

2016 INTEGRATED REPORT

# Corporate Responsibility





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# CHAIRMAN'S MESSAGE



In 2016, Thales continued along a path of profitable, long-term growth in all of its businesses<sup>(1)</sup>. Beyond this economic performance, 2016 also illustrated the Group's ability to step up to the social, societal and environmental challenges that characterise its markets today.

*(1) Aerospace, Space, Ground Transportation, Defence and Security.*

“ In times of uncertainty,  
it is more important than  
ever to have convictions. ”

**In a world that is constantly changing and becoming increasingly interconnected, interdependent and mobile, the challenge of providing security for people, property and data has ethical as well as technological ramifications.** Privacy concerns, access to personal data and the transparency of businesses and organisations are now important priorities for society at large, alongside human rights, environmental protection and the prevention of corruption. Many countries have adopted new rules and tightened existing regulations to meet the demands of civil society.

Thales is fully aware of these societal changes and the new responsibilities that accrue to organisations like ours. For more than 15 years, we have developed a policy of corporate responsibility and engagement with respect to all the company's stakeholders. This second edition of Thales's Integrated Report on Corporate Responsibility, drawn up according to the guidelines of the International Integrated Reporting Council (IIRC), describes this long-term policy and process of continuous improvement.

Reflecting the growing importance of these issues, the Thales Board of Directors has placed corporate responsibility at the very highest level of corporate governance, making it an integral part of the mission of the Board's strategy committee from the beginning of 2017.

Another key development of 2016 was the launch of a wide-ranging transformation plan to embrace the opportunities of the digital revolution. Based on four key digital technologies that cut across all of Thales's core businesses — artificial intelligence, cybersecurity, big data and connectivity — this transformation is driving the development of innovative solutions that create value for our customers and help them to meet new challenges in each of their respective markets.

To support this transformation, we have taken further steps across the entire organisation to increase diversity in our workforce. I am firmly convinced that diversity strengthens our potential for innovation by fostering a greater variety of approaches, perspectives and ideas.

Through all these measures, we also intend to build sustainable relationships of mutual trust with our customers, investors, regulators and all our other stakeholders. This mutual trust and an unflagging commitment to fundamental rights are key to our performance in the long term. Recognising this continuing engagement, the Dow Jones Sustainability Index in 2016 once again ranked Thales as the top European company in its sector; the Carbon Disclosure Project awarded Thales a rating of A- for its climate change performance; and for the fifth consecutive year the company

achieved Advanced level under the United Nations Global Compact.

In times of uncertainty, it is more important than ever to have convictions. Our conviction is that Thales's success, based on performance, innovation and responsibility, can only be achieved through positive, strong, sustainable interactions with all our stakeholders.



**Patrice Caine**

Chairman & Chief Executive Officer, Thales



# ABOUT THIS REPORT

In a diversified global organisation like Thales, acting responsibly is more than a compelling narrative. It is integral to the notions of security and performance. Beyond its obligation to comply with laws and standards of ethical conduct, Thales sees corporate responsibility as a key strategic advantage for the business.

In line with **professional best practices** and based on the Company's experience in this area, this integrated report is based on the guiding principles of the International Integrated Reporting Council (IIRC). It explains how Thales's strategy, governance, and financial as well as extra-financial (environmental, social, governance and societal) performance create value for stakeholders. Thales believes this document will contribute to a **better understanding of its business activities**, the complexity of its working environments and the **Company's commitment** to all of its stakeholders.

## Methodology

An internal working group under the guidance of the Ethics and Corporate Responsibility Department, and comprising members from several functional departments, was involved throughout the process to provide the underlying structure for this information.

From the outset, the aim has been for the report to focus on the **strategic priorities** at Thales, and to select and explain only the most important facets of these. The integrated report supplements the 2016 registration document<sup>(1)</sup> and refers to it in many instances.

The report also includes the results of the **materiality assessment of Thales's goals**, which was carried out internally in 2015 on the basis of studies and cross-functional workshops devoted to environmental, social and economic issues. The materiality assessment was also reviewed by stakeholders and a consensus was reached before the results were released.

This integrated report is part of Thales's long-term improvement approach.

### ► TO FIND OUT MORE

[ethics.cr@thalesgroup.com](mailto:ethics.cr@thalesgroup.com)

## Scope

The report covers the **2016 financial year** (1 January 2016 to 31 December 2016). It includes medium- and long-term outlooks and thus provides a **forward-looking view of the Group within its environment**.

**AcceDe**  
Accessibility of PDF Documents

(1) Can be downloaded from: [www.thalesgroup.com/en/investors](http://www.thalesgroup.com/en/investors)

# OTHER THALES PUBLICATIONS

### 2016 REGISTRATION DOCUMENT

[www.thalesgroup.com](http://www.thalesgroup.com)  
Under the 'Investor' heading

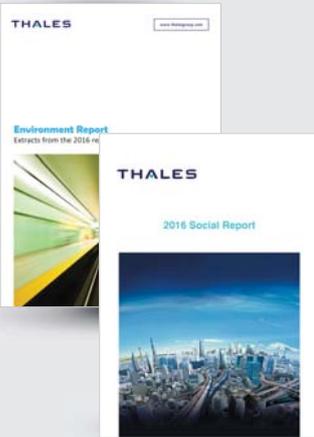


Shares/credit investors • CSR investors • Individual shareholders • NGOs • National authorities

Document complies with French and European regulations, and includes, in particular, the annual financial report and the Board's management report, as well as social, environmental and societal information and information on corporate governance.

### 2016 SOCIAL REPORT / 2016 ENVIRONMENT REPORT

[www.thalesgroup.com](http://www.thalesgroup.com)  
Under 'Global/Commitments/Key documents' headings



CSR Investors • NGOs • Customers and Partners • Suppliers • Shareholders • Employees • Civil Society

Presents Thales's main human resources and environmental policies.

### THALES GROUP PRESENTATION

[www.thalesgroup.com](http://www.thalesgroup.com)  
Under 'Global/Group/Overview' headings

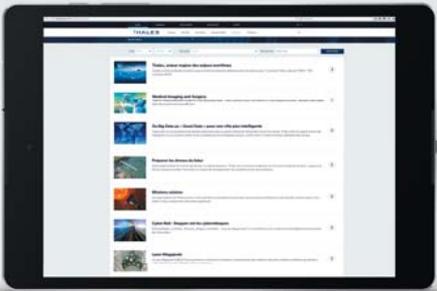


CSR Investors • NGOs • Customers and Partners • Suppliers • Shareholders • Employees • Civil Society

Presents Thales's missions, values, principles and business activities.

