related services.

2.1.1.1 Key data

	2014	2013
Order book at 31 December	€8,687 m	€7,881 m
Order intake	€5,024 m	€4,297 m
Sales	€5,014 m	€4,713 m
EBIT[a]	€505 m	€420 m
Consolidated headcount	17,935	17,299

(a) Non-GAAP indicator. See definition in the section entitled "Presentation of Financial Information" in the Group management report on page 8.

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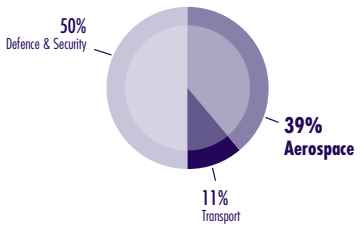

2.1.1.2 Avionics

2.1.1.2.1 General overview

Thales manufactures flight avionics systems, passenger cabin equipment and systems and flight simulators for helicopters and military aircraft. In addition, the Group offers microwave and imaging subsystems.

The portfolio of flight avionics systems and equipment comprises on-board electronics systems, including helmets display, for aircraft navigation and handling for civil and military fixed-wing and rotary-wing aircraft.

Thales also supplies electrical generation and power conversion equipment.

In the cabin systems market, Thales's offer is focused on the in-flight entertainment and passenger connectivity segment. In addition, the Group offers lighting and aircraft interior systems through Diehl Aerospace.

In simulation and training, Thales provides flight simulators for several European defence programmes and provides training for pilots, particularly for helicopters, via the Helisim joint venture.

Microwave subsystems (tubes and power amplifiers) are aimed at the space and defence market, as well as at some telecommunications and civil industrial applications, while imaging subsystems are aimed at the medical radiology market.

2.1.1.2.2 Competitive position

As one of the leading players on the avionics market, Thales is a supplier for the civilian and military aircraft manufacturers AgustaWestland, Airbus Group, ATR, Bell, Boeing, Bombardier, Dassault Aviation, Embraer, Gulfstream, NHIndustries, Sikorsky and Sukhoi. The other major players in this field are the US companies Honeywell and Rockwell Collins. The growth of this business therefore correlates directly to the change in production rates of aircraft manufacturers.

In the passenger cabin systems segment, Thales is one of the world's top two players with Panasonic Avionics.

There are numerous competitors on the simulation solutions market, particularly from US defence companies such as Lockheed Martin, Raytheon and L3Com.

Thales continues to be a global market leader in microwave and imaging subsystems.

2.1.1.2.3 Significant events in 2014

In **Civil avionics**, the year was notable for the certification of the Airbus A350 XWB by the EASA (European Aviation Safety Agency) followed by its delivery to Qatar Airways. The first successful flight of the A320neo was also an important milestone for Thales, since it incorporated a new flight control computer.

In addition, Thales delivered to ATR a series of developments in connection with the evolution of the "standard 2" of the ATR-600 avionics suite. The various aeronautical certification authorities approved the automatic landing function offered by Thales aboard the Sukhoi Superjet 100, enabling airplane to operate at visibilities on the ground of less than 200 feet. Finally, Thales was selected to develop and implement advanced flight control solutions for the future business airplanes Gulfstream G500 and G600.

Among signed agreements with airline companies, the Taiwanese company TransAsia Airways chose Thales's avionics suite for its 18 new A320 airplanes. China Eastern Airlines's new fleet of Airbus single-aisle airplanes will also be equipped with the most recent avionics solutions, including surveillance systems, flight management systems and head-up displays (HUD).

In **Training & Simulation**, 2014 was marked by the opening of the A400M team training centre at the Brize Norton Royal Air Force base in the United Kingdom, which was built by Thales and is managed by a joint venture between Thales and Airbus Group. The first FFS (Full-Flight Simulator) supplied by Thales was installed at this A400M pilot school. The British Defence Minister also awarded Thales a several million pound contract to supply a second A400M flight simulator, which will also be installed at the training centre in 2015.

In Australia, Thales will provide simulators for Australian naval and ground force helicopter team training, including three EC135 Full Flight simulators, as well as support service and maintenance. In addition, Thales continued to pursue its strategy of developing local, tailored training centres for civilian helicopter operators. For example, in 2014 it opened the first training centre for AS350 helicopter pilots in Albertville, France.

Thales expanded its **in-flight entertainment** business through the acquisition of LiveTV. The Group thus obtained new multimedia solutions to equip airliners with multi-band, high-speed connectivity solutions. In 2014, Thales also launched its 4th generation system AVANT, which has already been selected by 12 airlines for installation on board various platforms (A330, A350, A380, B737, B777, B787). In all, Thales equipped 184 aircraft with its in-flight entertainment systems in 2014 .

In the area of **Helicopter avionics**, Thales will supply its Integrated Electronic Stand-by Instrument (IESI) for the modernisation of the Brazilian army's Equilo/Fennec helicopter fleet. The IESI integrates essential standby functions of artificial horizon, altimeter and anemometer within a compact, single piece of equipment. Thales's Scorpion helmet display was chosen to equip Thales's future Airbus Helicopters weapon systems.

In the area of **Military avionics**, Thales delivered the second tactical version of the systems developed for the A400M, including innovative functions, some of which were designed in connection with the SESAR (Single European Sky Air Traffic Management Research) studies.

With respect to **Electrical Systems**, major milestones were reached in connection with the Dassault Aviation Falcon 5X Programme.

In airline support, Thales was among the top ten in the Airbus Supplier Support Ranking for the eighth consecutive year. Airbus also commended Thales for its customer-support performance for in-flight entertainment, naming it best in class in-flight entertainment supplier. In terms of maintenance contracts, the Chinese company Sichuan Airlines renewed its confidence in the Group with respect to maintenance of Thales components.

In 2014, Thales reinforced its position as a worldwide leader in the area of **Microwave & Imaging Sub-Systems**, having significant commercial success in exporting, in particular to Asia, in defence, with delivery of the first transmitters to the South Korean army.

2.1.1.3 Space

2.1.1.3.1 General overview

Thales Alenia Space is a joint venture between Thales (67%) and Finmeccanica (33%) and a partner in the Space Alliance, along with Telespazio.

Thales Alenia Space has more than 40 years of experience in the design, integration, testing, operation and commissioning of innovative space systems. These cutting-edge systems meet the needs of commercial, government, scientific, defence and security customers from around the world. The satellites and payloads designed by Thales Alenia Space have become the global standard for space systems that provide communications and navigation services, monitor our environment and the oceans, help us better understand climate change and drive scientific progress. Thales Alenia Space is also a leading supplier to the International Space Station, and a pivotal player in space systems designed to explore the Universe.

Thales Alenia Space is one of the world's leading designers of **telecommunications satellites**, platforms and payloads, a market that accounts for 50% of its business. The company offers a wide range of solutions, from supplying high-performance equipment to turnkey systems. The Spacebus NEO family of geostationary platforms meets the needs of operators from around the world. The payloads designed by Thales Alenia Space have proven their performance, reliability and competitiveness on satellites made by all leading space industry manufacturers. Thales Alenia Space is one of the world's foremost players in low/medium earth orbit mobile communications constellations, with a total of 117 satellites on order (81 Iridium NEXT, 12 O3b and 24 Globalstar Second Generation).

In the military segment, Thales Alenia Space operates in the design and production of extremely secure telecommunications systems and observation systems and high-resolution radar and optical payloads. It offers space and ground telecommunications and observation segments, as well as dual civil and military systems. It is at the heart of the Franco-Italian cooperation with the Sicral and Athena Fidus programmes.

