

THALES

The world is safer with Thales



Intelligence on-board

PROFILE

World leader in aerospace, defence and security systems,

Thales, with revenues of more than 10 billion euros, develops advanced technologies and services for its customers, leveraging a global network of 60,000 experts and the highly complementary nature of its businesses.

To achieve its objectives and satisfy its customers, Thales is pursuing a strategy based on three major strengths:

- **Strategic positioning:** Covering the entire value chain, Thales provides all the capabilities its customers require, from equipment and systems to comprehensive support services, and including prime contracting on large-scale programmes: air defence systems, joint systems, major naval programmes, military aerospace equipment, avionics, training and simulation services, air traffic management and large-scale security solutions. Thales is a key player on flagship programmes including the A380 and A400M, the French and British aircraft carriers, UAV systems, future soldier systems and the Tiger and NH90 helicopters. The company is also supporting the process of armed forces transformation through its integrated C4ISR solutions (Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance), and provides sensitive data and site security solutions.

- **A large-scale multidomestic presence:**

With industrial operations in nearly thirty countries, Thales maintains a local presence close to its customers in order to anticipate their needs and propose the technical and economical solutions that meet them best. Multidomestic operations throughout the world bring Thales access to a greater number of domestic markets, as well as additional opportunities to export from those markets. The company has successfully pursued its multidomestic strategy to emerge as the largest defence contractor in Australia, Korea and the Netherlands, and has achieved an exceptionally strong position in the United Kingdom, where it is the second-largest supplier to the Ministry of Defence.

- **Unparalleled technological capability:**

Thales solutions draw on an exceptional platform of technologies with applications across the company's whole range of businesses. With more than 20,000 high-level researchers, Thales offers a capability unmatched in Europe to develop and deploy critical information systems for defence and security markets. Thales maintains a portfolio of 12,000 patents and its research and technological development efforts are focused on future-oriented topics such as network-centric warfare, dual technologies and new-generation avionics – all crucial to success in the company's markets.

The company's civil and military businesses develop in parallel to serve a single objective: the security of people, property and nations.

MESSAGE FROM TH



Denis Ranque
Chairman and Chief Executive
Officer

“The highly complementary nature of our businesses and our exceptional technological potential are the basis of our capability to deliver.”

“As our financial performance and commercial successes continue to demonstrate, Thales is progressively consolidating its position as **one of the major world leaders in aerospace, defence and security systems**.

Financial performance. For the past five years, our business has grown substantially, with revenues increasing by 70%. The pattern of growth in new orders was slightly affected last year by the rescheduling of two major programmes – Watchkeeper in the United Kingdom and the FREMM multimission frigates – for which the contracts awarded to Thales in 2004 will be reflected in our 2005 figures. But order intake will be stronger from 2005. Today’s defence markets are tough, but **Thales is fortunate to be positioned in growth segments with promising outlooks**. Outside the defence sector, Thales is also well positioned to benefit from **favourable developments in aerospace and security markets**.

Operating income rose again in 2004, reaching 729 million euros, an increase of 4.4%. Our operating margin **exceeded 7%** for the first time ever, and our aerospace and defence businesses returned the best operating margin in Europe, with 8.5%.

We are firmly committed to further improvement in our financial performance and continued growth in our businesses. With our debt well under control, we have the financial room for manoeuvre to explore external growth opportunities.

We realigned our organisation with the changing marketplace last year when we formed our six new divisions, and we are continuing to leverage technical and operational synergies within the Group in pursuit of the same objective – **to continually “do better” in satisfying our customers today and keeping them satisfied tomorrow**.

Proud of our successes

This commitment to continuous improvement is bearing fruit, as **recent successes** show – in France, for example, with the Syracuse III and Rafale contracts, in Europe with the **FREMM** Franco-Italian multimission frigates, and in the United Kingdom with major programmes such as the **Watchkeeper** tactical UAV system, the FSTA air refuelling programme and latest-generation sonars for the **Royal Navy**. In the United States, our selection on the Joint

E CHAIRMAN

Tactical Radio System (JTRS) programme is quite an achievement for a company with such a strong European pedigree.

We are similarly proud to be contributing to some of industry's major adventures, beginning with **Airbus and, in particular, the A380**. This is an outstanding technological challenge, and all our energies across a whole range of capabilities – from avionics to simulators, electrical power generation and in-flight entertainment – are focused on stepping up to that challenge. Thales has also positioned itself well on the **A400M** programme. At the same time, Thales is successfully consolidating its partnerships with **Boeing and Sukhoi**.

A winning strategy for long-term success

Good financial performance and commercial successes have come as a direct result of the strategy we have pursued. The **three pillars** of that strategy are as follows:

- **Complete coverage of the value chain:** We are still a major equipment supplier, but we have also taken our offering to another level by designing and delivering large-scale systems, assuming prime contracting responsibilities and providing long-term support to our customers. As we move up the value chain, **the role of prime contracting and services is crucial**. Our customers increasingly expect comprehensive support solutions, rather than just equipment or systems. By combining our defence experience in the United Kingdom and our industry experience in France, we are in a position of strength in the market for services, which already account for **25% of our business**.

- **The multidomestic dimension is the second pillar of our strategy.** Revenues from our multidomestic operations have tripled in five years. It is now an accepted principle that the multidomestic approach to defence markets is **the only way** to anticipate the needs of customers and propose the best technological, financial and industrial solutions. **Solid growth** in the United Kingdom, Australia and Korea illustrates just how successful our approach is. Gone are the days of relying solely on mega-contracts, which were the engine of our growth in decades past. Today, **75%** of our sales come from countries where we are established as a local industry player.

- **Our major strength, and the third pillar of our strategy, is our leadership in the most advanced technologies and the dual technologies** required to propose the best security solutions to both civil and military customers. With 20,000 engineers working on dual technologies, **we represent by far the largest European capability in our domains**. Our pivotal role in numerous European research initiatives is a clear illustration of this leadership.

A crucial position

Thales can be proud of its success in an environment that is anything but easy – competition is increasing, the dollar is weak, and economic and geopolitical uncertainty abounds. Thales is **a central player** in its markets in Europe. However, we are well aware of **the importance of the American market**. We are satisfied with our joint venture with Raytheon and particularly proud of the achievements of our US subsidiary Thales Communications Inc., which is supplying the new generation of radio systems to the US armed forces. We want to build our presence in the United States, where most of our business is in civil and aerospace markets. **We are also determined to significantly strengthen our positions in the high-growth markets of Asia, where we are developing a growing number of technical and industrial partnerships.**

We will continue to develop our strategy, stepping up efforts to improve our competitive edge, reduce costs and leverage synergies between businesses.

The highly complementary nature of our businesses and our exceptional technological potential are the basis of our capability to deliver the most comprehensive and the most efficient solutions to our customers.

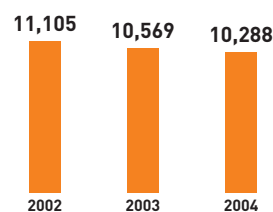


KEY FIGURES

A focused portfolio of businesses

The slight decline in revenues in 2004 is entirely attributable to divestments of non-core businesses since 2000 that have refocused Thales on its core capabilities.

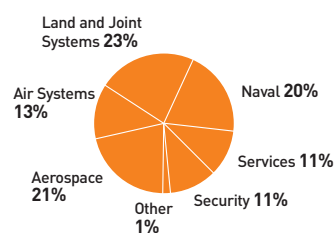
Revenues (in millions of euros)



Organised by market

Added focus called for a new organisation. Six divisions serve clearly defined customer communities within an organisation optimised for sharing across businesses and countries.

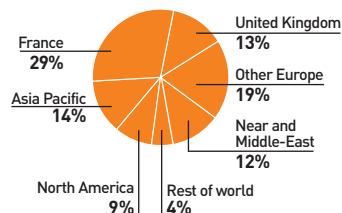
2004 revenues by division



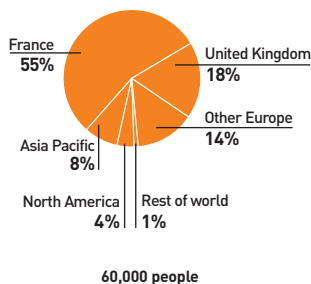
Multidomestic success

The geographical breakdown of sales and staff numbers clearly illustrates one of the company's major strengths: its international dimension.

2004 revenues by destination

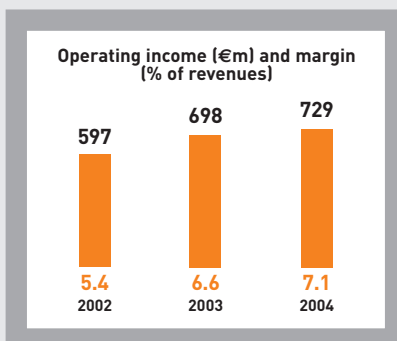


Staff numbers at 31 December 2004



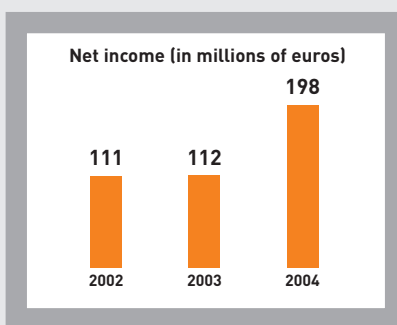
Improved operational performance

In 2004, operating income increased by 4.5% over 2003. Operating margin for the Thales group as a whole exceeded 7% of revenues for the first time, while EBIT rose by 25% from 497 million to 619 million euros.



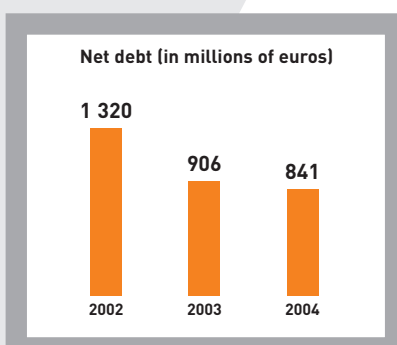
Substantially higher net income

In 2004, Thales recorded net income of €198 million, an increase of 77% on the previous year.



Further debt reduction

The company reduced its net debt for the fourth consecutive year in 2004. The net debt to debt-plus-equity ratio fell below 30%, compared with 43% at the end of 2000.



08 Intelligent on-board
solutions for aerospace
markets



12 Intelligent airspace
management



16 Intelligence at the heart
of the battle



Collective
intelligence
to serve our customers

20 Intelligent systems for naval platforms



24 Better intelligence for higher security



28 The intelligence to provide high value-added services



THALES IS ORGANISED AS SIX COHESIVE DIVISIONS TO BRING CUSTOMERS THE BENEFIT OF ITS EXTENSIVE TECHNOLOGY EXPERTISE AND INTERNATIONAL PRESENCE.