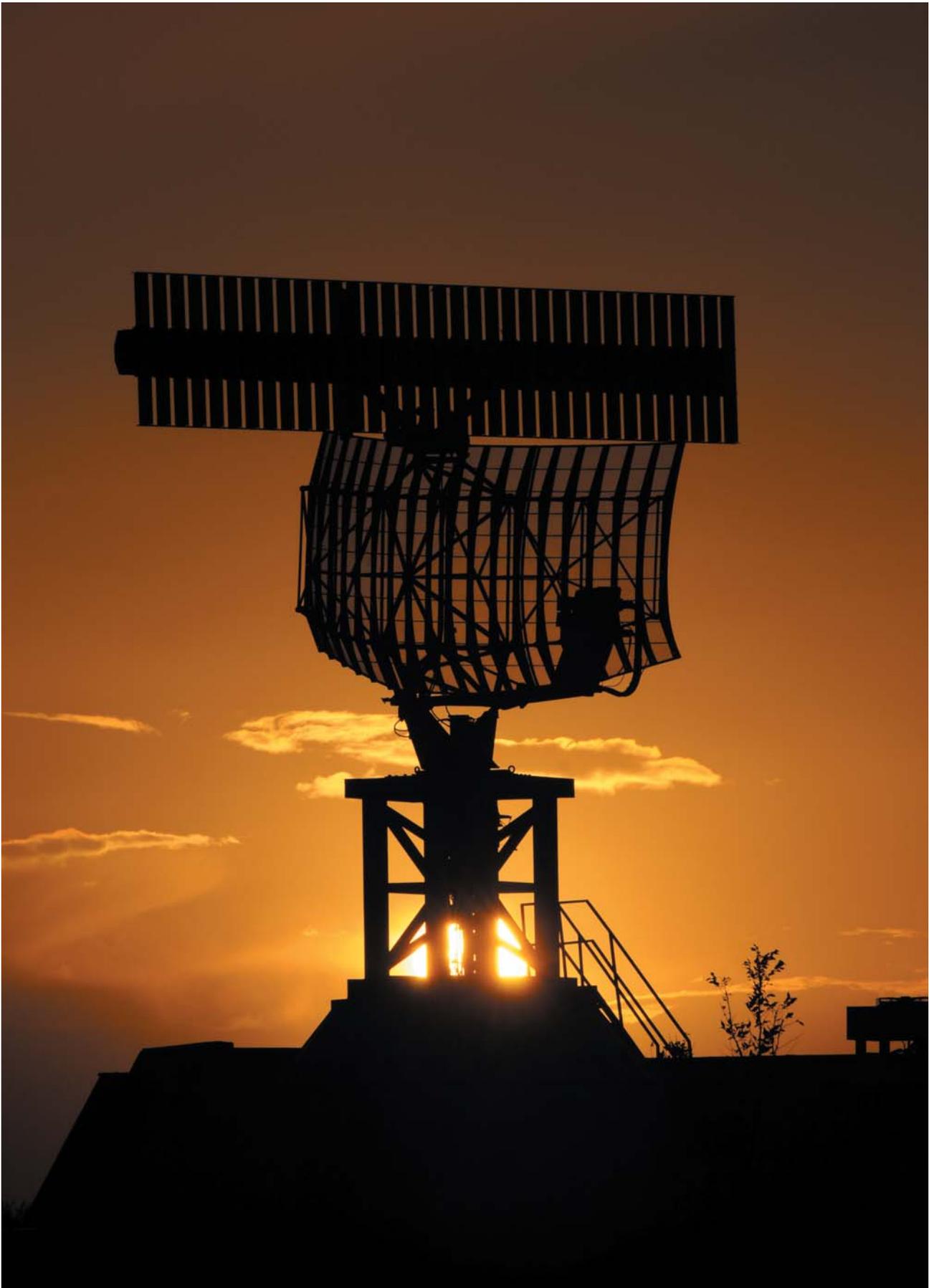
### THALES MAGAZINE

[www.thalesgroup.com](http://www.thalesgroup.com)  
Under 'Global/Magazine' headings



CSR Investors • NGOs • Customers and Partners • Suppliers • Shareholders • Employees • Civil Society

Presents the technological, geopolitical and economic developments likely to affect Thales's markets.



# PRINCIPLES OF RESPONSIBILITY



Launched in 2000, the United Nations Global Compact (UNGC)<sup>(1)</sup> is both a policy platform and a practical framework for companies that are committed to sustainable business practices. It seeks to align business operations and strategies everywhere with 10 universally accepted principles. More than 12,000 organisations around the world, including 9,269 companies, have joined the Global Compact. Thales has been a **member since 2003**, and has adopted the 10 principles of the Global Compact. In 2012, through its annual Communication on Progress (COP), **Thales** reached the **Global Compact Advanced** level under the United Nations Global Compact Differentiation Programme, which evaluates companies on the basis of 21 specific criteria and represents the highest standard of sustainability performance and reporting. Thales is listed as one of just **527** companies worldwide to have achieved the GC Advanced level.

## HUMAN RIGHTS

- Principle 1**  
Businesses should support and respect the protection of internationally proclaimed Human Rights. 16, 35-38, 43-45, 71, 75-77, 82-85, 93
- Principle 2**  
Businesses should make sure they are not complicit in Human Rights abuses. 16, 35-38, 43-45, 71, 93

## LABOUR STANDARDS

- Principle 3**  
Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining. 16, 35-38, 43-44, 71-73, 75-77, 91-92
- Principle 4**  
The elimination of all forms of forced and compulsory labour. 16, 35-38, 43-44, 71-72, 76-77, 91-92
- Principle 5**  
Businesses should uphold the effective abolition of child labour. 16, 35-38, 43-44, 71-73, 75-77, 91-92
- Principle 6**  
Businesses should uphold the elimination of discrimination in respect of employment and occupation. 16, 35-38, 43-44, 71-73, 75-77, 91-92

## ENVIRONMENT

- Principle 7**  
Businesses should support a precautionary approach to environmental challenges. 16, 35, 43-47, 71, 78-81, 90
- Principle 8**  
Businesses should undertake initiatives to promote greater environmental responsibility. 16, 35, 43-47, 71, 78-81, 90
- Principle 9**  
Businesses should encourage the development and diffusion of environmentally friendly technologies. 16, 35, 43-47, 71, 78-81, 90

## ANTI-CORRUPTION

- Principle 10**  
Businesses should work against corruption in all its forms, including extortion and bribery. 16, 33-39, 46, 71, 93

(1) [www.unglobalcompact.org](http://www.unglobalcompact.org)



# THALES, FOR A SAFER WORLD

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# 2016 KEY FIGURES

## REVENUES

**€14.9**  
bn



A BALANCED  
REVENUE STRUCTURE

Defence  
**50%**

Civil  
**50%**

## ORDER INTAKE

**€16.5**  
bn



## EBIT

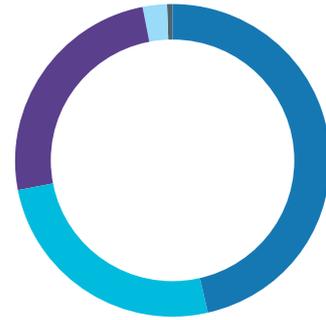
**€1.35**  
bn

## CUSTOMER SATISFACTION RATE

**74%**



## BREAKDOWN OF SHAREHOLDERS



- > 46.4%**  
Individual and institutional shareholders
- > 25.8%**  
Public Sector
- > 24.8%**  
Dassault Aviation
- > 2.7%**  
Employees<sup>(1)</sup>
- > 0.3 %**  
Treasury stock