In the area of **Earth observation**, Thales Alenia Space is a leader in high- and very high-resolution optical and radar payloads, in which it is a major exporter, supplying military, dual or civilian missions: information gathering, target designation, map-making and crisis management, meteorology, oceanography and climatology, etc.

For the last three decades, the European Space Agency (ESA) and Eumetsat have awarded Thales Alenia Space the contract for Europe's meteorological satellites (the three generations of Meteosat satellites), as well as the Copernicus environmental missions and spatial altimetry, an

activity in which the radars of Thales Alenia Space are the standard in ocean and ice surveillance.

Thales Alenia Space is now also prime contractor for Exomars, ESA's most ambitious Mars mission, following the success of Herschel and of Planck, the largest space observatories ever developed in Europe. The company is also the contractor for EUCLID, ESA's scientific satellite dedicated to the understanding of dark matter. On the ground, it deployed radioastronomy antennae on the Atacama Plateau in Chile under the ALMA programme for the European Southern Observatory.

Thales Alenia Space is also at the origin of satellite navigation in Europe as prime contractor for Egnos, the precursor to Galileo, and has a major role in its development with Galileo system support, participation in the In-Orbit Validation phase, which consists of manufacturing the first four satellites of the constellation, and especially in the deployment of the ground-based mission segment (Galileo Mission Segment) for the full constellation.

In manned space flight, Thales Alenia Space is a major contributor to the International Space Station (ISS), supplying more than 50% of its pressurised volume and heavily involved in the ATV (Automated Transfer Vehicle) for ESA and Cygnus for NASA, which will supply the ISS. In addition, the company is developing the IXV atmospheric re-entry demonstrator for ESA.

Thales Alenia Space also contributes to the European policy on access to space through the provision of the on-board electronics for the Ariane rocket and the on-board backup system for Soyuz in Guyana.

2.1.1.3.2 Competitive position

The satellite market is a dynamic but highly competitive market. In the commercial satellite segment, the main competitors of Thales Alenia Space are MDA (SSL Loral), Airbus Group, Orbital Sciences Corporation, Boeing and Lockheed Martin. Going forward, the commercial challenge is the capacity to offer satellite solutions with electric-only propulsion. Other international manufacturers (Russian, Chinese, Indian, Israeli, Japanese, etc.) have gradually emerged on the commercial market with increasingly competitive solutions both in telecommunications and in observation.

The leading competitors in the institutional market in Europe, which depends to a large extent on the budgetary situation of governments, are Airbus Group and OHB, which may also be partners depending on the programme.

2.1.1.3.3 Significant events in 2014

In connection with Ambition Boost, the Group's global performance plan, Thales Alenia Space has implemented several initiatives to ensure its growth while maintaining the quality that is at the heart of its strategy and favouring innovation. It has made R&D investments in order to launch new products. Finally, it has implemented a plan to extend Thales Alenia Space's international footprint.

The first results of the plan enabled Thales Alenia Space to obtain four contracts in 2014, for five telecommunication satellites: Yamal 601 for the Russian operator Gazprom Space System, Koreasat 5A and Koreasat 7 for KTSAT in South Korea, Inmarsat S/HellaSat 3, a shared satellite for Inmarsat and Arabsat, and Telkom 3S for the Indonesian operator Telkom. The European Space Agency has announced Phase B of the NEOSAT programme to develop new geostationary satellite platforms.

In the area of Earth observation, a new tranche of financing for the new generation COSMO-SkyMed programme was approved by the Italian Space Agency (ASI), and the French Space Agency (CNES) selected Thales Alenia Space to build the SWOT (Surface Water and Ocean Topography) satellite, which is intended to be used for oceanography and hydrology. Finally, the Falcon Eye contract relating to two high-resolution optical observation satellites for the United Arab Emirates entered into force.

In 2014, Thales Alenia Space participated in 12 launches, including in particular Athena Fidus, the first success from the Franco-Italian cooperation on a dual mission; the Sentinel 1A, which opens the door for the ESA's Copernicus programme; and lastly, the second cluster of the O3b constellation, for which responsibility was transferred to the customer on 13 August 2014, now in orbit and operational. The third cluster of four O3b satellites was also launched in late December.

In terms of technology and innovation, new products were launched in the areas of optical observation and high-resolution radar. Emphasis was placed on the development of the Spacebus line under the name Spacebus NEO, with a hybrid propulsion offering and a fully electric version planned for 2015. Finally, in terms of innovation, Thales Alenia Space reinforced its capacities in this area with the Stratobus, a geostationary stratospheric platform that has been part of the French industrial development plan since July 2014.

Thales Alenia Space's international growth accelerated in 2014 with the opening of a new site in Louvain, Belgium, the creation of a new subsidiary in the United Kingdom (which integrated the space activities of SEA, a company that was later acquired), as well as the project to create Thales Alenia Space Brazil, a subsidiary intended to oversee the technology transfer provided for in the SGDC contract won in 2013.

2.1.2 TRANSPORT SEGMENT

Thales provides transport infrastructure operators and managers with systems and services to operate their investments to best effect by optimising their operational performance, offering the best passenger experience, and managing the growing complexity of transport systems. Thales solutions help increase the capacity of transport infrastructures and promote the highest safety in the transport of people and goods, rapidly and cost effectively.

2.1.2.1 Key data

	2014	2013
Order book at 31 December	€3,615 m	€3,329 m
Order intake	€1,652 m	€1,454 m
Sales	€1,402 m	€1,447 m
EBIT[a]	€32 m	€97 m
Consolidated headcount	6,139	5,910

(a) Non-GAAP indicator. See definition in the section entitled "Presentation of Financial Information" in the Group management report on page 8.

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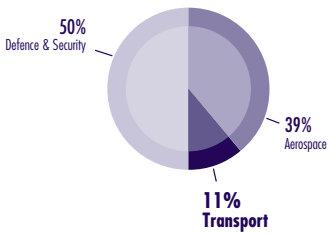

2.1.2.2 Ground Transportation Systems

2.1.2.2.1 General overview

The Group is one of the leading players worldwide in transportation systems: rail signalling, monitoring and supervision for urban, suburban and mainline transportation networks, and ticketing.

In rail signalling, Thales provides systems for conventional and high speed mainline networks, in addition to metro, tram and suburban networks.

In terms of monitoring and communications, Thales leverages its expertise in critical information supervision systems to offer transport network operators integrated solutions. They can thus monitor and effectively control critical operations (from traffic to power and communications management) and implement efficient solutions to satisfy passengers by offering a higher quality of service while helping to improve passenger, network and personal safety.

Thales is also a large player in passenger payment collection solutions, in particular for public transit operators, and has long experience with multimodal and multi-operator ticketing systems.

2.1.2.2.2 Competitive position

Thales addresses the ground transportation business, whose growth is linked to a great extent to urban planning, with a portfolio of automation and services solutions dedicated to the operation, security and safety of rail infrastructures. Specialised in intelligent critical systems and services, Thales distinguishes itself from its "generalist" competitors, who offer a range of products dominated by rolling stock. Its key capabilities make Thales a recognised leading player with strong positions in these markets.

The competitive landscape varies significantly depending on the segment targeted by Thales. In signalling, Thales is a major player, its main competitors being Siemens, Alstom, Ansaldo STS and Bombardier. In terms of supervision and telecommunications, the major generalist players are also present, as well as more local and/or specialist providers such as HollySys, Indra and Singapore Technologies Engineering. In Revenue Collection, the main Groups competitors are Cubic, Parkeon, Scheidt & Bachmann and Xerox.