The company delivers **critical information systems** for defence, aerospace and civil security applications. Organised into six divisions, with each division serving a well defined set of markets, Thales can stay closer to its customers, develop solutions that are both efficient and competitive, and leverage synergies across businesses and countries. The six divisions draw on **a common platform of technologies** to deliver the real-time information management and distribution and complex system architectures their customers require.

The company's **international dimension** is another exceptional asset. With this extensive worldwide presence, Thales develops ties with governments and other local customers in each country of operation to meet national sovereignty requirements more effectively. By sharing its expertise and resources, Thales is stepping up to new challenges and anticipating its customers' future needs, consistently delivering sustainable and economical solutions that are grounded on critical technological capabilities.

Thales is supplying no fewer than thirteen on-board systems for the A380, the world's largest commercial airliner.

**On-board systems delivering
the very highest levels of precision,
reliability and usability.**



"We developed a new kind of variable-frequency power generator for the A380, with a simpler design, a lower weight factor and higher performance than conventional fixed-frequency systems."

Lucie Grosset,
Pitstone Green, United Kingdom



"The A380 will have the most advanced in-flight entertainment system ever developed for a commercial airliner. It is a technological challenge and a fascinating project in industrial as well as human terms."

Pierre Noel,
Irvine, United States



"The A380 is the first Airbus with a fully integrated modular avionics suite. All the modules are interconnected across an Ethernet network - a feat of engineering in itself!"

Éric Ceripa,
Meudon-la-Forêt, France

Intelligent on-board solutions for aerospace markets

AS ONE OF THE WORLD'S ONLY TECHNOLOGY PROVIDERS SERVING BOTH CIVIL AND MILITARY MARKETS, THALES IS A KEY PLAYER ON ALL TODAY'S MAJOR AIRCRAFT PROGRAMMES – COMMERCIAL AND REGIONAL AIRLINERS, COMBAT AIRCRAFT AND TRANSPORT PLANES, SPECIAL MISSION AND TANKER AIRCRAFT, HELICOPTERS AND UNMANNED AIR VEHICLES.

The company's aerospace businesses serve **three major market segments:**

- aeronautical equipment for civil and military aircraft
- mission electronics for combat aircraft
- airborne surveillance and mission systems for armed forces and civil security authorities.

In each, Thales is the European leader and ranks among the top few worldwide.

1/ AERONAUTICAL EQUIPMENT

Thales' capabilities in this area cover:

- avionics equipment and systems
- in-flight entertainment
- electrical power generation and conversion systems
- equipment for other utilities, including brake control units and door and slide management systems.

The company has extensive experience on all types of aircraft, including commercial airliners, business aircraft, regional aircraft, military aircraft, helicopters and UAVs.

The **outright European market leader in avionics**, Thales supplies equipment and systems to almost all the major aircraft manufacturers, including Airbus, Boeing, Bombardier, Dassault Aviation, Embraer, Eurocopter and Sukhoi.

The company recently delivered a new-generation digital head-up display system (D-HUDS) for the entire Airbus range, consolidating its position as a key supplier to Airbus. The first system of its type to use liquid crystal display technology, the D-HUDS is a major innovation in the development of the fully digital cockpit.

In-flight entertainment (IFE) systems allow passengers to enjoy a huge choice of films, music, games and other services during flights. The latest systems even provide in-seat telephone and full Internet connectivity. Thales' IFE systems equip all types of airliners and have been selected in particular by Air France and Malaysia

Airlines for their A380 fleets. Abu Dhabi-based Etihad Airlines has also selected TopSeries equipment for twenty-nine of its Airbus and Boeing aircraft.

Building on its successes on the A380 programme, Thales is equipping the A400M future military transport aircraft with flight management systems, cockpit display systems and modular avionics suites, in partnership with Diehl Avionik Systeme, a joint venture with Diehl. The company will also provide integrated displays for the Boeing 787 Dreamliner and the new Sukhoi RRJ regional jet. In February 2005, the AirTanker consortium was formally selected as the preferred bidder for the UK's Future Strategic Tanker Aircraft (FSTA) programme. Thales is a founding member of this consortium. This £13 billion (€19 billion) Private Finance Initiative (PFI) programme will provide the Royal Air Force with strategic in-flight refuelling services for twenty-seven years. Thales is responsible for defensive aids subsystems, military avionics, onboard mission management and planning systems and flight simulators, as well as support and training services for the duration of the programme.

Thales' avionics systems equip the Mirage and Rafale combat aircraft, as well as Eurocopter's civil and military helicopters, particularly for European countries' Tiger

Revenues
€2.1 bn

Employees
13,000

and NH90 military helicopter programmes. The company is leading a number of helicopter upgrade programmes for the British armed forces, and is providing AgustaWestland with avionics solutions for its A109 helicopter. The Thales TopOwl helmet-mounted avionics system, selected for Tiger helicopter pilots in France and Cobra pilots in the United States, has successfully completed operational testing by the two customers.

In **electrical power** generation and conversion systems, technical achievements and commercial successes in recent years have put Thales in a strong position to

benefit from new growth opportunities. Building on its experience on the A380, the company is developing the electrical power generation system for the Airbus A400M in partnership with Goodrich. Boeing also selected Thales to develop the electrical power conversion system for the 787 Dreamliner.

Thales also supplies **equipment for other on-board utilities**, including brake control units and door and slide management systems. Diehl Avionik Systeme is developing a complete electric door and slide management system for the A380.

The **maintenance** market is growing steadily. In readiness for the A380's entry into commercial service, Thales has formed a joint venture called OEM Services with Diehl Avionik Systeme, Liebherr and Zodiac to provide airlines with a single point of contact for their logistic services.

2/ MISSION ELECTRONICS FOR COMBAT AIRCRAFT

A combat aircraft's electronic mission system comprises target and threat detection systems, weapon control and self-protection systems and computerised navigation and attack. The mission system is **critical to the aircraft's operational performance**. System components are airframe-mounted, or in certain cases housed in pods beneath the aircraft.

Thales supplies complete electronic mission systems for combat aircraft, including:

- nose-mounted radars for surveillance and fire control
- electronic warfare subsystems for threat detection and self-protection
- processors for navigation and attack systems.

The company also supplies onboard optronic equipment (Infra-Red Search and Track, reconnaissance pods, laser designation pods, etc.) and radio systems.

Thales' leadership in this segment is due in no small part to its involvement in the Mirage and Rafale programmes in France, and Mirage export programmes for Greece, the United Arab Emirates and other countries.

In **radars**, Thales is supplying the RDY2 radar family for the Mirage, based on conventional mechanical scanning technologies. For the Rafale, the company developed one of the first electronic scanning radars on the market, the RBE2. It is currently developing the next generation of electronic scanning radar, with an active antenna for even higher performance.

Thales **electronic warfare systems** equip Rafale and Mirage combat aircraft on both French and export programmes. Here again, studies have been launched to develop the next generation of systems.

In 2004, Thales booked major equipment and systems orders for France's next series of 59 Rafale aircraft, now entering production. This series takes the number of Rafale combat aircraft equipped by the company to 120.

Cockpit displays, head-up displays, integrated modular avionics: the Thales systems that will equip the A400M future military transport aircraft are based on those developed for the A380 and represent a technological revolution.



Combat aircraft



Thales equipment for 120 Rafales

Thales equipment and systems — including the RBE2 electronic scanning radar, electronic warfare system, OSF forward-sector optronic system, avionics, target designation pod, communications and electrical power generation — make the Rafale the most advanced multi-role combat aircraft of its generation. Its reconnaissance system is a prime example of Thales expertise across the entire imagery chain, from acquisition to decision support. Imagery data recorded by the pod-mounted reconnaissance payload is transmitted in real time to a ground station, where it is processed within minutes and rapidly distributed to commanders.

Thales was awarded three other Rafale contracts last year: development of the Rafale F3 standard, development of a second demonstrator for the RBE2 combat radar with active antenna, and a seven-year through-life support contract for all the equipment supplied by Thales for Dassault Aviation's omni-role aircraft.

3/ AIRBORNE SURVEILLANCE AND MISSION SYSTEMS

Thales has achieved strong positions in airborne surveillance and maritime patrol systems through national programmes in France and the United Kingdom, and in export markets, particularly through the **Meltem** programme for the Turkish Navy and Coast Guard.

Based on its world-class capabilities as system architect and prime contractor, Thales has been selected by the British Ministry of Defence for the **Watchkeeper** programme. Using a range of tactical UAVs, Watchkeeper will be a key component of network-centric warfare and will provide the British armed forces with decisive **ISTAR** (intelligence, surveillance, target acquisition and reconnaissance) capabilities.

Thales is also a key partner in the Euro-American **TIPS** consortium (Transatlantic Industrial Proposed Solution), which has been selected by NATO to develop its future Alliance Ground Surveillance system based on a combination of manned aircraft and UAVs. The company's role includes development of a powerful observation radar.

Thales has set up the Battlespace Transformation Centre (BTC) to meet the challenges of armed forces transformation, particularly with respect to air operations, and to ensure a smooth transition from the systems in operation today to the systems of the future. The BTC is used to demonstrate different possibilities for progressively introducing new operational capabilities and services as network-centric operations and systems of systems become a reality.

The future now



Under the eyes of the Watchkeeper

Military intelligence is a vital resource enabling authorities to coordinate land, naval and air force units in the theatre of operations. Using a range of tactical UAVs, the UK's Watchkeeper programme will play a critical role by delivering accurate real-time imagery data of extremely high quality. A key component of network-centric warfare, Watchkeeper will provide the British armed forces with decisive intelligence, surveillance, target acquisition and reconnaissance capabilities.



Supporting its growth strategy in the in-flight entertainment market, Thales has developed an entirely new line of products, including the flagship TopSeries i-5000, and won a number of major contracts with airlines.



Thales has been selected to supply the electrical power conversion system and the integrated standby flight system display for the new Boeing 787 Dreamliner.

Thales has installed
a new air traffic
management
system in China.

An overall picture
of the air traffic
situation – instantly.



"China has more than 1,150 air routes. Our systems will control up to 60% of Chinese air traffic, which is increasing at over 10% a year. The programme is of major strategic importance for China and is a fascinating human adventure for Thales."

Jean-Jacques Goubeau,
Beijing, China



"China selected us because we had already proven our ability to deploy a very large-scale air traffic management system in Australia."

Bachu Murthi,
Melbourne, Australia



"We have delivered more than 200 controller positions, and the Eurocat systems we have installed in Beijing, Shanghai and Guangzhou are among the most advanced anywhere in the world."

Zhong Yan,
Melbourne, Australia

Intelligent airspace management

COUNTRIES NEED AIR DEFENCE SYSTEMS THAT CAN PROTECT THEIR VITAL INTERESTS FROM MULTIPLE THREATS, AND AIR TRAFFIC MANAGEMENT SYSTEMS WITH THE HIGHEST LEVELS OF RELIABILITY AND USABILITY.