*(1) Shares owned by employees through a company savings plan or company investment fund.*

## THALES SHARE PRICE PERFORMANCE 2013-2016

Share price in euros





GLOBAL  
PRESENCE

**56**  
Countries



EMPLOYEES (WORKFORCE  
UNDER MANAGEMENT  
AT 31 DECEMBER 2016)

**64,071**



**No.1**  
Worldwide

PAYLOADS FOR  
TELECOM SATELLITES

AIR TRAFFIC  
MANAGEMENT

SONARS

SECURITY  
FOR INTERBANK  
TRANSACTIONS

**No.2**  
Worldwide

RAIL  
SIGNALLING  
SYSTEMS

IN-FLIGHT  
ENTERTAINMENT  
AND CONNECTIVITY

MILITARY TACTICAL  
RADIOCOMMUNICATIONS

**No.3**  
Worldwide

COMMERCIAL  
AVIONICS

CIVIL SATELLITES

MILITARY SURFACE  
RADARS

# VALUE CREATION AND PERFORMANCE

## A Focus on Creating Value

Creating value for all of Thales's stakeholders lies at the heart of the Company's strategy. Drawing on the three pillars of the Company's Ambition 10 strategic plan – growth, competitiveness and talent – Thales

seeks **sustainable development** and performance improvement.

The diagram opposite presents a streamlined picture of the **financial and extra-financial value that Thales creates**

**for its stakeholders around the Company's six main types of capital:** human capital, manufacturing capital, financial capital, environmental capital, societal capital and intellectual capital.



VALUE CREATION PROCESS

**FINANCIAL CAPITAL**

€2.37bn net cash  
€393m acquisitions  
€286m disposals

**MANUFACTURING CAPITAL**

€472m capital investments  
€22.7bn assets

**INTELLECTUAL CAPITAL**

€743m self-funded R&D  
25,000 people in R&D

**HUMAN CAPITAL**

64,071 employees  
€6,025m payroll  
76.9% engineers and managers  
84.2% of employees attended a training course in 2016  
Over 25,000 employee shareholders

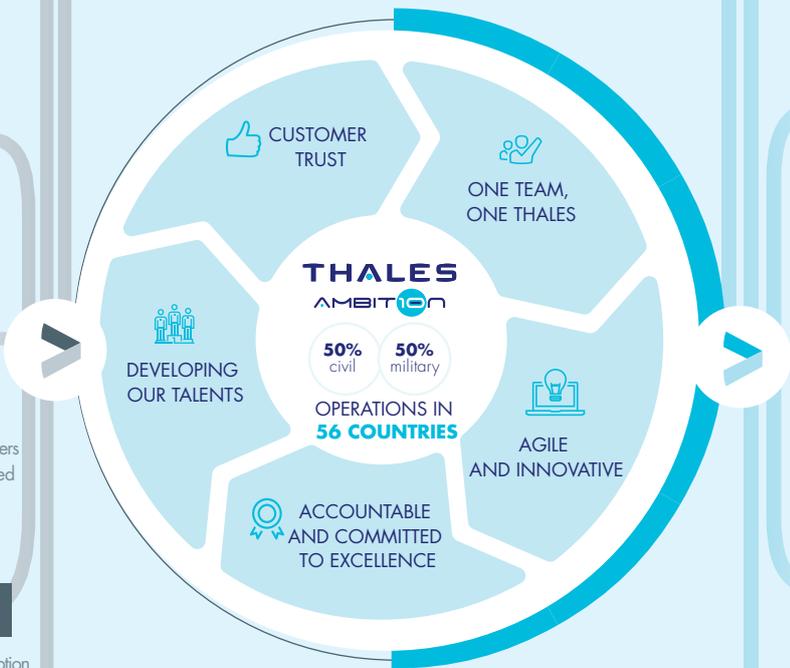
**ENVIRONMENTAL CAPITAL**

155,000 TOE energy consumption  
341,658 t CO<sub>2</sub> emissions  
1,584 m<sup>3</sup> water consumption  
Thales signatory to Business Proposal for COP21

TOE: tonne oil equivalent

**SOCIETAL CAPITAL**

Proactive corporate responsibility policy  
Rigorous, permanent internal control procedures



END-TO-END MANAGEMENT OF THE CRITICAL DECISION CHAIN

**FINANCIAL CAPITAL**

€1,354m EBIT  
€946m consolidated net income  
€297m dividends paid  
Growth of 247% in share price between 01/01/2013 and 12/31/2016

**MANUFACTURING CAPITAL**

€14.9bn sales  
€16.5bn order intake  
14 orders with unit value above €100m in 2016

**INTELLECTUAL CAPITAL**

300 new patent applications in 2016  
Clarivate Analytics (formerly Thomson Reuters) ranked Thales among the world's 100 most innovative companies in 2016

**HUMAN CAPITAL**

7,206 new hires of which 4,844 on open-ended contracts  
97.4% total open-ended contracts / 93.4% full-time  
22 Thales Education Prize scholarships awarded

**ENVIRONMENTAL CAPITAL**

Energy consumption per unit of revenue: -7%  
Water consumption per unit of revenue: -6%  
Waste production per unit of revenue: -7.2%

**SOCIETAL CAPITAL**

€341m theoretical tax charge (average tax rate 29.6%)  
40 projects financed by Thales Foundation; 160 employee volunteers  
2,720 employees donated €124,000 via payroll giving scheme  
1<sup>st</sup> European company, 2<sup>nd</sup> worldwide in its category in DJSI rankings  
UN Global Compact Advanced Level for five years

## Financial Performance in 2016

<i>(in € millions, except earnings per share and dividend – in €)</i>	<b>2016</b>	<b>2015</b>	<b>Total change</b>	<b>Organic change</b>
Order intake	16,514	18,880	-13%	-11%
Order book at end of period	33,530	32,292	+4%	+5%
Sales	14,885	14,063	+5.8%	+6.8%
EBIT <sup>(a)</sup>	1,354	1,216	+11%	+15%
<i>in % of sales</i>	9.1%	8.6%	+0.5 pts	+0.6 pts
Adjusted net income, Group share <sup>(a)</sup>	897	809	+11%	
Consolidated net income, Group share	946	765	+24%	
Adjusted net income, Group share, per share <sup>(a)</sup>	4.25	3.89	+9%	
Dividend per share <sup>(b)</sup>	1.60	1.36	+18%	
Free operating cash flow <sup>(a)</sup>	954	1,110	-14%	
Net cash at end of period	2,366	1,978	+20%	

(a) Non-GAAP measures.

(b) Recommended to the Shareholders' Meeting on 17 May 2017.

**Order intake in 2016** amounted to **€16,514m**, down 13% on the record high of 2015 (down 11% at constant scope and currency). Commercial momentum was solid in all of the Group's businesses, with the decrease explained by an exceptional volume of large orders booked in 2015. At 31 December 2016, the Group's **consolidated order book** stood at **€33,530m**, which represents almost 2.3 years of sales, improving the visibility for the businesses in the coming years.