2.1.2.2.3 Significant events in 2014

In **main lines**, Thales won a contract from PKP Polish Lines S.A. in Poland to deploy an ERTMS solution including the AITrac ETCS Level 2 signalling system and the GSM-R communication system on two branches of the Warsaw-Lodz line. The ETCS (European Train Control System), the European standard for train control, permits transparent border crossing while significantly increasing railway infrastructure capacity and the safety of operations.

In the United Kingdom, Network Rail launched an ambitious plan to modernise its mainline traffic management, with 12 regional operational centres. Network Rail selected Thales to equip the first two centres, in Romford and Cardiff, with the NetTrac Aramis solution.

In France, the SNCF entered into a contract with Thales to replace the signal control point at Vitry-sur-Seine with the electronic interlocking solution LockTrac PIPC, permitting an optimal level of safety while increasing the number of trains that can travel on the line.

In Spain, Thales joined with Siemens to win two signalling, supervision and telecommunications contracts to equip more than 500km of lines on the high-speed Antequera/Granada and Olmedo/Orense sections.

Thales won several maintenance contracts for mainline lines, in particular in Portugal and in Spain. In ticketing, Thales was awarded a maintenance contract by the Dutch railway company NS for more than one thousand access gates installed in the country's largest train stations. More generally, the mainline activity is sustained by framework agreements to provide LockTrac electronic interlocking systems, in particular in France, Germany, Austria, Switzerland and Norway.

In Morocco, the consortium formed by Thales, Huawei and Imet won a contract to supply the railway operator ONCF with a turnkey communication system based on the GSM-R standard. As the leader of the consortium, Thales runs the programme.

In addition, Thales has had several other successes in emerging markets. For example, Thales gained a foothold in Nigeria, winning a contract to provide an integrated signalling and telecommunications system for the future 330-km line between Itapké and the Port of Warri.

In India, Thales won a first ETCS Level 1 contract from Southern Railways to modernise the Basin Bridge-Arakkonam section in Southern India.

In Mexico, Thales was selected to deploy its signalisation ETCS Level 2 technology on the suburban rail line between Mexico City and Toluca, the capital of the State of Mexico.

In **urban transport**, the SelTrac® CBTC signalling solution for metro invented by Thales is an automatic train control system allowing operators to increase traffic on their lines by reducing intervals between trains with optimal safety.

This solution was selected for the modernisation of two networks in the United States: for the San Francisco metro, in order to prolong an existing line, and for the University of West Virginia, which also selected Thales ticketing systems, passenger information systems and centralised operational control systems to modernise its campus rapid transit network.

In Germany, Thales won a contract to equip the Mehringdamm station of Line U6 of the Berlin metro with its LockTrac ESTW L905 NV electronic interlocking solution.

In France, the Bordeaux Metropolitan Area selected Thales to replace its existing ticketing system with a contactless multimodal and interoperable ticketing system.

In addition, Thales's Urban Transport Unit won numerous contracts in emerging markets. In Brazil, SelTrac® CBTC will equip two future metro lines in Salvador, whilst the Sao-Paulo metro selected Thales's telecommunications systems for a future line in its network.

In Chile, Thales won a contract from the Santiago metro to supply an operational control centre for two lines, and to carry out the migration of the SCADA energy system (for management and optimisation of electrical consumption) for the entire network.

In Azerbaijan, Thales for the first time signed a contract with the Bakou metro to supply an integrated supervision and telecommunications solution for Phase 1 of the Purple Line.

In Qatar, Thales won a contract to equip the future Lusail tramway with a complete solution including ticketing, telecommunications, supervision and security systems.

In China, Thales's joint venture SAIC Transportation System Limited Company won six metro-line signalling contracts. It will supply the SelTrac® CBTC solution to the metros of Hefei, Shenzhen, Wuhan, Guangzhou and Shanghai.

In India, Thales will equip the 80 stations of Phase III for the Delhi metro, which extends over 100km, with a ticketing system including 900 access gates. Thales also won the contract to provide a ticketing system for Phase 2 of the Gurgaon metro.

2.1.3 DEFENCE & SECURITY SEGMENT

2.1.3.1 Key data

	2014	2013
Order book at 31 December	€14,915 m	€13,226 m
Order intake	€7,608 m	€7,114 m
Sales	€6,480 m	€6,456 m
EBIT[a]	€620 m	€499 m
Consolidated headcount	31,257	31,131

(a) Non-GAAP indicator. See definition in the section entitled "Presentation of Financial Information" in the Group management report on page 8.

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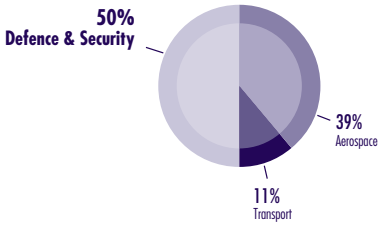


Thales is a long-standing partner to military and security forces around the world, providing support on the ground to increase operational effectiveness as well as ensure the highest levels of protection.

Thales designs systems for all sectors: land, air, naval, space and cyberspace. These systems detect and assess threats, manage information, support rapid command decisions and control engagements, through to threat neutralisation, with maximum reliability. By facilitating the coordination of joint or coalition forces operations, they contribute to the decision-making superiority of the forces.

As new risks emerge, defence alone cannot protect against new threats such as trafficking, terrorism, organised crime, cyber-attacks, natural disasters, etc.

This convergence of defence and security requires new solutions and technologies to be implemented to facilitate the sharing of existing information and communication systems, as well as the protection of networks and infrastructure.

The Defence & Security segment, with a primarily government customer base, leverages Thales's expertise in these various fields. Logically, the evolution in this business is closely linked to changes in threats and defence spending in the countries in which the Group operates.

2.1.3.2 Secure Communications and Information Systems

2.1.3.2.1 General overview

At the heart of the defence-security continuum, Thales offers interoperable and secure information and telecommunications systems for military forces, security forces and essential operators. These activities, which include radio communications, networks, protection systems, and critical information and cybersecurity systems, respond to the needs of markets in which new technologies such as 4G mobile communications, cloud computing and *big data* are of utmost importance. Thales is present throughout the value chain, from equipment to systems and systems of systems, logistical support and related services.

These businesses represent four major segments:

- **Radio Communication Products.** Thales designs radios and embedded and tactical communication solutions for the three environments (ground, air and sea), navigation systems, identification (IFF[1]) systems, and force-protection systems. The armed forces of more than 50 countries around the world are equipped with Thales solutions. The Group is a major player in the development of high-performance, secure Software Defined Radio (SDR) solutions. The contractor for the Contact programme in France, it is also present at the European level with the Essor programme and in the United States with the Rifleman programme;

(1) Identification Friend or Foe.