As airspace surveillance becomes more unified, interoperability has emerged as a key design specification for both civil and military systems.

1/ AIR DEFENCE AND WEAPON SYSTEMS

New threats including UAVs, tactical ballistic missiles and cruise missiles make air defence a key priority for the armed forces today. Thales is one of the few companies in the world with the capabilities to deliver integrated systems that maintain effective airspace surveillance, detect airborne threats and respond to aggression or attack.

For the air defence market, Thales has developed a **comprehensive offering** of air command and control systems, radars and weapon systems to respond to all types of airborne threats.

ThalesRaytheonSystems (TRS), the first-ever transatlantic structural partnership in the defence sector, covers the entire air operations chain. TRS is a first-tier supplier serving international markets for integrated air defence systems. The company's experience includes full prime contractor responsibilities for large-scale programmes, such as the BCS-F (Battle Control System-Fixed) replacement air command and control system for the United States Air Force, the ACCS LOC-1 system (Air Command & Control System Level of Capability 1) for NATO and the Florako airspace management system for Switzerland.

Weapon systems

Thales is also a world leader in land-based and naval air defence systems.

• **Medium-range missiles:** As a member of the Eurosam consortium, the company is contributing to Europe's major cooperative anti-missile defence programmes FSAF (Future Surface-to-Air Family), PAAMS (Principal Anti-Air Missile System) and SAAM (Surface-to-Air Anti-Missile).

The Franco-Italian SAAM air defence system is the naval component of the FSAF programme and is designed primarily to protect the two countries' naval assets. Confirming the success of this programme, operational tests were conducted in 2004 from two of the platforms it will equip: the Charles-de-Gaulle aircraft carrier and the third Sawari 2 frigate.

• **Short-range missiles:** The Crotale NG (new generation) system protects civil and military installations from airborne threats. Equipped with the VT1 hypervelocity missile, it is in service with the French Air Force and Navy and the armed forces of several other countries, including Greece, whose first systems have now been accepted into service.

• **Very short-range missiles:** Starstreak is a flexible close-range weapon system available in four versions — shoulder-launched, light vehicle, armoured vehicle and helicopter — and forms the backbone of the United Kingdom's low-level air defences.

Thales is Europe's leading supplier of **electronic subsystems for missiles and precision-guided munitions**. The company's advanced munitronics technologies meet

Revenues
€1.4 bn

Employees
7,300



Firing of an Aster 30 medium-range air defence missile.

France and the United Kingdom took delivery of five Cobra counterbattery radars in 2004. These radars will provide vital intelligence during multilateral peace-keeping operations and other missions.



requirements of each segment of the market and all types of missiles.

Thales is a world leader in the **Ramjet propulsion technology** adopted for the Meteor programme being conducted by MBDA for several European nations. The Meteor is designed for three European combat aircraft: the Rafale, Eurofighter and JAS-39 Gripen.

Surveillance and detection systems

Thales offers a complete range of surface radars to meet all types of surveillance and security requirements. The company's **surveillance, detection and fire control radars** cover the full spectrum of applications: air defence, ground surveillance, sensitive site surveillance, naval surveillance and air traffic surveillance.

In air defence, Thales has developed the **Master** family of radars to meet general air surveillance needs. The company is now developing new M3R radar technologies (Mobile, Modular, Multi-function Radar), to provide anti-tactical ballistic missile capabilities.

Customer service

Customer support services are expected to account for close to 25% of all revenues in the coming years. Thales was recently awarded a major logistics support contract for **Saudi Arabia's** Crotale and Shahine systems. And in **France**, the company has won two through-life support contracts for the Crotale missile systems deployed by the French Air Force to defend its air bases and provide protection from airborne threats in crisis situations. Thales also helped to maintain airspace security during last year's Athens Olympic Games, providing maintenance and technical support for both civil and defence systems. TRS also offers a range of services and recently won a major contract in the **United States** to supply replacement parts for Firefinder weapon locating radars in service with the US Army. These radars are deployed throughout the world, particularly during out-of-area operations.

Defence

ACCS-LOC1

ThalesRaytheonSystems is a key supplier on the ACCS LOC-1 programme for NATO, which will ensure interoperability between the systems deployed by NATO nations and provide a complete anti-tactical ballistic missile capability.



2/ AIR TRAFFIC MANAGEMENT

With air traffic growing by about 5% per year, Thales is committed to providing a complete range of innovative solutions to guarantee the safety, security and efficiency of the air transport sector.

Surveillance and control centres

More than 260 Thales control centres are currently in service throughout the world. The company's range of products covers all applications, from approach control to en-route control in complex and congested environments. Thales is one of the few in the world with the capability to provide comprehensive solutions for air traffic controllers. The **Eurocat** air traffic management system has become the industry standard, particularly in **Asia**, and was selected by several **African** countries. In **Thailand**, the company is supplying air traffic management, communication and control systems, as well as the surveillance tower and radars for the new airport in Bangkok. Several large-scale control centres supplied by Thales have entered service in recent months in **South Africa, Ireland, Finland and Sweden**. In **China**, the centres installed by Thales as part of the major upgrade of the country's air traffic management system have successfully completed customer acceptance testing.

Nav aids and satellite navigation

A succession of recent contract awards, particularly in **Africa, Saudi Arabia, Egypt, Thailand and China**, have confirmed the company's position as the world's leading supplier of navigational aids (nav aids).

In the market for satellite-based air navigation, Thales is now the European leader in secure applications and solutions for both local and regional systems. With the development of the European Galileo system, which will be interoperable with the existing GPS constellation, Thales will offer global applications for the expanding satellite navigation market. The company recently won a key contract in

Australia to install 57 ground-based GPS positioning stations at 28 sites (ADS-B system).

Airport security

Thales provides systems to monitor ground movements of aircraft and service vehicles, as well as access control and security systems, which have been selected for airports in Germany, Italy, Korea, Poland and other countries.

Galileo

Europe's first satellite navigation system will provide services ranging from personal and vehicle location to motorway toll collection and air navigation. As a partner in the Galileo Industries consortium, Thales brings to the table a wealth of experience and world-class expertise in satellite-based positioning.

The future now



Air Traffic Alliance Towards a single European sky

The European Union launched the Single European Sky initiative to provide Europe with an air transport system capable of handling traffic volumes that are expected to double in the next twenty years by unifying and streamlining existing ATM solutions. Airbus, Thales and EADS set up the Air Traffic Alliance so that the air transport industry can contribute to this initiative by proposing a coherent set of skills. The Alliance's Sesame project brings together forty partners from across the sector to combine their expertise in ground, air and space components to speed the development of new air traffic management solutions.



A new IFF system (Identification Friend or Foe) is being developed for the Starstreak missile in service with the British Army since 1997.

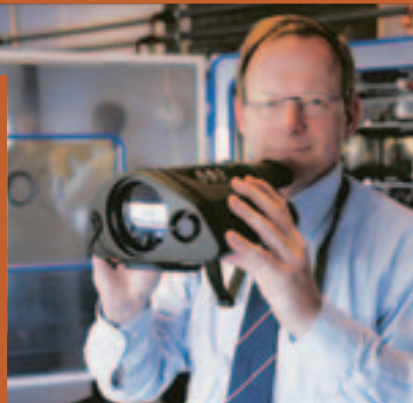
Thales is taking part in soldier modernisation programmes in Germany, Norway, the Netherlands and the United Kingdom.

Direct contact with soldiers in other detachments and my chain of command.



"Working closely with the UK armed forces, we conducted a major company-level field trial involving soldiers equipped with experimental FIST systems. These integrated systems included a radio, computer, GPS, sight and display. This trial identified which functionality the dismounted soldier really needs and is being used to drive the subsequent system development phase."

Paul Wathen,
Bristol, United Kingdom



"Our approach to systems engineering was crucial to our selection by the Dutch authorities. The challenge now is to develop a system that is lightweight and modular, and built to recognised standards to guarantee the interoperability needed for joint forces operations."

Arnoud B. Vernimmen,
Huizen, the Netherlands



"Our experience on FIST in the United Kingdom was critical to our success on the Normans programme in Norway."

Tom Tuhus,
Oslo, Norway

Intelligence at the heart of the battle

INFORMATION MANAGEMENT IS CRUCIAL TO GAINING AND MAINTAINING MILITARY SUPERIORITY, AS THREATS BECOME MORE FLEETING AND MOBILE AND THE ARMED FORCES ARE ENGAGED IN A MORE DIVERSE RANGE OF CONFLICTS. THALES HAS A CRITICAL ROLE TO PLAY AT THE HEART OF THIS NEW DIGITISED BATTLESPACE.

The transformation of air/land combat has driven the development of **C4ISR** systems, which interconnect intelligence, surveillance, and reconnaissance systems with command and control, communications, decision-support and weapons to achieve overall information superiority.

Thales provides its customers with **the overall vision needed to develop "systems of systems"**, guaranteeing that they are interoperable with both legacy and future systems and those fielded by their allies.

Thales is a major player in the joint systems arena, leveraging the new information and communications technologies that have had such a huge impact on military procedures and command chains, particularly for joint operations. **The inauguration of the Group's Battlespace Transformation Centre (BTC) testifies to an innovative approach** to capability planning. It helps Thales to work with its customers to understand and anticipate change based on operational analysis, research into new military doctrines and simulation in synthetic environments.

1/ PRIME CONTRACTOR FOR LAND AND JOINT SYSTEMS

Thales supplies all the types of systems deployed in the theatre of operations and integrates these solutions on all types of platforms (manned vehicles, unmanned ground vehicles and unmanned air vehicles).

Large-scale land systems

Thales is positioned as a prime contractor for the large-scale cooperative land systems that coordinate action by all the assets deployed in the battlespace. France's **BOA cooperative fighting system** initiative is one of the most advanced programmes of this type. Thales is playing a federating role in the defence industry for this major undertaking. Its innovative approach is based on an integrated battlelab for all the government and industry partners involved and the use of the most advanced

simulation facilities available. Through TDA Armements, a joint venture with EADS, Thales acts as prime contractor for **complete weapon systems** and a supplier of munitionics and munitions drawing on advanced pyrotechnics, detonics and electronics technologies. As part of a consortium led by General Dynamics, TDA has been selected to supply the weapon for the Expeditionary Fire Support System (EFSS), an air-transportable fire support system for the US Marine Corps. This contract represents a major success for TDA in the US market. The company will supply its 120RT 120-millimetre rifled towed mortar, which already equips the land forces of twenty-four countries.

Thales has extensive experience in **soldier modernisation programmes** conducted by NATO countries, including the United Kingdom (FIST), Germany (IdZ) and Norway (Normans). Thales has also been selected for the Dutch Digitised Soldier System (D2S2) in the Netherlands.

In **vehicle systems**, the Australian joint venture ADI Ltd has been selected by the Australian Army to produce almost 300 Bushmaster infantry mobility vehicles.