**Sales** came in at **€14,885m**, up 5.8% on a reported basis, and up 6.8% at constant scope and exchange rates ("organic" change). Emerging market sales maintained a high level of growth (14% organic growth, after 16% in 2015), while sales in mature markets<sup>(1)</sup> regained momentum (up 4%, after 1% in 2015).

In 2016, consolidated **EBIT was €1,354m** (9.1% of sales), versus €1,216m (8.6% of sales) in 2015. EBIT benefited in particular from the first effects that began to filter through from the operational recovery of the Transport segment, as well as the continued solid performance of the Aerospace and Defence & Security segments.

**The Group exceeded all the financial objectives it had set for 2016:** an order intake of between €15.5bn and €16bn, organic sales growth slightly above 5%, and an EBIT of between €1,300m and €1,330m, based on February 2016 exchange rates.

**Adjusted net income**, Group share rose 11% to **€897m**, in line with EBIT growth.

**Consolidated net income**, Group share was **€946m**, up 24% year-on-year, benefiting from EBIT growth and from a sharp rise in disposals of assets.

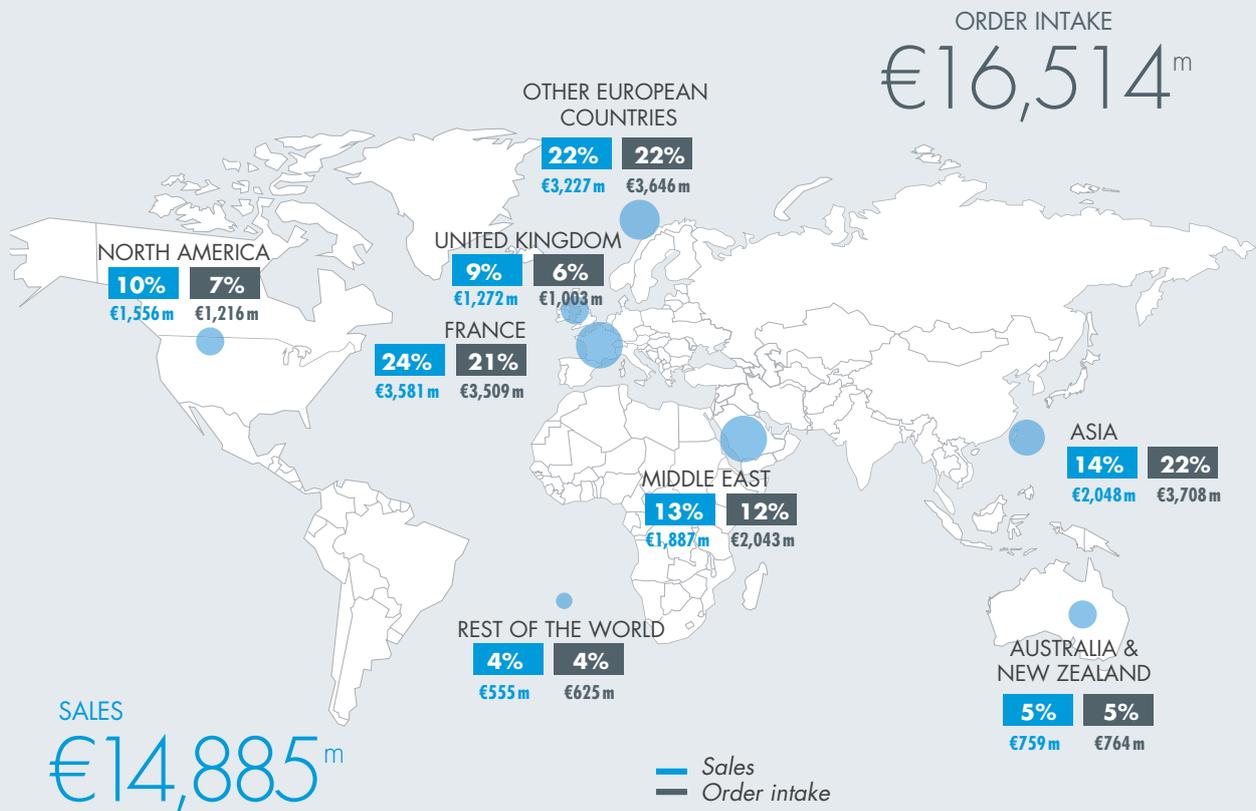
**Free operating cash flow** came in at **€954m** in 2016. This continued strong cash flow performance was boosted by the rise in adjusted net income and by advance payments received on orders during the year.

At 31 December 2016, **net cash** was **€2,366m**, up almost €400m compared to 31 December 2015.

As a result, the Board of Directors decided to propose, at the 17 May 2017 Shareholders' Meeting, payment of a **dividend of €1.60** per share, an increase of 18% compared to 2015.

(1) Mature markets: Europe, North America, Australia, New Zealand. Emerging markets: all other countries.

SALES/ORDER INTAKE BY GEOGRAPHIC AREA



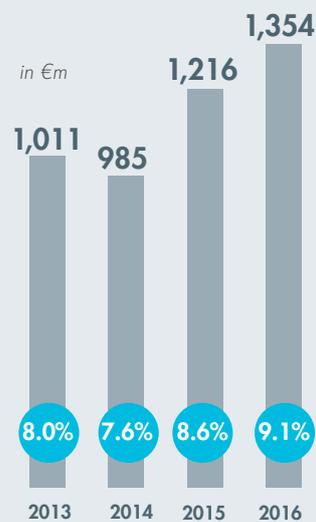
DIVIDEND

€ per share



EBIT

in €m



## Extra-Financial Performance in 2016

For over **fifteen years now**, Thales has implemented a **strong proactive corporate responsibility policy** based on the highest international standards.

Thales's approach is embodied by its involvement in the **UN Global Compact**; the Group has been a **signatory since 2003**. Thales is one of 527 companies around the world that has successfully submitted its Communication on Progress (COP) to the UN at the **Global Compact Advanced** level.

The Group also attaches the utmost importance to **ethical behaviour, transparency** and **dialogue** with regard to its customers and suppliers as well as its employees, its shareholders, the financial markets and civil society. This proactive approach is mainly carried out on the basis of a Code of Ethics and a dedicated organisation.

As a result of its corruption risk prevention programme, **Thales** is now **one of the four leading European companies in Transparency International's "Anti-Corruption Index"** covering companies in the defence sector (latest ranking in 2015<sup>(1)</sup>).

Thales is a **leading player** in the international effort to **promote best practices** with professional associations in the **Aerospace** and **Defence** sector, international organisations and non-governmental agencies.

For the second year running, **Thales** in 2016 received the second-highest score in the Aerospace and Defence sector of the **Dow Jones Sustainability Indices (DJSI)** created by the asset management company RobecoSAM specialised in sustainable investment.