- **Network and Infrastructure Systems.** Ensuring the security, integrity, service continuity and resilience of deployable or mobile infrastructure and telecommunications networks are major challenges for governments, armed forces and essential businesses. The solutions designed by Thales respond to the needs of the most exacting customers in the world. For instance, Thales offers services ranging up to the operation and management of secure networks for the armed forces, even in theatres of operations. For example, for more than eight years Thales has operated the ISAF[1] Communications and Information Systems in Afghanistan and deploys capacity for the armed forces currently engaged in Mali. In France, the Group is managing the development and deployment phases, through to operation of the information, communication and security systems of the future Ministry of Defence site;
- **Protection Systems.** Thales develops information, command and intelligence systems for armed forces. The Group also responds to the growing safety needs of nations (identity management systems, border control and surveillance), of cities (urban security, crisis management, security for large events) and of critical infrastructure (protection of airports, of public transportation, of sensitive sites, and of energy sites). These solutions are intended to improve operational safety and efficiency by facilitating rapid decision-making by the operators of the command and control centres or in mobile situations, and by providing their users with relevant, clear and immediate information about their environment;
- **Critical Information Systems and Cybersecurity.** Thales actively contributes to the performance, resilience and security of the critical information systems of its customers, public bodies or large businesses, in particular essential infrastructure operators, who are confronted with numerous advances in computer programming and the continuous evolution of cyber threats. Thales supports its customers from the analysis of security challenges (detection and audit) to supervision of critical information system security, through the phases of design, integration of tailored products and solutions, maintenance and evolution of systems, as well as maintaining them in safe condition. Thales also provides security products and solutions (confidential or defence secret) in 50 countries, including the NATO countries. The Group is among the worldwide leaders in securing banking transactions, in particular through its Hardware Security Modules (HSM).

2.1.3.2.2 Competitive position

Thales has a variety of competitors, both at the sector and geographic levels, depending on the business.

In defence applications - radiocommunications, networks, and command and control - the main competitors are American: Harris, General Dynamics and Raytheon. The Israeli company Elbit Systems is also a competitor. In Europe, Airbus Group is active, as are Rohde & Schwarz, particularly in the areas of naval communications and electronic war, and Aselsan, essentially for radiocommunications.

In security, Thales's competitors are primarily in the aeronautic and defence sector (Boeing, Northrop Grumman, Honeywell, Airbus Group, etc.) or in the information systems sector (IBM, Atos, Capgemini, etc.). The latter are also competitors of Thales in critical information systems.

Finally, in cyber security, Thales is in competition with companies like RSA or Gemalto in the civil arena and BAE Systems, Ultra Electronics, Airbus Group and Secunet in defence.

2.1.3.2.3 Significant events in 2014

In France, Thales is continuing to pursue the Contact programme, which beginning in 2018 will deliver the first **Software Defined Radio (SDR) solutions** for ground, aeronautic and naval armed forces. In the United States, Thales obtained a pre-series contract for the soldier radio Rifleman, and pursued its experiments with the MBITR 2 - the first two-channel portable radio - for the American armed forces. In Europe, Thales was chosen by three major countries (France, United Kingdom and Germany) for the Mode 5 renovation of IFF systems for aircraft. In export, the Group recorded significant orders for VHF and HF tactical radios in several countries in the Middle East and Asia. Thales confirmed its position among the leaders on the market for military vehicle intercommunication systems with the signature of contracts in the Middle East and in Australia for its Sotas system.

Finally, Thales took 100% control of APEC, which develops "command and control systems" and tactical radios in Spain and now operates under the name Thales Programmas.

In **Secure Infrastructure and Networks**, Thales was chosen by the armed forces of Qatar to supply a satellite military communications system. This new system will provide long-distance communication capacity to the ground and naval forces for their missions of national security and protection of the country's vital interests. In France, for the new headquarters of the Ministry of Defence, Thales is already operating the critical information and security systems for the users that are already installed.

With respect to **Protection Systems**, in 2014 Thales had numerous successes in this fast-growing segment. Mexico City decided to entrust the Group with doubling the size of its urban security system and with the maintenance of its solutions. Thales was awarded new contracts by new clients for the protection of critical infrastructure in the oil, port, and airport segment (first global supervision system signed in France with Aéroports de Lyon). The Group, which is in charge of security for the holy sites of Mecca, was awarded a new contract to extend the system. It was also in charge of security for the G20 summit held in November in Brisbane, Australia. In the area of biometrics and identity management, Thales confirmed its strong position on the French market, with a doubling of biometric stations (Bionet contract extended to 400 stations) and supplied Switzerland's first biometric visa stations.

In defence, in France, the DGA launched the Scorpion programme and chose the group composed of Nexter, Renault Trucks Défense and Thales for the renewal of all of its armoured combat vehicles, including support equipment for information systems and for battlefield digitisation. Thales will be responsible for the electronic architecture of the vehicles. With this contract, combined with the contract already awarded for the Contact Software Defined Radio, Thales reinforces its position as the electronics provider of reference for the digitisation of the battlefield and for development and information within the Land Force's platforms.

Several clients renewed their confidence in Thales for their C4I[2] systems, in particular Canada, Australia and France, with the SIC21 for the Navy and the construction of the foundation for the Army Information System (SIA).

In **Critical Information Systems and Cyber Security**, Thales acquired Alcatel-Lucent's cyber security business and signed a commercial partnership giving it access to the market for telecommunications operators and infrastructure security. Thales reinforced its competitive position in the supervision of critical information systems security by obtaining a major contract from a global financial services leader. Several large providers of cloud computing services, as well as two American distributors of digital content, chose Thales's nShield cyber security solution to secure their businesses.

(1) International Security Assistance Force (ISAF). The ISAF is the military component of the coalition, under the aegis of NATO and under UN mandate, operating in Afghanistan since 2001.

(2) Computerized Command, Control, Communications and Intelligence.

Finally, several agreements were signed to create cyber security chairs, in particular with the University of Qatar and with the Naval Academy and Telecom Bretagne, in cooperation with DCNS and the Brittany region.

2.1.3.3 Land and Air Systems

2.1.3.3.1 General overview

Thales systems and equipment help to make airspace safer and more secure. In civil **air traffic control,** Thales's portfolio ranges from conventional navigational aids to radar and air traffic control centres, surveillance systems, satellite navigation and airport management solutions.

Thales plays a key role as architect and integrator for the air traffic management of the future, mainly through initiatives such as ICAO's[1] Aviation System Block Upgrades in Europe and the NextGen programme in the United States. Thales remains the leading Industrial Partner of the SESAR[2] project In Europe.

In the military domain, Thales owns 50% of Thales Raytheon Systems, a leading international air defence company. Since its creation in 2001, Thales Raytheon Systems has sold air defence radars, including the GM200 and GM400 built by Thales, and command and control centres for military airspace throughout the world, ensuring the protection and security of forces and resources deployed in over 60 countries. Thales Raytheon Systems is notably prime contractor for NATO's Air Command and Control System (ACCS).

Moreover, Thales offers in all continents, one of the broadest lines of civil and military, ground based and naval radars on the market, for surveillance, air traffic management and fire control.

Thales offers a wide range of **weapons systems** for : medium-range (SAMP/T), short-range (Crotale and RAPIDDefender) and very short-range markets (RAPIDFire and RAPIDRanger). The Group also specialises in multirole weapons systems based on the new lightweight multirole missile (LMM) family, which includes a guided, free-fall variant. Thales is also a major player in the munitions sector: rocket mortar systems, metric precision munitions, missile and bomb fuzing systems, vehicle close protection systems, soldier systems and battlefield protection systems.

In **optronics**, Thales designs and manufactures components and systems for day and night surveillance, reconnaissance, protection and target acquisition on all types of land, sea (surface and subsurface) or air platforms for defence and security customers worldwide. Thales's expertise in optics is also applicable to the commercial fields of zoom lenses for film-making and lasers for scientific research.

Thales designs, manufactures and supports **armoured military vehicles** including the Hawkei and Bushmaster. Thales provides integrated capability solutions at all levels of the value chain from subsystem supplier, to system integrator, mission systems design authority and prime contractor. The open architecture systems of vehicles provides highly standardised "plug and play" capability for on-board sub-systems and products, increasing vehicle capability and performance whilst reducing size, weight and operator workload and whole life system costs.