C4ISR solutions

C4ISR systems manage the entire intelligence chain, from data acquisition and processing by ISR systems to transmission of data to command centres, operational

Revenues
€2.4 bn

Employees
15,000

decision-support, command communications and operational control by C4 systems.

Intelligence, surveillance and reconnaissance (ISR) systems are used to acquire and manage data in the upstream phases of the information chain. The interoperability and security of these systems are key enablers of network-centric operations by joint forces.

Thales is a recognised expert in all the technologies needed to acquire, transmit and process imagery data. Its integrated Reco NG-MINDS chain provides a complete image intelligence (IMINT) capability for armed forces, as well as coordination with satellites and other strategic assets. In electronic warfare, Thales has developed the most advanced technologies for the integration and operation of ESM (interception and direction finding) and ECM (jamming, deception, intrusion) payloads, which it is implementing on several current programmes.

ISR systems pass information to **command information systems**, which in turn transmit the data to command centres and the forces in the field.

In France, the group is co-prime contractor with EADS for all the French Army's information and communication systems. This key programme will enable the French Army to gain information and decision superiority, improving operational efficiency by networking all the players in the digitised battlespace. Thales is also to develop and produce the new-generation SICF command information system for land forces, the "smart link" that will transmit orders and operational

situation reports. A central hub for battlespace digitisation, SICF is currently the most advanced system of its type in Europe. And the SIC21 programme, for which Thales is also prime contractor, marks an important step forward in the transition towards network-enabled capabilities for naval forces.

Thales is the **European market leader in infrastructure networks and military satellite communications**, both of which are critical components of the armed forces' power projection capabilities. The Aristote theatre-level backbone network, which ties together all national and NATO tactical networks, has now entered service. The first six sites in the upgraded Matilde network, which provides communications between mainland France and land and naval forces deployed overseas, are now also operational. In addition, Thales has been appointed prime contractor for the ground segment of the Syracuse III programme in partnership with Alcatel, marking a major milestone in this French military satellite communications programme.

In the civil and **homeland security** sector, Thales is a major provider of border surveillance solutions.

2/ EQUIPMENT FOR THE THREE ARMED FORCES

Thales designs and develops all types of communication and optronic equipment for the three armed forces as well as special forces.

Battlespace communications

The company has consolidated its position in **tactical communications for land forces** through several major contracts, particularly in the United States. These include new orders for MBITR tactical radios, taking the total number sold worldwide to 50,000, and selection on Cluster 5 of the JTRS (Joint Tactical Radio System) programme, a key component of future tactical software radio systems. Thales is continuing to develop and deliver PR4G radios and HF tactical radios in Europe and on export: a total of 110,000 PR4Gs are now in operational service worldwide. The new VS4-IP network software version combined with the F@stnet high-speed radio is now in service with the French Army.

In **air and naval communications**, Thales is supplying the German armed forces with Saturn manpack radios, which will provide air, land and naval units with secure ground-to-air and surface-to-air communication capabilities. In Belgium, Thales has been selected to upgrade the communication systems for NATO's sixteen AWACS planes, and has been selected by Saab to equip the Gripen combat aircraft with IFF (Identification Friend or Foe) equipment. Thales has supplied the communication systems for the French Navy's Mistral and Tonnerre force projection and command vessels. The company has also launched a new-generation software-defined radio for naval forces, with the British Royal Navy as the first customer, and is to equip the

Syracuse III



A fully fledged battlefield intranet

With Syracuse III, due to be launched later this year, France will be the first European nation with a military satellite communication system deployed by a fully jam-resistant satellite. The system will provide communications between France and remote theatres of operations and constitute a fully fledged battlefield intranet for the armed forces. This programme is a strong endorsement of Thales' role as prime contractor on large-scale military communication systems for land forces.

Royal Norwegian Navy's Skjold-class fast patrol boats with datalink equipment.

Defence optronics

Thales has been selected to supply France's three armed forces with over 600 Sophie new-generation infrared cameras. With more than 6,000 units sold in 45 countries, Sophie is widely used for surveillance and peacekeeping missions. In the United Kingdom, Alvis Vickers Ltd has chosen Thales to supply new-generation day/night driving periscopes for its Future Command and Liaison Vehicle. The Battle Group Thermal Imaging (BGTI) system has also been accepted into service with the British Army, following a particularly rigorous test campaign.

The company ranks among the world's top few suppliers of **airborne optronic systems**: its equipment has been selected for the Rafale and Eurofighter Typhoon combat aircraft in Europe, and Thales is also a partner on the American F-15 programme. Integration of Thales communication, avionics and optronic equipment on the Sukhoi 30 MKM has also begun, making the Russian-built aircraft fully interoperable with Western air forces. EADS, Diehl and Thales have stepped up their partnership in optronic countermeasures for new types of threats, developing a demonstrator for the Flash system that will enhance the defensive capabilities of civil and military transport aircraft.

In **naval optronics**, Thales is the European leader in optronic periscopes and masts for submarines, and its infrared panoramic surveillance systems and fire control systems are in service in the United Kingdom, the United States and with other navies around the world.

3/ CIVIL SOLUTIONS

Thales is **the world's leading supplier of short-wave, medium-wave and long-wave radio broadcasting equipment**. The company supplied transmitters to Télédiffusion de France (TDF) for its digital terrestrial television service, which has been operational since March 2005. Thales is also prime contractor for France Telecom's MaLigne TV video-over-ADSL project, playing a key role as system architect and integrator.

Thales and Alcatel have teamed to develop **highly secure telephony-over-IP solutions for enterprise markets**, leveraging the Mistral technology selected to secure the French banking network's IP communication infrastructure.

4/ SERVICES

Thales' online services and e-business portal offers Land and Joint Systems customers a single point of access to information about the company's portfolio of products and services. A new site management offering is also available for facilities using Thales systems. This comprehensive set of services guarantees operational availability not only of the systems themselves, but also of each site as a whole. Thales has already been awarded a major contract to develop a site management solution of this kind for the French Army.

The future now



Land vehicles

A new observation capability

The company's capabilities in the land vehicles sector includes design, installation, systems integration and even vehicle production. Thales systems have been integrated on more than 25,000 land vehicles of 150 different types. Thales is co-prime contractor for the French Army's VBL Source intelligence and command vehicle programme, providing an innovative observation capability based on a simple and easy-to-integrate architecture. In the United Kingdom, the BGTI thermal imaging system will equip a total of more than 600 Warrior armoured infantry fighting vehicles and Scimitar reconnaissance vehicles.



As part of a consortium led by General Dynamics, TDA has been selected to supply the weapon for the Expeditionary Fire Support System (EFSS), an air-transportable fire support system for the US Marine Corps.



Thales has been selected to upgrade the communication systems for NATO's sixteen AWACS planes.

Thales is developing one of the world's most advanced sonars for the British Royal Navy.

Access to accurate
underwater imagery
in real time.



"The 2087 is one of the world's most advanced sonars. It's a new generation of low-frequency sonar tailored to the Royal Navy's needs."

Paul Gosling,
Stockport, United Kingdom



"A variant of the 2087 sonar will also equip the FREMM Franco-Italian multimission frigate – a fine example of cross-programme synergy."

Michel Hovaere,
Sophia-Antipolis, France



"We are extremely proud to be working on this vital Royal Navy programme. The incremental delivery of equipment into service will provide a step function in capability to combat increasingly stealthy submarines, especially in the littoral environment."

Kevin Whitfield,
Stockport, United Kingdom

Intelligent systems for naval platforms

THE FOCUS OF NAVAL MISSIONS IS SHIFTING FROM BLUE-WATER COMBAT TO FORCE PROJECTION, DEPLOYMENT AND SUPPORT IN LITTORAL WATERS, WITH ADDED EMPHASIS ON AREA SURVEILLANCE.

The naval defence market is growing as programmes are launched to build new platforms for new missions and as demand for fleet logistic support expands. The value of shipboard electronic systems is also rising as a proportion of total costs, representing around 30% of the cost of a submarine, 40-45% for a frigate and as much as 60% for a patrol boat.

Changing patterns of demand are also transforming the way the contractor community operates, as electronic systems integrators increasingly share new programme management responsibilities with major shipbuilders. As a **world leader in integrated naval programmes** and associated combat systems, Thales has a central role to play in these developments.

A number of key strategic decisions have been made in Europe. The choice of conventional propulsion for the French Navy's PA2 aircraft carrier, for instance, paves the way for cooperation between the French PA2 and British CVF programmes. Thales is in the unique position of playing a role on carrier programmes on both sides of the Channel.

Similarly, the agreement signed by French and Italian authorities concerning the FREMM multimission frigate programme ushers in a new era in naval cooperation between France and Italy, already partners on the Horizon programme.

Thales' naval offering is organised around **four strategic capabilities**: warship prime contracting, above-water systems, underwater systems and naval services.

1/ NAVAL PRIME CONTRACTING

Thales is one of the only companies in the world with proven expertise in warship prime contracting, system and equipment integration, programme management and the associated logistic support. With core competencies in combat management systems, radars, missile systems and communications technologies,

Thales has a clear role to play in battlespace digitisation programmes and new networking developments for joint and allied forces, including their naval components.

The company assumes naval prime contracting and systems integration roles either on its own or in partnership with other prime contractors, particularly the major French shipbuilder DCN. **Armaris** is a joint subsidiary of Thales and DCN combining the partners' commercial strengths and expertise in warship prime contracting for international sales and cooperation programmes.

In 2004, Thales and DCN reached a teaming agreement for the **PA2 programme** under which a joint venture will be formed to act as overall prime contractor. DCN will have a 65% interest in the company and Thales the remaining 35% with the management team under joint control.

Thales has continued its work on the **Sawari 2** programme for Saudi Arabia. Following successful sea trials, the third and last multirole frigate, complete with its Aster medium-range anti-air missiles, was handed over to the customer.

Revenues
€2 bn

Employees
6,100



Sea trials have begun with the MINREM strategic intelligence vessel, for which Thales is prime contractor.



Test firing by the De Zeven Provinciën, the first of the Royal Netherlands Navy's new LCF class, for which Thales is supplying advanced systems built around the APAR radar.

South Africa has also taken delivery of all four corvettes ordered under the SAN-PC programme. The first vessel has begun sea trials and work is proceeding on the integration of the combat systems of the other three. Other major cooperation programmes are expected to be launched in Europe in the short to medium term. In particular, the prime contract for the **FREMM multimission frigate programme** should be awarded in 2005 and Germany is expected to launch the F125 programme to build four new-generation anti-air frigates in 2006.

2/ ABOVE-WATER SYSTEMS AND EQUIPMENT

Thales surface vessel combat systems are designed for the digitised battlespace. Naval warfare specialists in France, the Netherlands and the UK are contributing to the **Battlespace Transformation Centre**, set up by Thales to integrate and coordinate all its network-centric warfare developments.