With 83 points, Thales ranks **No. 2 worldwide** and **No. 1 in Europe** in the Aerospace and Defence sector, up 6 points overall. Based on this **excellent performance**, RobecoSAM once again included Thales in its Sustainability Yearbook 2017, which features 15% of the best-performing companies in terms of corporate responsibility, and ranked Thales in the "Gold" category.

Moreover, since 2005, Thales has chosen to communicate in a totally transparent way about its climate strategy to the **Carbon Disclosure Project (CDP)**, an association which aims to inform the investment decisions made by its institutional investor members, by telling them about the consequences of climate change for companies. In 2016, **Thales** was awarded a rating of A- for its "climate change" performance, making it one of the **best-performing companies** listed.

Finally, the Thales group actively contributes to local economic and social life in the countries and regions where the Group operates, either directly or through its **Foundation**, which focuses its efforts on two areas: science **education** and **humanitarian assistance**.

### ➤ TO FIND OUT MORE

- Corporate responsibility, see p. 35
- Stepping up to major environmental challenges, see p. 78
- A policy of global and local commitment, see p. 82



WE SUPPORT



MEMBER OF

**Dow Jones Sustainability Indices**

In Collaboration with RobecoSAM



**THALES**  
Foundation

(1) [companies.defenceindex.org](http://companies.defenceindex.org)

# OUR MISSION

Thales puts the best technologies at its customers' service to help them accomplish their missions.

Wherever critical decisions need to be made, Thales is there: in the aerospace, space, ground transportation, defence and security markets, Thales solutions help customers choose the right option and act accordingly. **We have a unique value proposition and a central role in supporting the crucial missions of protecting people, property and information.**

The Thales group is a global organisation focused on helping its **civil and military customers** to **perform difficult tasks** in **critical environments**.

Thales offers them:

- > the technical expertise and commitment of its teams;
- > well-established local support;
- > high standards of service as part of an ongoing improvement process.

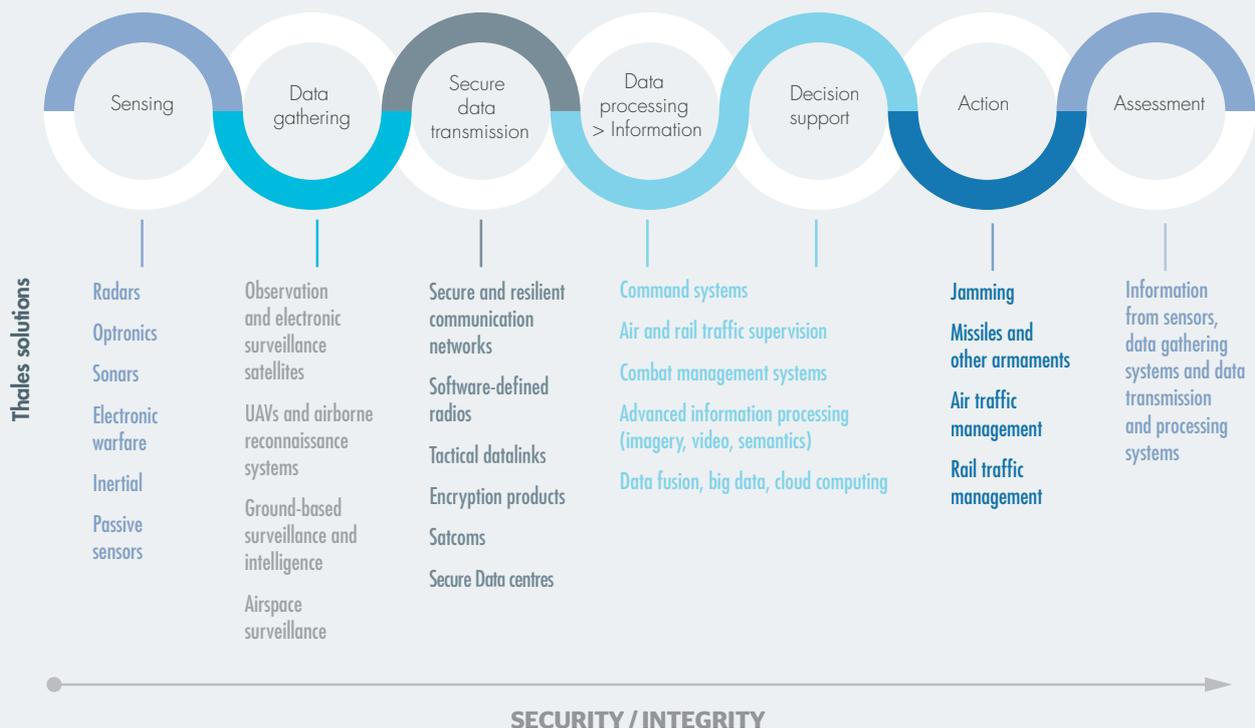
World-class technologies and the combined expertise of **64,071 employees** and local operations in **56 countries** make Thales a **key player** in **protecting citizens, infrastructures, nations and cyberspace**.

In these complex and ever-changing times, Thales is proud to be helping to **make the world a safer place**.

“ The right decision at the right time: in an increasingly mobile, interconnected and interdependent world, our solutions help customers choose the best option and act accordingly. ”