2.1.3.3.2 Competitive position

Thales's expertise in all aspects of air traffic control (automation, navigation, surveillance and satellite communication) is widely recognised by the world's civil aviation authorities. With over 40% of the world's airspace controlled by TopSky-ATC, Thales is at the forefront of air traffic control systems and civilian radars.

Other major players in the civil sector are the US groups Lockheed Martin and Raytheon, European companies Indra and Finmeccanica (Selex), and in some niche areas Saab, Frequentis and Exelis.

In the military segment, Thales's main competitors are the US groups Lockheed Martin, Northrop Grumman, and Raytheon, and Finmeccanica, Airbus Group, BAE Systems, Indra and Saab in Europe.

Thales is one of Europe's leading suppliers of medium-range, short-range and very short-range missiles and weapon systems. Other principal players in this field in Europe (MBDA) and the US (Raytheon and Lockheed Martin) are also major customers of Thales's missile electronics and key partners in weapon systems.

Thales is one of Europe's foremost optronics suppliers facing competition in this segment from US suppliers (Raytheon and Flir Systems). The protected vehicles systems market segment is dominated, on an international level, by BAE Systems, General Dynamics, Rheinmetall, Krauss-Maffei Wegmann and Nexter, with Thales operating in Europe as an independent integrator both for its own and other suppliers' equipment within complex mission systems.

2.1.3.3.3 Significant events in 2014

In **air traffic management,** Thales (jointly with NATS, through the dedicated The Aquila Air Traffic Management Systems joint venture) was awarded a 22-year contract with the UK Ministry of Defence to transform air traffic management at all its military airfields, including the provision of new equipment, system upgrades, maintenance, support services and training. A number of contracts for civil air traffic control systems and radars were signed in Europe (Bulgaria, Belgium, Czech Republic, France, UK and COOPANS[3]), in the Middle East, in Asia, in Africa and in Central and Latin America. Regarding navigational aids, the main contracts were signed in the United States, Africa and Asia. A leader of ATM innovation, first industry partner in the European single-sky programme SESAR, Thales has contributed to the success of I-4D flight test, TOPMET prototype flight test and has successfully passed important validations. The Group also introduced SHAPE, its future vision of the Air Traffic Controller Working Position.

Thales delivered 15 **radars** from the Ground Master family to air forces and Thales Raytheon Systems signed contracts for 16 GM400 and GM200 radars to insure low and medium altitude surveillance of French territory. Two additional Ground Master 60 have also been ordered by another country. In weapon locating radars, Thales signed a major contract with a customer in Middle Eastern countries for Cobra radar. In the naval domain, DCNS has selected Smart-S Mk2 radars to equip Gowind frigates for Egypt. In addition, the French Ministry of Defence signed a development contract for the new Sea Fire 500 multifunction AESA radar, which has been officially launched during the Euronaval show.

Various important system tests and on-site tests were successfully completed as a demonstration of the operational capabilities of the NATO Air Command and Control System (ACCS), including theatre missile defence capability. The deployment phase is currently under way in Italy, France, Belgium and Germany.

(1) International Civil Aviation Organization (ICAO).

(2) Single European Sky ATM Research.

(3) COOPANS: air traffic management system involving Austria, Croatia, Denmark, Ireland and Sweden.

In the sphere of **advanced weapons systems,** 2014 was marked by the delivery of last SAMP/T to the Italian and French forces. Thales signed a contract for the ForceSHIELD Integrated Air Defence system and STARStreak missiles for the Indonesian Ministry of Defence, integrating radars, communications, engagement and fire control systems, launchers and missiles to meet front-line users' needs. The Lightweight Multi-role Missile (LMM) was selected to meet the UK MoD's requirement for a Future Anti-Surface Guided Weapon which provides the Royal Navy with a versatile, rapidly-deployable and highly-effective capability to defeat the threat from small ships and inshore attack craft. In the context of the UK Multi-mission System Technical Demonstrator programme, successful missile firings from the RAPIDRanger multi-role launcher have taken place.

Thales also conducted a successful demonstration firing of its sub metric precision 68mm laser-guided rocket incorporating induction technology, from a Tiger HAP helicopter for a programme overseen by the french Defense Procument Agency (DGA). The Group also signed a significant contract with the French Ministry of Defence to develop and qualify the next generation of insensitive ammunitions for both the 81mm and 120mm mortars family devoted to reinforce security, terminal effect and logistic performances.

In 2014, several export contracts were won in the **Optronics** domain in particular in the Middle East and Asia. In France, Optrolead (a joint company of Thales and Safran) has been selected for the renovation of the Scorpion programme optronics suite. Thales also successfully launched its long range thermal imager with more than 600 units ordered and also recorded the first full operational flight of its MIRAS Missile Warner System on board A400M.

In the field of **lasers,** Thales confirmed its market position on intense laser intended for scientific research with the notification of contracts in Romania, Germany and Japan.

For **Armoured Vehicle Systems,** Thales won two new export markets, Japan and Jamaica, for its Bushmaster vehicle, and also continued to progress on the development of the Hawkei for the Australian light armoured vehicle procurement programme. In the UK, a new vehicle-mounted surveillance capability was delivered to the Ministry of Defence, additional mission systems for Foxhound patrol vehicles were ordered and further quantities of rifle sights were supplied through the Future Integrated Soldier Technology (FIST) programme.

2.1.3.4 Defence Mission Systems

2.1.3.4.1 General overview

Thales has recognised global positions in airborne combat, intelligence, surveillance and reconnaissance electronic systems as well as in naval surface and underwater combat systems.

For **airborne combat missions,** Thales produces, in cooperation with Dassault Aviation, radar systems and equipment for the Rafale, the Mirage 2000 and the future combat UAVs, as well as electronic radar Air French Radar Naval Aviation systems, designed to detect threats and to protect platforms.

For airborne intelligence, surveillance and reconnaissance missions, Thales designs naval patrol and surveillance, ground and air surveillance solutions, including a range of electromagnetic-based intelligence-gathering sensors. These systems, installed on airborne platforms, integrate surveillance radars, acoustical sub-systems, electromagnetic support measure equipment, and data links. Thales also designs complete UAV systems with intelligence, surveillance, target acquisition and reconnaissance capabilities.

In **surface naval warfare,** the Thales offering covers all combat systems with the integration of equipment (radar, electronic warfare, infrared sensors, etc.), weapons systems, communications and command equipment, as well as naval platform engineering capabilities.

In **underwater warfare,** the Group offers a broad line of products including the submarine sonar suite, hull-mounted and towed array sonar for surface ships, anti-mine systems incorporating multiple sonars, including using unmanned underwater vehicles, as well torpedo acoustic heads.

2.1.3.4.2 Competitive position

In electronic combat systems, Thales is one of the leading European players, competing with Finmeccanica (Selex), BAE Systems, Lockheed Martin, Raytheon and Northrop Grumman in addition to Airbus Group, General Atomics and Elbit in intelligence, surveillance and reconnaissance systems.

In surface naval systems, Thales is one of the principal European players, alongside Finmeccanica (Selex), Saab and BAE, and competes with Lockheed Martin. In underwater warfare, Thales is one of the principal European players along with Atlas Elektronik and Ultra Electronics, and is in competition with the American companies Lockheed Martin, Raytheon and L3.