In naval sensors, Thales is focusing its efforts on the Smart-S Mk 2 E/F-band volume search radar, which has been redesigned for littoral environments and was recently sold to Denmark; the APAR multifunction active phased-array radar; the new Herakles multifunction radar developed largely for the FREMM frigate programme; and the new-generation MRR (Multi-Role Radar) 3D NG medium-range radar for applications including missile system fire control.

Thales also develops equipment and systems for naval aviation and joint forces, as well as highly competitive naval communication and electronic warfare systems.

In **Korea**, Thales won a contract to supply Goalkeeper close-in weapon system shipsets for the KDX-III frigate programme. The company has also been selected to supply the combat system, radars and sonars for a light corvette programme in **Indonesia**.

In **Greece**, Thales has started to upgrade the Hellenic Navy's Type S frigates and four fast attack craft, and delivered radars and fire control systems for a further two fast attack craft.

Mine warfare

UUVs ready for deployment

First-generation Unmanned Underwater Vehicles are already available. They are typically carried to the target area by boat or helicopter, launched, remotely controlled during the mission, and then recovered. Mission data is then analysed either on board the host vessel or by a shore centre.



3/ UNDERWATER SYSTEMS AND EQUIPMENT

Demand remains strong for conventional underwater systems and equipment, which are required on most of the naval projects and programmes mentioned here, and on the Barracuda nuclear-powered submarine programme for the French Navy and the Scorpene conventional submarines sold to international customers by Armaris.

In **mine warfare**, sonars and mine countermeasure systems continue to make growing use of robotics. First-generation **unmanned underwater vehicles** are already available.

Thales offers a full range of **sonars** for the underwater battlespace, and has supplied periscopes to the Royal Navy and 13 other naval forces. Non-penetrating optronic masts are now beginning to replace submarine periscopes, and Thales has developed and now produces the visual system for the UK's new Astute class submarines. This system features a suite of high-resolution sensors and advanced imaging modes.

In **France**, the Sycobs new-generation integrated sonar system has been selected for the Barracuda programme. Thales is also developing a version of the Flash dipping sonar for the **US Navy** in partnership with Raytheon. In the **UK**, a large number of sonars have been delivered in recent months for both surface vessels and submarines.

4/ NAVAL SERVICES

Initially focused on the provision of maintenance services for naval electronic equipment, contractor support now includes prime contracting for support programmes and comprehensive through-life support services. The logistic information and management system developed for the French Navy (Sigle) is now available to international customers under the name Oasis. The system has been deployed aboard 80 French vessels to date. Thales has been awarded several large-scale logistic support contracts, including one involving full-service support for the sonars deployed by the Royal Navy.

The future now



FREMM

A flagship programme for European industry

In October 2004, France and Italy signed a Memorandum of Understanding on the biggest naval programme ever undertaken in Europe. Under the agreement, twenty-seven FREMM multimission frigates – seventeen for France and ten for Italy – are due to be delivered between 2010 and 2018. Armaris, a joint subsidiary of Thales and DCN, is the prime contractor for the French ships.



Following the UK Ministry of Defence's decision to form an alliance with Thales, BAE Systems and KBR to build the future CVF aircraft carriers, Thales was awarded several study contracts, pending announcement of the main design and construction phases of this programme.

Smart image analysis technology from Thales: enhancing security for crowds of 2.5 million people.

Real-time monitoring of crowd movements to respond immediately if needed.



"Over 2.5 million people made the pilgrimage to Mecca this year and we can say that our system contributed to there being no serious incidents. It's a text-book example of how high technology improves safety and security at major events."

André Mamier,
Riyadh, Saudi Arabia



"We developed and deployed a system that measures crowd density and movements using 32 video cameras and a real-time acquisition system. The information was analysed in the control room and messages were immediately broadcast to the crowd."

Xavier Duthu,
Meudon-la-Fôret, France



"It was a team effort with the local authorities, not least because the messages had to be prepared in eleven different languages. They were displayed on seven hundred TV screens and five giant screens - which could be read over a kilometre away."

Waheed Akhtar,
Riyadh, Saudi Arabia

Better intelligence for higher security

EXTENSIVE EXPERIENCE IN THE DEFENCE SECTOR BRINGS THALES ADDED CREDIBILITY AS A SPECIALISED PROVIDER OF SECURITY SOLUTIONS FOR CIVIL ADMINISTRATIONS, GOVERNMENTS AND MAJOR CORPORATIONS.

In security markets, Thales leverages advanced technologies and risk management methodologies very similar to those required on defence programmes.

The company integrates security solutions for critical applications **and supplies a range of security products**, including cryptographic devices, payment terminals and GPS receivers. Its security solutions rely on **three core competencies**:

- security risk management consulting
- electronic systems for physical security
- IT security.

Thales provides security solutions for **four main categories of customers**: transport and energy operators, banking and financial institutions, major corporations, and governments. For governments, the company has developed a complete, structured range of products and services known as **Thales SHIELD™** to enhance territorial integrity and protect citizens from all types of risks, including terrorist attacks.

1/ SECURITY SYSTEMS

Thales serves security markets on various levels, ranging from security consulting, architecture definition and systems integration to the provision of turnkey solutions including the design, installation, operation and maintenance of complete systems.

For civil defence and security forces, police forces and fire brigades, Thales provides operations centres, crisis management and NRBC (Nuclear Radiological Biological Chemical) threat detection systems, such as those to be supplied to the French government.

The company also develops secure systems for issuing ID cards, passports and driving licences. Thales systems are used to issue permanent resident cards in the United States, driving licences in South Africa

and Poland, and ID cards under a pilot programme in China. Thales also offers comprehensive security solutions for facilities, event venues, sensitive infrastructures (transport, energy, etc.) and military bases.

Thales solutions have been adopted for various **secure transaction systems for the banking and financial community, and for a number of e-government initiatives**.

Recent successes include a contract to equip Paris buses with a video surveillance system, installation of surface vehicle tracking systems for the city's airports, and security solutions for the Australian headquarters of the Woolworth's retail group, the headquarters of an international bank, and the French Ministry of the Economy. Thales is also taking part in Lille's urban security project, the largest project of its kind ever implemented in France, protecting over two dozen sensitive sites in the metropolitan area. Last but not least, for the pilgrimage to Mecca last year – which drew crowds of over 2.5 million people – Thales set up an innovative integrated crisis management system to optimise crowd control.

Revenues
€1.1 bn

Employees
6,000



Thales is installing a new security system to supervise storage and transport zones of the 769 km southern European pipeline, which transports over 23 million cubic metres of oil each year from Fos-sur-Mer on France's Mediterranean coast to Karlsruhe in Germany.

Transport



Thales secures the Guangzhou metro

Thales and its partner HollySys are supplying a secure control centre for line 4 of the metro serving the Chinese city of Guangzhou. The centre will monitor all the line's electronic systems and provide high-level protection from hacker attacks. The project further strengthens Thales' position on the Chinese security market and is part of a wider plan to modernise the country's transport networks. The 10 million inhabitants of the city of Guangzhou, for example, currently have only two metro lines, but construction has already begun on lines 3 and 4, and four additional lines are in the planning stages.

2/ TRANSPORT & ENERGY

Thales develops a complete range of fare collection and ticketing, toll collection, supervision and control, fleet management and telematics systems. The company also provides full maintenance and life cycle support for its equipment and systems.

In **the Netherlands**, an integrated fare collection system based on contactless smart card technology is currently being deployed for all forms of public transport throughout the country. Thales will also be providing ticketing systems for the **Taipei and Caracas** metropolitan transport networks. Thales customers also include major energy companies such as EDF-GDF in France, Gazprom in Russia and SPSE, which has chosen Thales to renovate the supervision system for the oil pipeline running from the Mediterranean coast to Karlsruhe in Germany.

3/ e-SECURITY

Thales provides a complete line of **data encryption devices** for civil and defence applications and a competitive offering of high-level authentication systems. **The company's solutions protect most of the world's retail card transactions**, both for magnetic strip and smart card technologies, and are in strong demand for **e-government transactions**. Thales e-security solutions have been selected by several of Asia's major banks and stock exchanges, and the company has been selected by France's bank card consortium to secure its entire national network. More recently, Thales entered into a partnership with Alcatel to integrate Mistral security technology in Alcatel's Omni PCX IP-based office telephone solutions.

4/ e-TRANSACTIONS

Thales offers a **complete line of payment terminals** and uses its own electronic payment security software to develop dedicated solutions for specific customers' requirements. As a result, the company is able to provide point-of-sale card-payment terminals for small retailers and large retail chains alike, as well as highly secure payment terminals and keyboards for cashpoint machines. Thales secures the entire credit card transaction chain, from cardholder to merchant to bank.

In France, Thales and its partner GTI won a contract in 2004 to equip Relais H outlets in hospitals. In Spain, the company has delivered over 110,000 payment terminals and secure keyboards to Sistema 4B, a major credit card transaction operator. In the integrated payment field, Thales is also supplying systems to Aldi, Lidl, Total, Shell and DHL.

5/ COMPONENTS

Thales is **the world's leading producer of professional electron tubes and devices**, which are used to intensify various types of signals and have applications in satellite communications, medical imaging (X-ray detectors) and non-destructive testing.

Thales has taken part in missions to explore Mars (Mars Express) and Saturn (Cassini) and is playing a role in the development of the satellite communications industry in Asia.

The company is closely involved in efforts to develop satellite broadband technology, and was recently awarded the first contracts to equip satellites for direct high-definition television service in the United States. In Europe, Thales confirmed its market leadership in components for terrestrial broadband networks.

Through UMS, a joint venture with EADS, Thales also produces specific gallium arsenide components, which are used primarily in the automotive, telecommunications, defence and space sectors.

6/ NAVIGATION

Thales is **one of the world leaders in GPS positioning, navigation and guidance products** for consumer - through the Magellan® brand - and professional markets. The company recently introduced a range of affordable, high-performance hand-held products (Magellan eXplorist), as well as MobileMapper, a GIS (Geographical Information System) data collection system for energy, transport, civil security and city planning professionals.

The future now



Non-destructive testing Combining components

Combining expertise in sensors and X-ray technology, Thales has developed a range of products that instantly turn X-rays into high-resolution images for non-destructive testing. Applications include quality control on products ranging from microelectronic circuits to baby food. The products can also be used to inspect the insides of containers at ports and airports - an application that is expected to expand dramatically, with less than 2% of all containers arriving in US currently undergoing inspection.

Thales supplies 55 models of customised payment terminals to more than 50 retail banks in Spain.



The MobileMapper geographical information system.

In Germany, Thales is training pilots to fly the multimission NH90 military helicopter under the first PFI programme (Private Finance Initiative) launched by the German government.

Trained for future missions.



"As PFI contracts become more common in Europe, our UK experience in this area gives us a clear competitive advantage."

Justin Barratt,
Crawley, United Kingdom



"This is the first PFI programme in Germany. The experience and support of our colleagues in France and the UK tipped the balance in our favour."