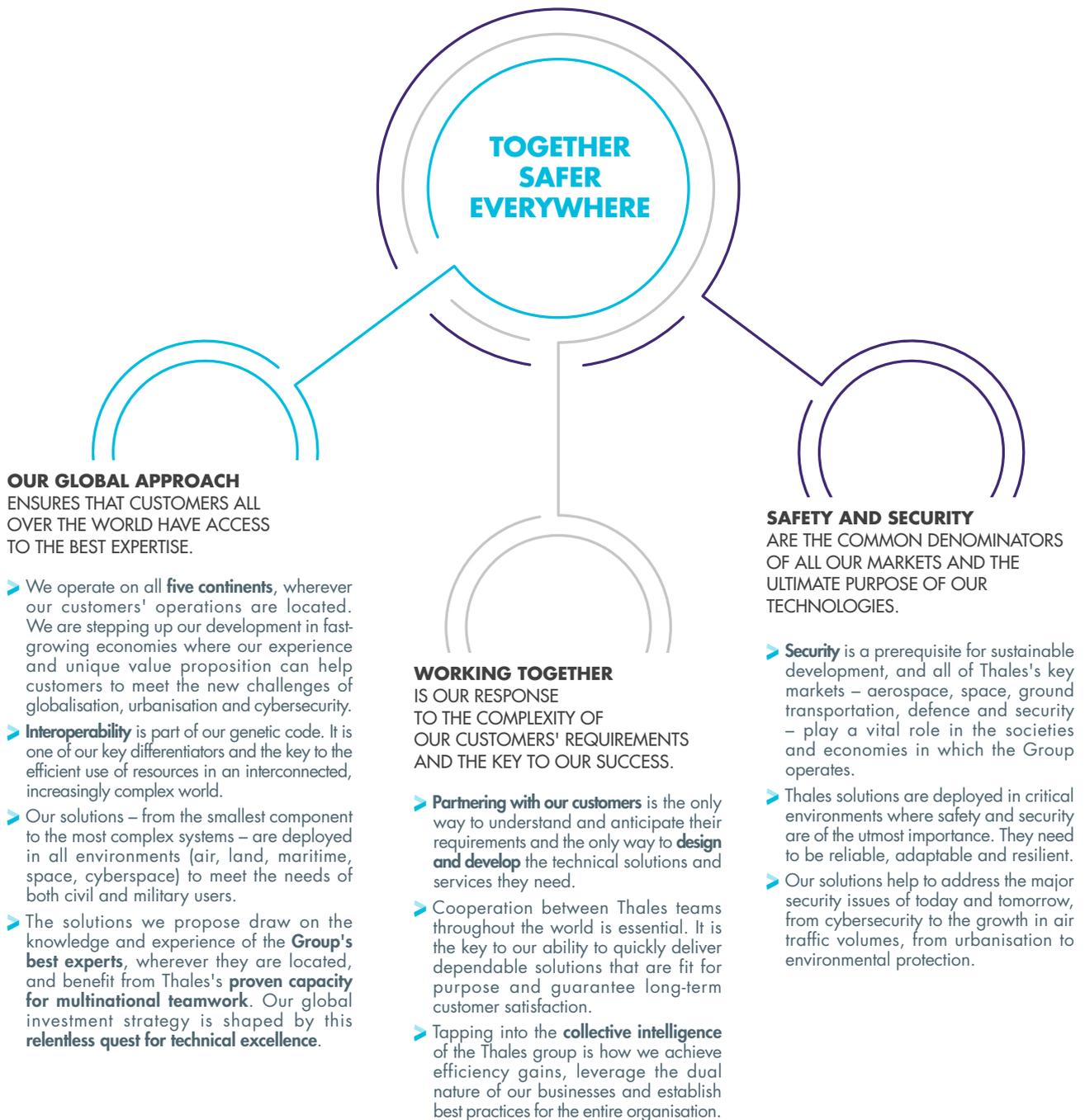
The Thales solutions that help customers to make the right decisions at the right time and act accordingly

## The Critical Decision Chain



# OUR FOUNDING PRINCIPLES

Thales is an international powerhouse of talent and human endeavour, encompassing a rich variety of professional backgrounds and national cultures. Throughout the world, these multicultural teams are driven by the same spirit of innovation, performance, responsibility and ethics in their pursuit of customer satisfaction.



## Our Values

### CUSTOMER TRUST

To succeed, we must work as partners with our customers, listening to them, anticipating their needs and finding solutions together. We work to achieve long-term customer satisfaction by delivering on our promises and assuring the quality of our solutions and services.

### DEVELOPING OUR PEOPLE

Supporting the professional development of each employee is fundamental. We respect diversity and promote knowledge-sharing. We encourage dialogue. We promote collective achievements and individual talents.

### ONE TEAM, ONE THALES

We share responsibilities in a culture of loyalty, partnership and transparency. We encourage solidarity and cooperation at every level of the organisation. We are all on the same team and united in our actions.



### AGILE AND INNOVATIVE

We aim to continually improve quality and work more efficiently. This means being ready to take risks, always demonstrating leadership, deciding quickly and acting on our decisions immediately. We strive to build on new ideas to achieve a competitive advantage.

### ACCOUNTABLE AND COMMITTED TO EXCELLENCE

We strive to achieve excellence by acting with integrity, loyalty, accountability and professionalism in everything we do.

# THALES'S 5 MAJOR MARKETS

Each of the markets that Thales serves – aerospace, space, ground transportation, defence and security – plays a vital role in society.

Thales operates as a single organisation, drawing on the **talent and technologies of the entire Group** to act as prime contractor, systems integrator, equipment supplier and value-added service provider, **spanning the entire value chain** on both civil and military programmes.

## AEROSPACE



- No. 1 WORLDWIDE** in air traffic management
- No. 2 WORLDWIDE** in in-flight entertainment
- No. 3 WORLDWIDE AND No. 1 IN EUROPE** in commercial avionics

### A COMPREHENSIVE RESPONSE TO THE NEEDS OF THE AIR TRANSPORT SECTOR

Thales is the only company in the world with **leadership positions** in both **onboard equipment** – for the cockpit and the cabin – and **ground equipment** (radar, air traffic management systems, etc.).

Market leadership in avionics, air traffic management and space systems makes Thales the world's only company with the capacity to provide a **comprehensive end-to-end response** to the **challenges of air transport**.

Thales contributes to the future prosperity of the civil aerospace sector by providing equipment, systems and services - both in the air and on the ground - to support aircraft manufacturers, airlines, air traffic controllers, airports and civil aviation authorities in meeting the challenges of **growth, safety, economic and environmental performance, security and passenger comfort**.

- Two out of three aircraft in the world take off and land using Thales equipment.
- Thales has equipped over 160 control centres around the world, which together cover more than 40% of global airspace.
- More than 750,000 passengers use Thales in-flight entertainment systems every day, equivalent to almost 274m users per year.
- Thales supplies avionics for Airbus, ATR, Boeing, Bombardier, Cessna, Dassault, Gulfstream and Sukhoi.

## SPACE



**No. 1 WORLDWIDE** in payloads for telecommunication satellites

**No. 3 WORLDWIDE** in commercial/civil satellites

**EUROPEAN LEADER** in satellite systems and a major player in orbital infrastructure

#### A KEY CONTRIBUTION TO MAJOR SPACE PROGRAMMES

Space systems play a vital role in modern societies, particularly for Telecommunications, Earth observation (radar and optical), satellite navigation and deep-space exploration. **Thales** continues to set the **global standard** in each of these areas through two joint ventures with Leonardo of Italy: Thales Alenia Space and Telespazio.

Thales provides commercial, institutional and military customers with an exceptional combination of **expertise spanning the entire value chain**: equipment, payloads, satellites, systems and services. Thales's space businesses complement the Group's other activities, and vice-versa, and represent a distinct competitive advantage by enabling Thales to offer customers complete end-to-end solutions and play a **central role in major civil and military programmes**. In defence, for example, space systems are a key component of **C4ISTAR** (Command, Control, Communications, Computers, Intelligence, Surveillance, Target Acquisition and Reconnaissance). The space component is also prominent in most of the programmes now defining the future of air traffic management as well as in rail and road traffic projects around the world.

- Thales Alenia Space is the world leader in communication satellite constellations. The Company is prime contractor for Iridium NEXT, a low-earth-orbit constellation of 81 satellites, the first of which are now in orbit.
- Thales Alenia Space is contributing to most of Europe's Earth observation and climate-related space missions.
- Thales Alenia Space is the world leader in meteorology systems – with three generations of European Meteosat satellites since the late 1970s – and in altimetry.
- Thales Alenia Space is prime contractor for the ExoMars programme, Europe's first Mars exploration mission in search of signs of life.