2.1.3.4.3 Significant events in 2014

Electronic Combat Systems. The ASTAC tactical reconnaissance pods were adapted for the French Mirage 2000s, in order to carry out reconnaissance missions heretofore carried out by Mirage F1s. Several demonstration flights of the complete renovated Mirage 2000 system for the Indian Air Force were successfully carried out. In addition, the first phase of studies relating to the suite of multifunction sensors for the future Franco-British combat UAV began in collaboration with Finmeccanica. The French Ministry of Defence awarded Thales a technological studies contract concerning the future generation of active electronically scanned array. Finally, the first Rafale modernised to the F3 standard was delivered to the French Navy.

Airborne surveillance and intelligence systems. A memorandum of understanding with the armed forces of Qatar was signed to jointly develop an optionally piloted aircraft composed of a high-performance ISTAR system. The final standard for the maritime patrol aircraft for the Turkish Meltem 2 programme was delivered. The I-Master radar now has a maritime mode that permits it to visualise mobile targets on sea in addition to its ISR[1] terrestrial capabilities. The British Watchkeeper tactical UAV system is currently in use in Afghanistan. It contributes to support and protect the British land forces. The new multi-role airborne surveillance radar Searchmaster was launched: the ATL2 mission aircraft from the Air French Naval Aviation will be the first to be so equipped.

(1) Intelligence Surveillance Reconnaissance.

Surface naval systems. The Malaysian Royal Navy ordered six SMART-S Mk2 naval surveillance radars for patrol ships and second-generation coastline combat. The Netherlands acquired the new SCOUT Mk3 radar to equip an interservice support ship. Poland signed a contract for the delivery of the integrated combat system as well as sensors for a patrol ship. The Australian Department of Defence renewed for a term of five years its award of service management and ship-maintenance operations for the royal navy at the port facilities of Garden Island in Sydney. At the same time, Thales will perform maintenance on Australian frigates of the Adelaide class.

Underwater warfare systems. The Malaysian Royal Navy ordered six Mk2 sonars for second generation patrol ships and coastline combat. Poland will equip the Komoran II mine hunter with acoustic systems. The British Royal Navy awarded the contract for support of the 2050 sonar used on the 13 Type 23 frigates. Three new products were launched: the BlueWatcher hull-mounted sonar and the related CAPTAS1 sonar for warships and offshore patrol vessels of over 300 tonnes, as well as the mine detector SeeMapper, intended to secure maritime zones by mapping the seabed.

2.2 Research and innovation

Thales needs to acquire increasingly sophisticated technologies, particularly in detection, analysis and decision-making fields, in order to design and develop critical information systems. These innovative solutions serve customers in the aeronautics, space, ground transportation, defence and security markets.

Thales's R&D strategy is based on the conviction that a successful high-tech company needs teams of high-level experts with the ability to understand and evaluate the findings of the world's best research centres. The durability of the alliances which the Thales group maintains with its strategic partners guarantees the construction of a solid technological foundation.

The research is carried out in accordance with guidelines aimed at giving the Group's operating units the competitive edge they need to ensure sustainable growth.

2.2.1 RESEARCH AND DEVELOPMENT - THE KEY TO COMPETITIVENESS AND GROWTH

Some 25,000 Thales employees, over 70% of them engineers, are involved in the Group's technical operations, ranging from research to engineering. In 2014 Thales spent €675m on self-funded R&D, representing 5.2% of sales.

A significant part of this budget is dedicated to upstream research, conducted both at Thales Research & Technology (TRT) laboratories and the Groups centres of expertise, in order to develop:

- new technologies;
- new system and product concepts;
- new engineering tools and methods for critical information systems.

2.2.2 FOUR KEY TECHNICAL DOMAINS

Governance of research and development of key technologies is split into four domains:

- hardware technologies: electronics, electromagnetism, optronics, acoustics, radiofrequency techniques and management of thermal constraints;
- software technology: signal and information processing computers, real-time on-board systems, distributed systems, service-oriented architectures, model-driven engineering, engineering tools, information systems safety and security;
- information and cognitive sciences: data fusion, data mining, autonomous systems, synthetic environments, human factors;
- systems: focused on architectural system design, this area provides support for methodology, processes and expertise.

FOCUS 1

NETWORK VIRTUALISATION SUPPORTING MORE RESILIENT NETWORKS

SDN (Software-Defined Network) is a new approach to design network architectures, which allows applications to be liberated from the IT infrastructure; to this end, software, in particular virtualisation technology, is integrated into systems and equipment. This innovation enables Thales to increase the resilience and security of its solutions and products.

This innovation takes advantage of the synergies between network architecture and cloud computing and is having an impact on the IT and telecommunications industries by speeding up the roll-out and integration of new services and facilitating their end-to-end management. SDN enables integration of key security technologies such as hypervisor security, encryption and traffic analysis tools at the heart of the solutions.

The Thales R&D teams have developed an initial SDN solution. It illustrates the resilient interconnection between the various "cloud computing" platforms using distributed architecture capable of adapting to constrained environments.

2.2.3 THALES AT THE HEART OF INNOVATION ECOSYSTEMS

Wherever it has an industrial presence, Thales seeks to build partnerships within innovation ecosystems, with academic partners design centres and industrial groups to jointly innovate on applications, business models and technologies.

To develop the technologies it needs, Thales relies heavily on cooperation between its research teams and the academic world. Thales Research & Technology (TRT), an international network of corporate laboratories, is responsible for building relationships with academic partners.

TRT has facilities in France, the UK, the Netherlands, Singapore and Canada. In France, the Palaiseau laboratory, located on the campus of the École polytechnique, is part of a unique environment of world-class research networks, "Digiteo" (information technologies) and "Triangle de la Physique" (Physics Triangle). It is also heavily involved in the programme to build up the world-class science and technology complex in Saclay.

Similarly, Thales's research centre in the Netherlands is located at Delft University, while the Singapore centre has partnered with Nanyang Technological University and with France's national research institute CNRS, in one of the few joint international research units with an industrial partner.

Thales has numerous strategic partnerships, for example, with the CNRS, ONERA, École polytechnique, Telecom Paris Tech, Université Pierre et Marie Curie (UMPC-Paris VI) and Université Paul Sabatier (Toulouse III), to name but a few.

The most advanced form of partnership is the joint laboratory operated by Thales with the CNRS for physics, with CEA-LETI in the 3-5 Lab (an EIG whose members are Alcatel-Lucent, Thales and CEA-LETI), with CEA-LIST for artificial vision and with UPMC in data mining.

Thales is positioned as a major player in numerous high-tech clusters (including System@tic Paris-Région, Aerospace Valley in the southwest, the Maritime clusters in Brittany and Provence-Alpes-Côte d'Azur, the Images et Réseaux – images and networks – telecommunications cluster in the Brittany region, etc.) and the IRT (Institut de Recherche Technologique Saint-Exupéry), of which it is a founding member.

In the United Kingdom, TRT has direct links to several major universities, including Cambridge and Bristol. Thales is an active member of a number of centres of excellence: the MVCE (Mobile Virtual Centre of Excellence) in mobile communications; the CSIT (Centre for Secure Information Technologies) based at Queen's University Belfast; the IVHM (Integrated Vehicle Health Management) at Cranfield University, and the CSIC (Centre for Smart Infrastructure and Construction) based at Cambridge University.

In Canada, the Group regularly works with research networks and institutions such as CRIAQ (Consortium de Recherche et Innovation en Aérospatiale au Québec), the University of Toronto, McGill University, the École polytechnique de Montréal and Laval University, with which Thales concluded an agreement for a joint research unit in urban sciences in November 2014.