Harald Goertz,
Koblenz, Germany



"Expanding our services capability is a strategic priority. Outsourcing non-core services is already standard practice in commercial markets, and our defence customers are moving in the same direction."

Jacques Rabain,
Paris, France

The intelligence to provide high value-added services

WITH MORE MAJOR CORPORATIONS AND ADMINISTRATIONS OUTSOURCING BUSINESS PROCESSES AND FUNCTIONS, THALES IS LEVERAGING MILITARY AND AEROSPACE EXPERIENCE TO EXPAND ITS CAPABILITIES AND CUSTOMER BASE.

Thales has progressively expanded its services business, which is conducted by all divisions and currently accounts for roughly 25% of consolidated revenues. The Services division alone accounts for about half of this figure.

Thales' **stronger focus on services** is a response to the evolving demands of its traditional customers over the past decade. Fighting to optimise costs, public administrations, the armed forces and major private and institutional customers are refocusing on their core businesses and outsourcing non-strategic functions. Military pilot training is a prime example. Until the mid-1990s, the armed forces provided their own training, with contractors supplying the flight simulators. Now contractors are supplying the training capability and the armed forces pay on a per-hour basis. In a thirty-year contract with the United Kingdom signed in 2003, Thales is supplying simulator-based training for all RAF Tornado GR4 pilots.

Understanding the market involves close contact with customers and the ability to combine technical know-how with experience of the customer's core processes. This is why the Services division is organised around the four main business areas of its **customers**: defence and aerospace, civil administration, enterprise and finance.

Thales expertise covers **four major areas**:

- training and simulation
- consulting and engineering
- IT integration and outsourcing
- facility management.

The international dimension of the Services division is a key asset. With operations in a dozen countries, the division generates less than half its revenues in France. Building on this international service culture, Thales is in a strong position to support its major customers on a multinational basis.

Thales has the capability to provide the entire service package, from design to commissioning, and offer its customers comprehensive prime contracting with responsibility for every link in the logistics chain. Similar approaches are applied to property and IT infrastructure management, simulator-based training and business process outsourcing.

In the United Kingdom, Thales has overall responsibility for maintaining telecommunications equipment for

Revenues
€1.1 bn

Employees
11,000

Network Rail, the company that owns the United Kingdom's rail infrastructures. For this customer, Thales operates call centres and manages spare parts and repairs, with contractual commitments as to the speed and quality of the services provided. Thales is an integral part of the Network Rail organisation, a partner with a direct interest in its customer's results.



Equipment and systems maintenance are part of the group's services offer.

Working Links



A national challenge

In 2004, Thales was awarded a five-year outsourcing contract to overhaul the entire IT infrastructure of Working Links, a British public/private partnership that helps the long-term unemployed find jobs. The organisation employs 800 people at 50 sites throughout the United Kingdom – a challenge for Thales, and a chance to show its competitiveness in the UK public sector.

1/ FINANCE

The company's **IT consulting and systems integration offering** is especially relevant to the banking and financial services sector, whose regulatory environment and operational needs are becoming increasingly complex. To provide a comprehensive range of solutions, Thales has established partnerships with leading technology suppliers including Misys, Temenos, Sungard and Finattec.

IT consulting services for the banking and financial community are focused on assisting customers in meeting their legal and regulatory obligations. Thales' systems integration services include integration of standard or bespoke software solutions in existing environments, as well as interface design and development. Thales brings its customers experience, specialised technical resources and proven IT project management capabilities.

The company also provides a range of IT outsourcing solutions through its own European network of data centres, combined with the core process expertise required to operate and maintain business application environments. Comprehensive business continuity and disaster recovery solutions are also available.

The Saudi Arabian bank Al Bilad selected Thales in 2004 to develop its new information system – a complex information system integration project that will be managed by a multinational team of French, British and Spanish engineers.

2/ INDUSTRY

Thales provides **outsourcing services** that meet both infrastructure- and application-related requirements. The full range of services also covers more specialised services such as system engineering, product life-cycle management (PLM) and supply chain management (SCM).

The Brazilian aircraft manufacturer Embraer selected Thales to manage its repair cycle logistics in Europe, the Middle East and Africa: collecting the part from the airline and sending it to be repaired by Embraer before returning it to inventory or the airline. Under this contract, Thales is providing a comprehensive package of services, including consulting, IT and logistics services, and coordination of these different capabilities.

Eurostar has chosen Thales for a ten-year contract to develop and operate a fare optimisation system which updates fares in real time as part of a pricing and revenue optimisation effort by the high-speed train service.

3/ CIVIL ADMINISTRATION

Civil administrations are undergoing a **sea change**, simplifying relations with citizens through better use of new technologies and improved efficiency. Thales helps government agencies modernise and streamline their

information systems, outsource certain operations and develop e-government projects. The company has managed several projects for the French tax administration, including the "tax portal" project, and is also managing maintenance for the telecommunications networks of the British rail system.

Thales also created an Internet portal for the Kent police in 2004 to support non-emergency crime reporting by members of the public. With this innovative application, the crime is reported instantly, the report is filed in a central repository, and the insurance company is informed immediately. The system is the first of its kind in the United Kingdom.

4/ DEFENCE AND AEROSPACE

Thales provides **simulation and training services** for military and civil aircraft crews as well as civil and military land vehicle drivers. **More than 40 commercial airlines** rely on Thales simulation-based training systems.

The German government approved a major PFI (Private Finance Initiative) contract in 2004 to provide training for its **NH90 multimission military helicopters**. The NH90 programme is the largest helicopter programme ever launched in Europe. The training centres will be operated by the Helicopter Flight Training Services consortium (HFTS), of which Thales is a member, to provide turnkey training services for NH90 crews on an hourly fee-paying basis.

In early 2005, the AirTanker consortium was announced as preferred bidder for the **Future Strategic Tanker Aircraft** (FSTA) programme. Under this 27-year PFI contract with the British MoD, Thales will supply strategic air refuelling and transport services to the Royal Air Force. A shareholder and founding member of AirTanker, Thales will also supply critical equipment and technology as well as services, primarily training.

More recently, the European arms purchasing organisation OCCAR, whose members include France, Germany, Italy and the UK, awarded Thales a contract to supply complete simulation facilities for training aircrews of the Franco-German **Tiger combat helicopter**.

The future now



Business Process Outsourcing Intelligence on board British trains

Business Process Outsourcing involves delegating responsibility for an entire business process or function to a service provider. The British rail system awarded Thales a contract to maintain and operate all of the network and telecommunications equipment on its trains under this arrangement. Eight hundred people are under Thales management on this project.



The company's services include IT systems integration and operation.



Thales will train RAF pilots on the British FSTA aircraft refuelling programme.

33 Shared
values



34 Shared
cultures



36 Shared
knowledge



THE THALES WAY

SHARING IS THE THALES WAY – SHARING RESPONSIBILITIES ACCORDING TO A CLEAR SET OF PRINCIPLES, SHARING CULTURES TO RESPECT THE IDENTITIES, CULTURAL BACKGROUNDS AND EXPERTISE OF 60,000 EMPLOYEES, SHARING KNOWLEDGE TO STRENGTHEN THE COMPANY'S TECHNOLOGY LEADERSHIP AND DELIVER BEST PRACTICE SOLUTIONS TO CUSTOMERS AROUND THE WORLD.

Shared values

A SET OF CORE VALUES SHARED BY 60,000 EMPLOYEES AROUND THE WORLD – FOCUSING ON CUSTOMERS, DEVELOPING PEOPLE, INNOVATION, TEAMWORK AND KNOWLEDGE SHARING – BINDS THALES UNITS TOGETHER INTO A POWERFUL, RESPONSIVE FORCE.

With operations in close to fifty countries, respect for local identities and cultures is crucial. Thales embraces this **cultural diversity** as a source of enrichment and creativity. Global presence and the high-level expertise of the Thales workforce dictate a human resources management policy that focuses on professional development and promotion of both team performance and individual achievement.

The company's objective is **to attract and retain the best talents**. To achieve it, Thales is engaged in an ongoing international recruitment campaign and maintains close ties with leading engineering and business schools. Thales understands that empowerment and recognition, transparency and direct dialogue are critical to staff retention, and offers real potential for both professional and geographic **mobility** within the group.

Teamwork

There is enormous scope for synergy and teamwork across the company's businesses, which rely on many of the same skill sets and technologies. Teamwork and team spirit drive innovation, generating efficiency and building value for customers. Teamwork with industry partners is just as important. Thales operates as **a global knowledge network**, sharing expertise and experience in full compliance with customer confidentiality and security commitments.

Thales University is committed to the professional development of Thales employees and building a shared corporate culture based on Thales' core values. Eighty percent of Thales University teaching staff are experts and managers from the company itself.

Corporate social responsibility

As **a responsible corporate citizen** in a global society and a major player in international markets with ever-stricter ground rules, Thales earns the continuing confidence of its customers, employees and shareholders through irreproachable business practices. Thales

ensures rigorous compliance with national legislation in all its countries of operation, and with the rules and standards governing international trade.

The company adheres to the **United Nations Global Compact**, which rallies companies, United Nations agencies, professional organisations and civil society around ten universal principles relating to human rights, labour standards, protection of the environment and the fight against corruption.

All Thales employees formally agree to comply with **a strict code of ethics**, a comprehensive statement of employee accountability with respect to partners, customers, suppliers, co-workers, shareholders, financial markets and the environment.

Thales is committed to overcoming discrimination in the workplace and has clearly stated this commitment in its code of ethics. A company-wide agreement on gender equality is applicable in all Thales facilities in France, and a programme was launched over ten years ago to promote the employment of disabled people, particularly by developing new tools and solutions based on Thales technologies.



Thales employees Karl Reed and Patricia Barbet accompanied Denis Ranque to hand over a cheque to Jacques Hintzy, Chairman of the Unicef national committee in France (right), marking the company's solidarity with the victims of the Asian tsunami. Thousands of employees made donations to the Thales relief operation, which collected a total of 360,000 euros for Unicef.

Shared cultures

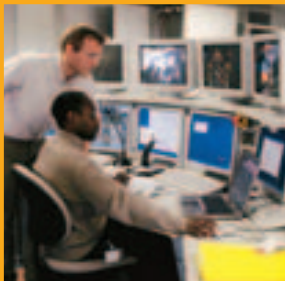
THE INTERNATIONAL DIMENSION OF THALES IS ONE OF ITS MAJOR STRENGTHS. ALL OVER THE WORLD, IN AUSTRALIA, GERMANY, KOREA, THE NETHERLANDS, THE UNITED KINGDOM AND THE UNITED STATES, THALES IS RECOGNISED AS A FULLY FLEDGED LOCAL INDUSTRY PLAYER. THE SHEER NUMBER OF COUNTRIES IN WHICH THALES IS LEADING OR PLAYING A KEY ROLE ON MAJOR PROGRAMMES TESTIFIES TO THE SUCCESS OF THE COMPANY'S MULTIDOMESTIC STRATEGY.