## GROUND TRANSPORTATION



**No. 2 WORLDWIDE** in rail signalling

#### LEADING THE WAY IN TRANSPORT SOLUTIONS

**Thales** helps transport operators and infrastructure managers to get the most out of their investments by optimising their operational performance, offering better passenger services and managing the growing complexity of their networks. Thales systems and services make it possible to **operate transport infrastructures at higher capacity** and to **carry** passengers and goods to their destinations **more quickly, more safely** and at **lower cost**.

The Group is one of the world's foremost players in rail signalling systems and control and surveillance systems for urban and mainline rail networks.

#### A UNIQUE 'SYSTEMS' APPROACH

Most of the other players in the transportation sector have traditionally been rolling stock providers. In contrast, the **Thales systems approach** enables us to develop **innovative solutions** based on **state-of-the-art technologies**. Our solutions can be integrated and interfaced with most existing solutions, so that infrastructure operators and managers have **more freedom and flexibility** in their choice of rolling stock and other equipment in a transportation project. The Group is one of the **pioneers in the definition of the de facto standards** that are structuring the rail transport sector today: **CBTC** systems (Communications-Based Train Control) for metros, **ETCS** systems (European Train Control System) for mainline rail, integrated supervision systems, etc.

- Thales's SelTrac® CBTC system currently operates on 80 lines in 40 cities worldwide, carrying three billion passengers annually.
- Some 15,700 km of railway lines around the world are equipped with the ETCS solution from Thales.
- In Switzerland, the signalling system for the Gotthard tunnel – the world's longest railway tunnel – was delivered and brought into service in 2016, one year ahead of schedule.
- The two largest driverless metro systems in the world – Dubai (75 km) and Vancouver (79 km) – are equipped with a complete solution supplied by Thales.

## DEFENCE



- No. 1 WORLDWIDE** in dipping sonars
- No. 1 IN EUROPE** in defence electronics
- No. 2 WORLDWIDE** in military radio communications
- No. 3 WORLDWIDE AND No. 1 IN EUROPE** in surface radars for land and naval defence forces

### SERVING ALL BRANCHES OF THE ARMED FORCES, EVERYWHERE

Thales is a long-standing partner of defence forces worldwide, working with them to provide the **best possible protection** in the field and helping them **operate more effectively and more efficiently**.

Thales supports the armed forces in accomplishing their missions in the traditional defence environments – **land, air, sea and space** – and the emerging environments of **urban operations** and **cyberspace**. These systems detect and assess threats, manage information, support rapid command decisions and the implementation of suitable responses (including threat neutralisation), with maximum reliability. Furthermore, by facilitating the **coordination of joint or coalition operations**, they contribute to the **decision-making superiority** of these forces.

### OPTIMISED OPERATIONAL PERFORMANCE

From system design to through-life support and personnel training, Thales support services ensure that the Company's solutions continue to perform optimally, now and in the future.

- Thales equipment and systems represent almost 25% of the total value of the Rafale combat aircraft.
- Thales is prime contractor for the United Kingdom's Watchkeeper system, Europe's largest UAV-based battlefield surveillance programme.
- Around the world, Thales equips more than 50 land forces, over 70 types of aircraft and over 40 naval forces.

## SECURITY



- No. 1 WORLDWIDE** in interbank transaction security
- No. 1 IN EUROPE** in cybersecurity

### MANAGING NEW RISKS

With the emergence of threats such as terrorism, organised crime, trafficking and cyberattacks, defence organisations alone are not fully equipped to contend with the changing risk environment. This **convergence between defence and security** is driving demand for **new solutions and technologies** that enable organisations to share existing **information and communication systems** while **protecting their networks and infrastructure** from attack.

### INTEGRATED AND RESILIENT SOLUTIONS

Drawing on its **experience in the defence sector**, Thales works with government agencies, local authorities and civil operators to develop and deploy integrated, resilient solutions to **protect citizens, sensitive data and infrastructure**. The Group has developed unrivalled expertise in **cybersecurity, telecom network security, urban security, airport security, border protection and infrastructure security**.

The Group's distinctive strengths include the ability to **integrate large-scale, complex systems** and leverage the legacy solutions of each customer. In addition, **Thales** systems are built around key **components and technologies** in which the Company has **expertise**: sensors, secure networks and information systems, 4G, secure cloud computing, data processing algorithms, data fusion, big data and management of large volumes of video, voice, text and data.

- Thales offers a full spectrum of services to counter the growing threat of cyberattacks.
- Thales has been awarded a 30-year contract to operate the Secure Information and Communication Systems at the French Defence Ministry's new headquarters in Paris.
- Since 2005, Thales has provided security for millions of Muslims making the Hajj pilgrimage to Mecca.
- Thales has provided Mexico City (population: 20 million) with the world's most extensive urban security system.

# A BALANCED BUSINESS MODEL

## Presence in 56 Countries

For many years, Thales's international strategy has revolved around **local country operations**, making the Group a **major industry player** in its traditional countries of operation (France, the United Kingdom, the Netherlands, the United States, Canada, Australia) and now helping to expand its business in countries with strong economic growth, particularly in Asia, South America and the Middle East.

This strategy, which embodies Thales's **focus on customers and long-term support**, also gives Thales access to major domestic programmes, and enables the Company to forge partnerships with local manufacturers and research institutions.

The strategy draws on:

- a worldwide **network** of key account managers (see p. 69), competence centres and integration centres;

- a **balanced management approach** between worldwide and country activities: worldwide activities are organised in business lines covering a coherent range of products, solutions and services; countries implement all aspects of Group policy, manage relationships with local customers and partners, and share responsibility for offers and local projects with worldwide activities.

Thales presence worldwide



## Civil and Defence: a Balanced Approach

“ We want to maintain the balance between civil and defence businesses, because they are complementary in terms of cycles and margins but also draw on the same platform of technologies. This dual role is a real strength for Thales and one of the keys to the resiliency of our business model.”

**Patrice Caine**  
Thales Chairman & CEO



Business in the **civil sector** currently accounts for **half of company-wide sales**, a balance that Thales seeks to maintain; structurally, the outlook for long-term growth in the civil sector is stronger, while the defence sector has nonetheless seen an upturn in demand over the last two years. The **civil** and **defence** markets are also **complementary** in terms of **activities** and **cycles**. Defence programmes have long, slow cycles and many constraints, such as export controls, but research and

development is funded and supported. In civil markets, cycles are faster and there are fewer constraints, but you have to finance your own R&D.

Given the ever-increasing interplay and crossover between the civil and defence sectors in areas such as cyberdefence, avionics, big data and space, **Thales’s dual expertise** continues to constitute a key **competitive advantage** in these markets.

**Expertise** in military technologies grants Thales a key competitive edge over its major competitors with presence in civil markets only. In the area of critical infrastructure protection, for example, Thales offers **advanced solutions** that include equipment and technologies from the world of defence (UAVs, radars, long-range cameras, etc.). Likewise, this cross-pollination at Thales is a key **driver of innovation** in avionics technologies for civil, defence and space solutions.

## Strategic Shareholders

Joint shareholding between the French state and Dassault Aviation (see p. 28) grants enhanced stability to Thales.