In emerging countries, Thales is looking to spur its growth by establishing innovation platforms locally, using the tried and tested principles of joint innovation with local players, and in that way building close long-term relationships.

FOCUS 2

INNOVATION HUBS, CATALYSTS FOR THE R&D STRATEGY

In order to promote joint innovation with its clients, Thales is gradually rolling out "innovation hubs" in several regions of the world. These are based on new methodology approaches for collaborative design, combining simulation, visualisation and rapid prototyping. The innovation hubs of Thales are laboratories for identifying and analysing new operational requirements, creating and testing new applications.

By going one step further than simply adapting existing solutions for local markets, Thales is able to differentiate its product range to respond to specific client requirements, whether these are based on business segment, market maturity, operating requirements or the country's culture.

Two new innovation hubs were set up in Asia this year. Singapore is the very first multidisciplinary hub outside of Europe; it addresses maritime surveillance, smart cities and defence. The Hong Kong hub focuses on ground transportation. Thanks to the multicultural and multidisciplinary teams of Thales in Asia, local clients have access to the Group's portfolio of research and high technology solutions to meet their civil and military requirements.

Training also forms part of this overall strategy of creating links between the Group and the academic world. This is achieved by involvement in doctorate programmes and by the Group's support for teaching chairs.

The Group supports around 200 PhD students worldwide. They work on subjects directly connected with a technical issue facing Thales, which thus reinforces the appeal for young scientists.

Thales is already a partner for ten university chairs, and in 2014 participated in the creation of two new research and teaching chairs, thus confirming its commitment to higher education as the means of training the talent required by our industries. In September, together with Safran and Dassault Aviation, Thales created the "Aerospace and Defence" chair at the University of Bordeaux. In October, Thales, in partnership with Keyrus, Orange, École polytechnique and the École polytechnique Foundation created the Data Scientist chair to meet the challenge of training the talent to generate tomorrow's many innovations in "Big Data".

Thales also supports foundations such as the Fondation Télécom and the Fondation de Recherche pour l'Aéronautique et l'Espace, providing support for those training, research and innovation programmes, which fully match the Group's strategic orientation.

2.2.4 A DYNAMIC APPROACH TO INTELLECTUAL PROPERTY MANAGEMENT

Thales supports its R&D activities with a dynamic approach to intellectual property management.

In terms of the number of patents granted for its inventions (close to 400 new applications in 2014), Thales is on a par with most of its competitors. The continued large number of patent applications in recent years reflects the Company's commitment to innovation and its ability to translate research results into competitive advantages.

The Thales portfolio included more than 15,000 patents and patent applications at the end of 2014 and is regularly adapted to operational requirements, particularly to protect Thales's market share.

FOCUS 3

THE "BIG OPTICAL EAR"

Underwater sonar antennas can "listen" to the sounds made by moving objects in the marine environment up to several kilometres away. These sounds are converted into electrical signals using ultra-sensitive piezoelectric hydrophones, amplified and digitised underwater and then transmitted to a processing centre above water, which detects, positions and identifies the nature of the source of the sounds.

After studies lasting several years, the Thales research teams in cooperation with innovative SMEs have recently successfully tested in water an acoustic antenna demonstration platform using "All-Optical" technology. Made entirely from optical fibre and related components, this system does not require any underwater electronics. Information is transferred from the antenna solely by laser via a several kilometre long fibre optic cable with an extremely small diameter.

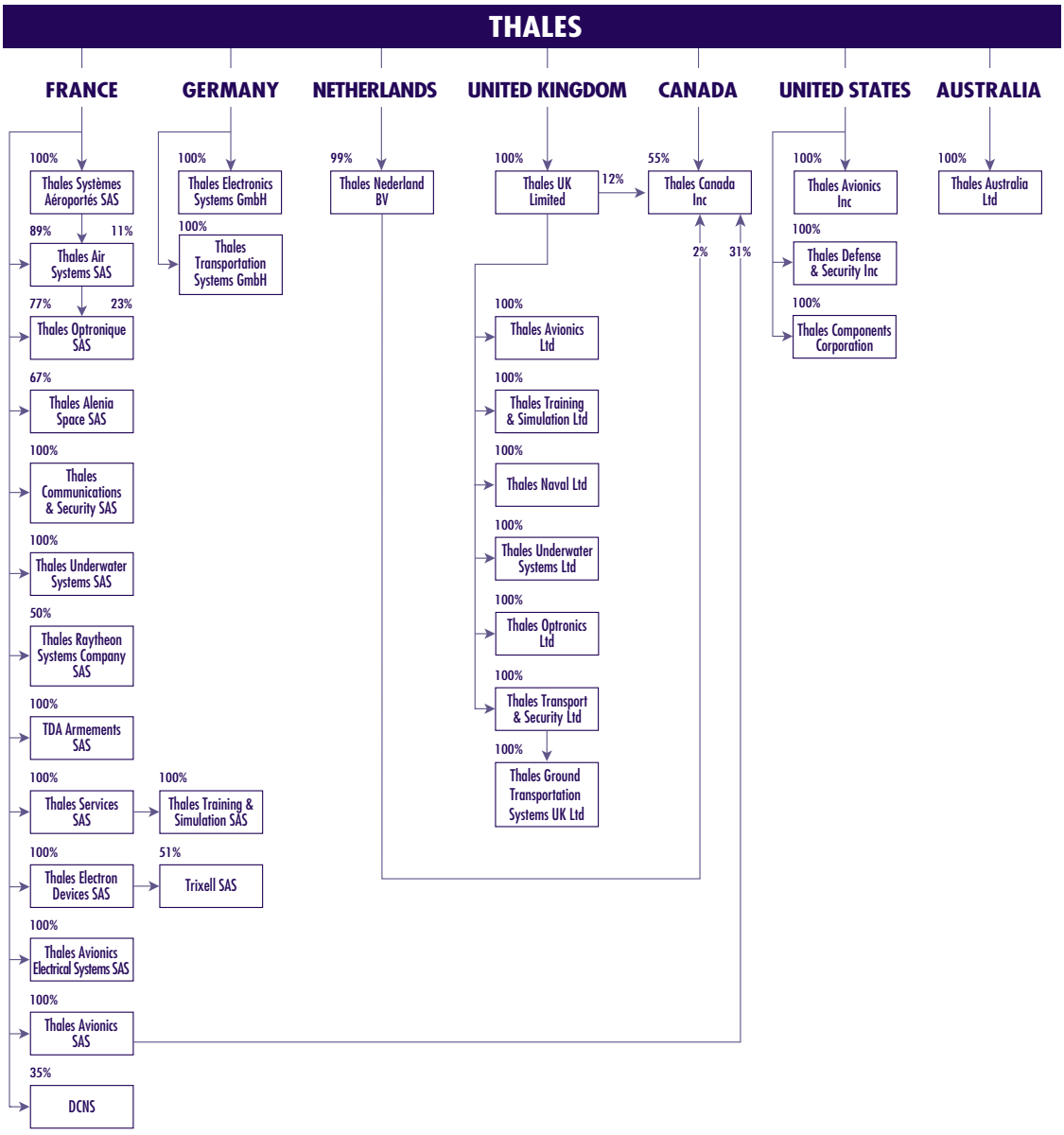
This disruptive technology has been patented by Thales and offers the Group's clients affordable new underwater acoustic surveillance capabilities: a large coverage area, remote enquiry at very long distances, a compact format and ease of installation, compatible with use at extreme depths.