In defence markets, global player status can only be achieved through a local industrial presence in the client country. These markets are politically sensitive and closely tied in with national security, and it is clearly easier to win contracts if they provide a country with domestic benefits in terms of employment and technological expertise. This is the premise underlying the multidomestic strategy that

Thales has pursued for the last fifteen years. In practice, this strategy can involve forging partnerships with local contractors, acquiring a local company, or founding a new company or joint venture in the country concerned.

In each case, Thales promotes local management and staff, contributing to the country's economical and industrial development, and positioning the company as **a local player** with the ability to listen closely to its customers to understand and better anticipate their needs.

For Thales, the benefits of this multidomestic strategy are clear: easier access to markets, broader funding for R&D programmes, new openings for the company's expertise, particularly in prime contracting and services, and an involvement in numerous national programmes.



Thales contributes to the economical and industrial development of the countries where it is present.



Lever of growth

In addition to increasing order intake and generating a diversified base of recurrent business, Thales' international dimension is a major lever of growth and offers significant potential for exports.

The company's international marketing and sales efforts are coordinated by **a global network of delegations and experts**. This organisation enables Thales to establish and maintain long-term relationships with customers, political decision-makers and local industries. It is part of the Thales commitment not only to listen attentively to customers around the world but also to support local industrial development, transfers of technology and programme financing solutions. Another of the key responsibilities of this network is to ensure strict compliance with legislation, ethical business practices and end-user control procedures for exports of sensitive equipment and systems.

UNITED KINGDOM



2004 revenues: 1.3 billion euros
10,000 employees

The United Kingdom, the company's second-largest country of operation, is both an industrial base and a research hub for Thales, with a total of five R&D centres. Thales is the country's second-largest defence contractor and has won a number of high-profile contracts including the CVF aircraft carrier programme with BAE Systems and KBR. The company has also been selected on innovative programmes including the FIST future soldier system, the Watchkeeper tactical UAVs, and the Royal Air Force's air refuelling programme as part of the AirTanker consortium. Thales provides training for all RAF pilots, security solutions for the London Underground, the Port of London and Royal Navy bases, and secure communications for the Palace of Westminster.

AUSTRALIA



2004 revenues: 500 million euros
3,200 employees

ADI is Australia's leading defence contractor. Through this joint venture with the Transfield group, Thales has an involvement in all the country's major aerospace and defence programmes, including pilot training for the Royal Australian Air Force and Qantas, Bushmaster armoured vehicles, the FFG frigate upgrade and mine countermeasures systems. The company is also taking part in the Tiger and NH90 helicopter programmes with Eurocopter. After successfully deploying Australia's new air traffic management programme, Thales was also selected by China to equip three of its busiest en-route control centres and provide coverage for the east of the country in preparation for the 2008 Olympics.

KOREA



2004 revenues: 225 million euros
1,000 employees

Samsung Thales is Asia's first-ever joint venture in the defence sector and has doubled its sales in the last four years. The company produces short-range air defence missiles under the K-SAM programme and is supplying the combat system for the Republic of Korea Navy's 13,000-ton amphibious command and control vessel under the LPX programme. The company has won several awards from the defence ministry for the quality of its R&D and other defence industry achievements.

NETHERLANDS



2004 revenues: 240 million euros
2,400 employees

Thales has been a local industry player in the Netherlands since 1990 and has made the Dutch operation one of its main centres of excellence for naval markets. Equipment and systems developed in the Netherlands are installed on all types of surface vessels in service with more than sixty navies worldwide. Thales is also taking part in the development and integration of a single nationwide fare collection system for all modes of public transport – one of the most advanced systems of its kind anywhere in the world.

UNITED STATES



2004 revenues: 800 million euros
2,000 employees

Thales has had a continuous presence in the United States for 35 years. The company is one of the partners in the defence sector's first ever-transatlantic joint venture, ThalesRaytheonSystems, the world leader in air command and control systems. Although US defence markets are considered relatively inaccessible to foreign companies, Thales has won a number of important military contracts in the United States, including the MBITR radio contracts for US special forces. Thales is also a member of the consortium that has been selected for Cluster 5 of the Joint Tactical Radio System (JTRS) programme to supply software-defined radios for UAVs and other unmanned vehicles. In aerospace markets, the Thales subsidiary in Irvine, California is now one of the world leaders in the in-flight entertainment market. Thales in the US is also a leading supplier of GPS navigation products.

GERMANY



2004 revenues: 550 million euros
3,500 employees

Thales has significantly expanded its presence in Germany over recent years and enjoys solid positions in communication systems, air defence, naval systems, simulation and other markets. The company is a key partner of the German government on a number of cooperative European programmes including the A400M transport plane and NH90 and Tiger helicopters. One of its most recent successes is the fourteen-year contract awarded through the HFTS consortium to provide training for NH90 helicopter pilots, the first PFI (Private Finance Initiative) programme in Germany. Thales also provides card payment systems and recently supplied the German post office with 2,000 portable payment terminals for its parcel delivery service.

Shared knowledge

IN AN INCREASINGLY COMPETITIVE ENVIRONMENT, THE COMPANY'S SUCCESS HINGES ON EXPERTISE IN CRITICAL TECHNOLOGIES AND THE ABILITY TO INCORPORATE THE RESULTS OF ITS RESEARCH INTO ITS PRODUCTS AND SYSTEMS.

Technological innovation is a recurring theme in all Thales businesses. Some **20,000 researchers** are involved in research and development at more than fifty sites in a dozen countries, sharing information and best practice as an integrated network of qualified R&D engineers.

Thales' **current R&D efforts** are focused on new design tools and methods, secure software and intelligence technologies (data fusion, knowledge bases, image processing, etc.). Another basic priority is to secure sources of high-performance electronic components and critical technologies for the long term.

A matchless research and technology capability

Research investments are focused on future-oriented projects in areas including network-centric warfare, civil and military surveillance systems and new-generation avionics. In Europe, 600 researchers are working in a number of **areas considered critical**

for personal and collective security: identification, biometrics, IP security, image and data processing, data mining and secure networks. This intellectual task force has no equivalent in Europe and is at the disposal of Thales' civil and defence customers.

To support its equipment and systems throughout their life cycles, Thales needs to guarantee secure access to critical technologies and components by developing certain semiconductor, optronics and encryption technologies itself.

But above all, in a reflection of the company's core value of knowledge sharing, Thales conducts its research as part of a **collaborative effort both inside and outside the group**. Each Thales business contributes to this collective effort, with most R&D conducted under cross-cutting projects with results that benefit all businesses. Technological cooperation has become critical to competitiveness, and Thales has long adopted the same collaborative approach to research with **outside partners**. Research partnerships with leading engineering schools, universities and research institutes, and

Thales R&D in figures

- **€1.9 bn**, including 400 million euros in company-funded R&D
- **18%** of revenues
- **20,000** researchers
- **250** inventions each year on average
- **12,000** patents
- **30** cooperation agreements with universities and public research laboratories in Europe, the United States and Asia

III-V semiconductors

The largest industrial research laboratory in Europe

Thales and Alcatel have formed a joint research laboratory dedicated to semiconductor technologies. This new facility, the largest of its kind in Europe, will develop the two companies' capabilities in electro-optical and microelectronic components based on III-V semiconducting materials. These materials generate the high power levels needed in transmission systems for telecommunications, defence, security and space markets.

with technology providers and certain customers, are one of the pillars of company policy on R&D.

Most aerospace and defence programmes are now **cooperative undertakings**, not only with other systems integrators but also with a large number of innovative companies that possess highly specialised know-how, some of them working in areas not directly related to Thales' businesses. This is the case with software, for example, and with most of the dual technologies that Thales exploits. The company works with specialised technology partners within **a dynamic "ecosystem" of innovative players**, sometimes even investing in start-ups and supporting their growth and development. Supporting this tradition, Thales recently set up a 100 million euro investment fund with ACE Management to support innovation in security solutions by small and medium-sized enterprises.

Interaction with the global research community

Thales is **an active member of the international scientific and technological community**. The company has close ties with major research institutes, in particular with CNRS, INRIA, CEA, ONERA and the École Polytechnique in France; with Qinetiq, the Universities of Cambridge and Surrey, and Imperial College London in the United Kingdom; with TNO and the Universities of Delft and Amsterdam in the Netherlands; and with several universities in Singapore. The company has also formed partnerships with a number of research institutes in Australia, Germany and North America.

Thales is also **an active contributor to a wide range of European military and civil programmes** including Euclid and Eurofinder, the European 6th and 7th Framework Programmes for R&D, and Eureka. The company is helping to set up three European technology platforms under the 7th Framework Programme: ACARE in avionics, ARTEMIS in embedded software systems, and ENIAC in microelectronics and nano-electronics

Playing a central role in the Thales corporate research organisation, Thales Research & Technology comprises four research entities in France, the UK, the Netherlands and Singapore, as well as laboratories managed jointly by corporate research and Thales subsidiaries, and a network of research departments in operating units.

Singapore



First in Asia

In February 2005, Thales reached a teaming agreement with Nanyang Technological University to form a new research laboratory called Thales@NTU. This joint laboratory, the first with a university outside Europe, will develop advanced technologies for both defence and civil markets. Located at the NTU Research TechnoPlaza, it will focus on photonics, III-V semiconducting materials and devices, and Ultra Wide Band communications.



The French research teams now work in a new facility on the École Polytechnique campus outside Paris.

42 Executive Committee
and Board of Directors

39 Financial
data



Financial and corporate

AS A COMPANY LISTED ON FRANCE'S CAC40 INDEX, THALES REGULARLY COMMUNICATES WITH SHAREHOLDERS AND THE FINANCIAL MARKETS ABOUT ITS FINANCIAL SITUATION AND ITS STRATEGY, IN KEEPING WITH THE COMPANY'S CODE OF ETHICS AND RECOGNISED PRACTICES IN TERMS OF CORPORATE GOVERNANCE AND FINANCIAL MONITORING.

Further improvement in operations and financial position

CONSOLIDATED REVENUES REMAINED STABLE ON A LIKE-FOR-LIKE BASIS IN 2004 AND THE COMPANY FURTHER IMPROVED ITS PERFORMANCE AND FINANCIAL POSITION IN LINE WITH OBJECTIVES. THESE GOOD RESULTS IN A FIERCELY COMPETITIVE CONTEXT DEMONSTRATE THE SUCCESS OF A CONSISTENT LONG-TERM STRATEGY.

1/ BUSINESS ACTIVITY

Thales recorded **consolidated revenues of €10,288 million** in 2004, an apparent drop of 2.7% from 2003. In fact, revenues fell only slightly on a like-for-like basis (0.25%), remaining virtually stable overall with some variations between businesses.

Military sales by the **Aerospace** division grew, with the Rafale in France, export Mirage and maritime patrol programmes. The civil avionics business returned to growth, benefiting from higher Airbus sales and demand for support services. The decline in **Air Systems** revenues resulted from the billing schedules on several major contracts for missile systems and command centres. Sales by the air traffic management business did not yet reflect the recovery in air traffic volumes in 2004. In **Land & Joint Systems**, revenues from communication and command systems remained strong, with a sharp increase in sales of tactical radios to the US Army (+40% in dollar terms); sales of optronic equipment also increased significantly in the United Kingdom. Revenues from TV transmitters continued to decline due to the ongoing downturn in the American market.

Naval division sales declined, as expected, as several major frigate programmes including Sawari 2 neared completion, and despite increased revenues on the Franco-Italian Horizon frigates programme, Greece's Type S frigates and sonars for the United Kingdom and Malaysia. The **Security** division's sales increased substantially, particularly for electron tubes, financial transaction security and satellite navigation activities. Overall revenues in the **Services** division remained stable, with continued growth in information systems and engineering and consulting offsetting a temporary decline in training and simulation revenues.

Order intake fell to €9,350 million from €10,887 million in 2003, largely as a result of the postponement to 2005 of the formal award of several major programmes, including the Franco-Italian multimission frigate programme and the UK Watchkeeper programme, for which Thales was down-selected in 2004.

BREAKDOWN OF REVENUES BY BUSINESS

in M€	2003	2004	Total change	Organic change
Aerospace	2,073	2,121	+2%	+3%
Air Systems	1,498	1,378	-8%	-8%
Land & Joint Systems	2,367	2,391	+1%	+1%
Naval	2,157	2,037	-6%	-6%
Security	991	1,110	+12%	+13%
Services	1,135	1,149	+1%	+0%
Divested businesses and other	348	102	ns	ns
Consolidated revenues	10,569	10,288	-3%	-0.3%

2/ RESULTS

● **Operating income rose again** to €729 million compared with €698 million in 2003, representing a year-on-year increase of 4.5% and a 2.2% increase on a like-for-like basis. For the first time, operating margin for the Group as a whole exceeded 7% of revenues.

● Improved performance by the Aerospace, Air Systems and Naval divisions (excluding hulls for the Sawari 2 programme) resulted in margins in excess of 8.5%. In the Land & Joint Systems division, the decline in operating income was due to poorer performance by the radio and television transmitter subsidiary and the French optronics subsidiary. Communications and command information systems businesses generated a margin of close to 10% of revenues. Compared with 2003, the Security division doubled operating income, which represented 5.2% of revenues in 2004. Performance by the Services division was the same as the year before, with operating margin of 7.5% of revenues.

● The increase in operating income and the reduction of restructuring costs to the recurring level of approximately 1% of consolidated sales resulted in **a strong increase in EBIT**, from €497 million in 2003 to €619 million in 2004 (+25%).

● **Net financial expense continued to decline**, from €109 million in 2003 to €95 million in 2004, reflecting lower average net financial debt in 2004.

● **The negative impact of the financial component of pensions was reduced** from €85 million in 2003 to €81 million in 2004. This charge is primarily the amortisation of unrecognised actuarial losses correlated with the unfounded status estimated at end-2003.

● **Net income was €198 million, a 77% increase over 2003** (€112 million). This includes a loss of €26 million on disposals, (gain of €8 million in 2003), income tax of €58 million (€30 million in 2003) and amortisation of goodwill of €169 million, compared with €174 million in 2003.

SUMMARISED PROFIT AND LOSS STATEMENT

in M€	2003	2004
Revenues	10,569	10,288
Operating income	698	729
Restructuring costs	(197)	(110)
Other operating income (expense)	(4)	(0)
Earnings before interest and tax (EBIT)	497	619
Financial income (expense)	(109)	(95)
Equity in income of unconsolidated affiliates	18	18
Ordinary pre-tax income before financial component of pensions	406	542
Financial component of pension charge	(85)	(81)
Gain on disposals	8	(26)
Net income before amortisation of goodwill	329	435
Corporation tax	(30)	(58)
Amortisation of goodwill	(174)	(170)
Minority interests	(13)	(9)
Income (loss), Group share	112	198

3/ FINANCIAL POSITION

Cash flows in 2004

● **Operating cash flow was 10% higher** at €848 million. After the increase of €482 million in working capital requirements, half of which involved the Naval division (higher use of customer advances on the Sawari 2 programme), compared with €133 million in 2003, cash flow from operating activities was €366 million, compared with €637 million in 2003.

● **Net proceeds from disposals and acquisitions amounted to €192 million**, including €109 million from the disposal of non-core business and real estate assets and €83 million from the sale of treasury shares.

● **The balance of cash flows shows a net cash resource of €62 million.**

Further reduction in net debt

● As part of debt reduction policy that the company has pursued for four years, **net debt stood at €841 million** compared with €906 million at the end of 2003 and

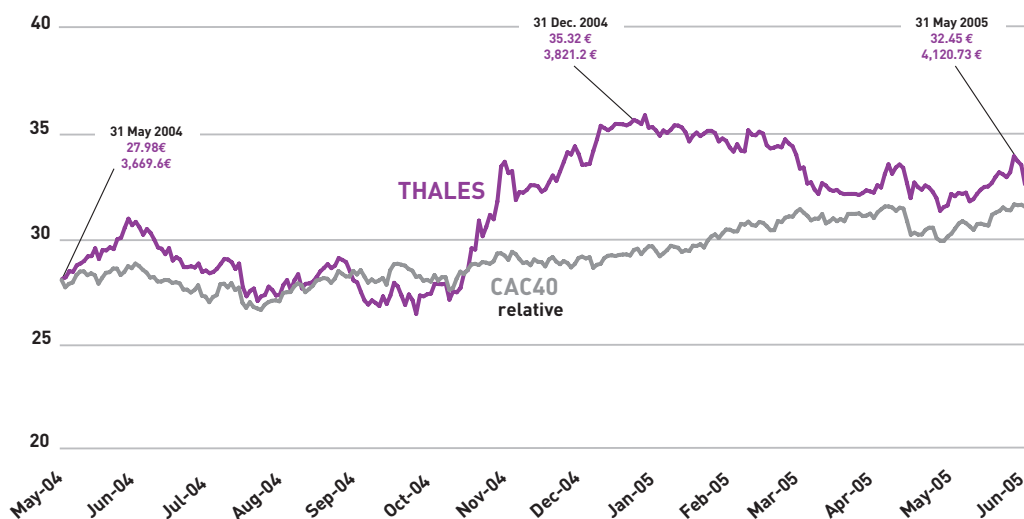
€1,320 million at the end of 2002. The net debt to debt-plus-equity ratio fell below the 30% mark to 29%. At the end of 2000, this ratio was 43%.

4/ OUTLOOK

For the current financial year, Thales expects to record:

- a slight rise in sales
- a further increase in operating income
- a strong increase in order intake
- additional charges of approximately €100 million per year for a competitiveness plan to be implemented over 2005 and 2006, which is expected to achieve a year-on-year increase in operating income of approximately 10% from 2006 and strengthen the research efforts that the company needs to develop its high-tech activities.

STOCK PRICE SINCE MAY 2004



ORGANISATION

EXECUTIVE COMMITTEE

The sixteen members of the Executive Committee are:

Denis Ranque,
Chairman and Chief Executive Officer

Bernard Rétat,
Vice-Chairman

Alex Dorrian,
Executive Vice-President, International Operations, CEO Thales UK

Jean-Paul Perrier,
Executive Vice-President, Marketing & Sales,
Chairman and CEO Thales International

Yves Barou,
Senior Vice-President, Human Resources

Sylvie Dumaine,
Senior Vice-President, Communications

Andrew Hibbert,
Senior Vice-President, General Counsel

Patrice Durand,
Senior Vice-President, Finance

Jean-Loup Picard,
Senior Vice-President, Strategy, Research & Technology

Reynald Seznec,
Senior Vice-President, Operations

Alexandre de Juniac,
Senior Vice-President, Air Systems

Jean-Paul Lepeyre,
Senior Vice-President, Services

Jean-Georges Malcor,
Senior Vice-President, Naval

François Quentin,
Senior Vice-President, Aerospace

Bruno Rambaud,
Senior Vice-President, Land & Joint Systems

Tim Robinson,
Senior Vice-President, Security

BOARD OF DIRECTORS

The members of the Board of Directors are:

Denis Ranque,

Chairman and Chief Executive Officer of Thales

Jean-Paul Barth,

Senior Executive Vice-President of Alcatel

François Bujon de l'Estang,

Ambassador of France

Charles de Croisset,

former Chairman and Chief Executive Officer of Crédit Commercial de France

Serge Dassault,

Chairman and Chief Executive Officer
of Groupe Industriel Marcel Dassault (GIMD) and Socpresse

Marie-Paule Delpierre,

director elected by the employees

Roger Freeman,

Chairman of the Advisory Board of PricewaterhouseCoopers Corporate Finance

Didier Gladieu,

director elected by the employees

Pierre Lafourcade,

representative of employee shareholders

Klaus Naumann,

Bundeswehr General (ret.)

Henri Proglio,

Chairman and Chief Executive Officer of Veolia Environnement

Marcel Roulet,

representing TSA, former Chairman
of Thomson, Thomson-CSF and France Telecom

Denis Samuel-Lajeunesse,

Managing Director, French Government Shareholding Agency

Serge Tchuruk,

Chairman and Chief Executive Officer of Alcatel

Benoît Tellier,

special advisor to the Chairman of Alcatel

Photos: H. Abbadie/Serau Architecte (p. 37), AFP (p. 8), F. Amson (p. 33), Armaris (p. 23), G. Bassignac/Gamma (p. 8, 16, 20, 28), L. Benevello (p. 8, 24, 28), D. Berbain/Gamma (p. 24), Boeing (p. 11), Ch. Brinkman (p. 11), D. Butow/Rea (p. 27), Chouchana/Gamma (p. 12), B. Collet (p. 30, 31, 34), A. Ericson/Gamma (p. 16), Eurocopter (p. 28), Gamma (p. 27), Getty Images (cover, p. 32), E. de Maglaive/Gamma (p. 15), Maxp (p. 2), Meigneux/Sipa (p. 24), F. Neema/Gamma (p. 8), S. Oskar/Zefa (p. 38), OTAN (p. 19), F. Robineau/Dassault/Aviaplan (p. 10), SPSE (p. 26), E. Stein/Photononstop (cover), A. Van der Stegen/Editing (p. 20), Working Links (p. 30), N. Zeng/Gamma (p. 12), Thales, X... • **Translation:** e-files • **Design and production:** **PUBLI^{ORP}** 4877.

Thales
45 rue de Villiers
92526 Neuilly-sur-Seine Cedex
France
Tel.: +33 (0) 1 57 77 80 00
www.thalesgroup.com

THALES