2.3 Relations between Thales and its subsidiaries

2.3.1 SIMPLIFIED ORGANISATIONAL CHART OF THALES AT 31 DECEMBER 2014

This simplified organisational chart includes, in the main countries in which the Group operates, fully consolidated companies that account for more than 0.5% of consolidated sales.

The companies consolidated under the equity method are not included in this chart (with the exception of DCNS).



2.3.2 ROLE OF THALES PARENT COMPANY WITHIN THE GROUP

The parent company acts as a holding company for the Group:

- it holds shares in the Group's major subsidiaries;
- it manages Group-level functions such as corporate strategy, trading policy, legal and financial policy, operational monitoring, human resources policy and communications;
- it provides subsidiaries with specialist assistance, including legal, fiscal and financial expertise, for which the subsidiaries pay a fee;
- it provides financing, cash pooling and, where necessary, guarantees.

In addition to these functions, the parent company conducts its own research, described on page 131 *et seq.* of this document.

A list of the main consolidated companies can be found below.

2.3.3 FINANCIAL FLOWS BETWEEN THE PARENT COMPANY AND ITS SUBSIDIARIES

The parent company receives dividends from its subsidiaries, as approved by their respective General Meetings of Shareholders, and in accordance with the applicable legislation and regulations in their countries of operation.

In addition to these dividends and the payment of fees for shared services, the main financial flows between Thales the parent company and its subsidiaries relate to cash pooling.

As a rule, the cash surpluses of subsidiaries are transferred to the parent company under a centralisation system known as cash pooling. In return, the parent company meets the cash flow requirements of the subsidiaries, conducting operations in financial markets to arrange the necessary investments and loans to meet its own requirements and those of its subsidiaries. Except in special cases, this system applies to all subsidiaries in which Thales has majority control.

2.4 Information about major operational subsidiaries and manufacturing sites

2.4.1 LIST OF THE MAIN CONSOLIDATED COMPANIES (AS OF 31 DECEMBER 2014)

The materiality criteria used to prepare these tables have also been applied to the list of the main consolidated companies on note 17 to the consolidated financial statements.

2.4.1.1 Controlled companies (fully consolidated)

Company name	Registered office/city	Nationality	% of capital held by Thales	% of voting rights held
Live TV LLC	Melbourne, Florida	United States	100%	100%
TDA Armements SAS	La Ferté Saint-Aubin	France	100%	100%
Thales Alenia Space SAS	Cannes-La-Bocca	France	67%	67%
Thales Alenia Space Italia SpA	Rome	Italy	67%	67%
Thales Air Systems SAS	Rungis	France	100%	100%
Thales Australia Ltd	Potts Point	Australia	100%	100%
Thales Austria GmbH	Vienna	Austria	100%	100%
Thales Avionics SAS	Velizy-Villacoublay	France	100%	100%
Thales Avionics Inc	Irvine	United States	100%	100%
Thales Avionics Electrical Systems SAS	Chatou	France	100%	100%
Thales Canada Inc	Saint-Laurent	Canada	100%	100%
Thales Communications & Security SAS	Gennevilliers	France	100%	100%
Thales Defense & Security Inc	Clarksburg	United States	100%	100%
Thales Electronic Systems GmbH	Stuttgart	Germany	100%	100%
Thales Espana Grp SAU	Madrid	Spain	100%	100%
Thales Electron Devices SAS	Velizy-Villacoublay	France	100%	100%
Thales Italia SpA	Milan	Italy	100%	100%
Thales Nederland BV	Hengelo	Netherlands	99%	99%
Thales Norway AS	Oslo	Norway	100%	100%
Thales Optronique SAS	Elancourt	France	100%	100%
Thales Transportation Systems GmbH	Stuttgart	Germany	100%	100%
Thales Ground Transportation Systems UK Ltd	Addlestone	United Kingdom	100%	100%
Thales-Raytheon Systems Company SAS[a]	Massy	France	50%	50%
Thales Services SAS	Velizy-Villacoublay	France	100%	100%
Thales Solutions Asia Pte Ltd	Singapore	Singapore	100%	100%
Thales Systèmes Aéroportés SAS	Elancourt	France	100%	100%
Thales Transport & Security Ltd	Weybridge	United Kingdom	100%	100%
Thales Training & Simulation SAS	Osny	France	100%	100%
Trixell SAS[a]	Moirans	France	51%	51%
Thales Underwater Systems SAS	Valbonne	France	100%	100%
Thales UK Ltd[b]	Weybridge	United Kingdom	100%	100%

(a) Following a modification of the shareholders' agreement leading to taking full control of Thales-Raytheon Systems Company SAS and Trixell SAS within the meaning of IFRS 10. See note 3 to the consolidated financial statements.

(b) In 2014, Thales UK Ltd included the activities of Thales Air Defence Ltd, Thales Avionics Ltd, Thales Naval Ltd, Thales Optronics Ltd, Thales Underwater Systems Ltd and Thales Training & Simulation Ltd.

2.4.1.2 Joint ventures (consolidated by the equity method)

Company name	Registered office/city	Nationality	% of capital held by Thales	% of voting rights held
Air Command Systems International SAS (ACSI)	Massy	France	50%	50%
Citylink Telecommunications Holding Ltd	London	United Kingdom	33%	33%
DCNS	Paris	France	35%	35%
Diehl Aerospace GmbH	Uberlingen	Germany	49%	49%
Junghans Microtec GmbH	Dunningen-Seedorf	Germany	45%	45%
Samsung Thales Co. Ltd	Gumi-City	South Korea	50%	50%
Sofradir SAS	Chatenay-Malabry	France	50%	50%

2.4.1.3 Associated companies (consolidated by the equity method)

Company name	Registered office/city	Nationality	% of capital held by Thales	% of voting rights held
Aviation Communications & Surveillance Systems	Wilmington	United States	30%	30%
Air Tanker Holdings Ltd	Weybridge	United Kingdom	13%	13%
Cloudwatt	Boulogne-Billancourt	France	22%	22%
Elettronica SpA	Rome	Italy	33%	33%
ESG Elektroniksystem & Logistik GmbH	Fürstenfeldbruck	Germany	30%	30%
Thales-Raytheon Systems Company LLC	Fullerton	United States	50%	50%
Telespazio SpA	Rome	Italy	33%	33%

2.4.2 MAJOR MANUFACTURING SITES

As of the end of 2014, there were fourteen sites employing more than 1,000 staff:

At 31 December 2014	Headcount	Owned	Size (m²)
France			
Bordeaux (South-west)	2,126	Leased (Le Haillan), and Owned (Pessac)	59,000
Brest (Brittany)	1,399	Leased	56,000
Cannes (Provence)	1,899	Owned-Leased	83,000
Cholet	1,150	Leased	51,000
Gennevilliers (Île-de-France)	3,413	Leased	86,000
Élancourt (Île-de-France)	2,987	Leased	104,000
Massy (Île-de-France)	1,045	Leased	26,000
Meudon-la-Forêt/Vélizy (Île-de-France)	4,551	Leased	130,000
Rungis (Île-de-France)	1,095	Leased	31,000
Toulouse (South-west)	3,727	Owned-Leased	142,000
United Kingdom			
Crawley	1,867	Leased	34,000
Netherlands			
Hengelo	1,348	Owned	87,000
Australia			
Sydney	1,079	Leased	60,000
Germany			
Stuttgart	1,500	Leased	59,000