**Thales** is the **only French company** in which the French state owns a **share with special rights** (golden share), an arrangement that has been in place since the Company was privatised in 1998. Since 2009, two agreements between the “Public Sector” and the “Industrial Partner” (Dassault Aviation) have governed how the Company is run and **protect national interests** (operations of strategic importance for national defence).

Finally, the **employee shareholder** opportunities available since privatisation have been an **important motivating force** for personnel while also enhancing transparency. Long before it became a legal requirement, Thales was one of the first major companies in France to have a representative of employee shareholders on its Board of Directors.

As of 31 December 2016, Thales’s **25,000 employee-shareholders** own 2.7% of the Company’s share capital and hold 3.3% of voting rights.

### ▶ TO FIND OUT MORE

[www.economie.gouv.fr/agence-participations-etat/Les-participations-publiques](http://www.economie.gouv.fr/agence-participations-etat/Les-participations-publiques)





# GOVERNANCE AND ORGANISATION

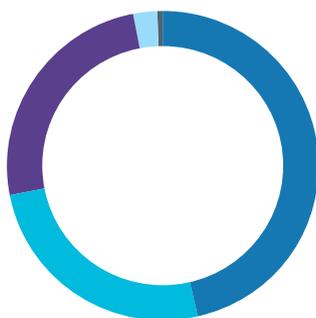
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# OWNERSHIP STRUCTURE AND CORPORATE GOVERNANCE

## Shareholder Structure

BREAKDOWN OF SHAREHOLDERS (in %)



**46.4%**  
Individual and institutional shareholders

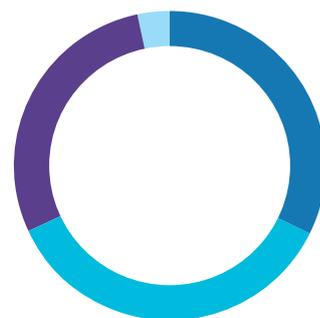
**25.8%**  
Public Sector (a)

**24.8%**  
Dassault Aviation

**2.7%**  
Employees (b)

**0.3%**  
Treasury stock

BREAKDOWN OF EXERCISABLE VOTING RIGHTS (in %)



**32.3%**  
Individual and institutional shareholders

**35.9%**  
Public Sector

**28.5%**  
Dassault Aviation

**3.3%**  
Employees

**3 AGREEMENTS SET OUT HOW THALES IS GOVERNED:**  
THE SHAREHOLDERS' AGREEMENT, THE AGREEMENT ON THE PROTECTION OF STRATEGIC NATIONAL INTERESTS AND THE SPECIFIC AGREEMENT.

**Principal provisions**

- > Definition of corporate governance and composition of Thales corporate governing bodies;
- > Veto right and commitments of Dassault Aviation to the Public Sector;
- > Restrictions concerning the transfer or disposal of 'strategic interests';
- > A shareholders' agreement valid until December 2021, tacitly renewed in 2016 for a period of 5 years.

(a) Directly and indirectly through TSA, a company wholly owned by the French state.  
 (b) Shares owned by employees through a company savings plan or company investment fund.

## Experienced and Representative Board of Directors

As of 31 December 2016, the Thales Board of Directors comprised **16 Directors**, of whom 14 were appointed by the General Meeting of Shareholders and two were appointed by the trade unions. The length of directors' terms is four years.

Of the 14 seats on the Board filled by the Annual Shareholders' Meeting, **four** are occupied by 'independent directors'

appointed by the Board in accordance with the AFEP-MEDEF code of corporate governance. As of 31 December 2016, these four independent directors (Ms. Guylaine Dyèvre, Ms. Anne-Claire Taittinger, Ms. Ann Taylor and Mr. Yannick d'Escatha) account for **31% of Board members** (excluding employees and the employee representative, as stipulated by the AFEP-MEDEF code), a proportion slightly less than the one-third

recommended by the code for controlled companies.

In 2016, the **Board of Directors met 10 times**, with an attendance rate of 93%. The **statutory auditors** are invited to **attend Board meetings** held to approve the annual and interim financial statements, and may be invited to other Board meetings when dictated by the agenda.

### Board of Directors (as of 31 December 2016)

#### DIRECTORS APPOINTED BY THE GENERAL MEETING OF SHAREHOLDERS:

**Patrice Caine**  
Chairman and Chief Executive Officer

**Laurence Broseta**  
Chief Executive Officer France, Transdev

**Laurent Collet-Billon**  
Special Armaments Engineer

**Guylaine Dyèvre**  
Independent director  
Head of compliance for the finance and investment division at BNP Paribas

**Charles Edelstenne**  
Chief Executive Officer of Groupe Industriel Marcel Dassault  
Chairman of the Board of Directors of Dassault Systèmes

**Yannick d'Escatha**  
Independent director  
Former President of the French space agency (CNES), advisor to the Chairman of EDF

**Delphine Gény-Stephann**  
Vice-President, Corporate Planning & Strategy at Saint-Gobain

**Philippe Lépinay**  
Director representing employee shareholders  
Vice President, International Relations at Thales

**Loïk Segalen**  
Chief Operating Officer of Dassault Aviation

**Anne-Claire Taittinger**  
Independent director

**Ann Taylor**  
Independent director  
Member of the House of Lords

**Éric Trappier**  
Chief Executive Officer of Dassault Aviation

**Martin Vial**  
Commissioner for Government Shareholdings  
Chief Executive Officer of the French Government Shareholdings Agency (Agence des Participations de l'Etat)

**Marie-Françoise Walbaum**  
Non-executive director on the boards of several companies

#### DIRECTORS ELECTED BY EMPLOYEES:

**Anne-Marie Hunot-Schmit**  
In charge of financial controlling for bids and projects within the Ground Transportation Business Unit at Thales

**Frédérique Saint**  
Technical expert with the "In-Orbit Operations" division of Thales Alenia Space

**NB :** Details on the careers and positions held by all directors can be found on p. 122 and following of the 2016 registration document.

**16**  
Directors

  
Women **50%** Men **50%**

  
**10**  
meetings per year

  
**93%**  
attendance rate

# 3

## committees

### BOARD COMMITTEES

The Board of Directors, at its meeting on 27 February 2017, decided to add corporate social responsibility to the duties of the Strategic Committee.

#### THE STRATEGIC AND CORPORATE SOCIAL RESPONSIBILITY COMMITTEE

**Patrice Caine,**  
Chair, Chairman & CEO

#### MISSIONS

##### Consider:

- The Group's strategic approach in each of its major fields of operation, including Corporate Social Responsibility (CSR) as recommended by the AFEP-MEDEF code, prior to submission to the Board of Directors;
- The framework for submitting the budget and the three-year rolling plan to the Board, and examine the proposed annual budget in the context of this plan;
- Major acquisitions and asset disposal plans (in excess of €150m), as well as proposed strategic agreements or partnerships.



**4 MEETINGS** in 2016  
with an attendance rate  
of **100%**

#### AUDIT AND ACCOUNTS COMMITTEE

**Anne-Claire Taittinger,**  
Chair, independent director

#### MISSIONS

##### Monitor:

- Process for preparing financial information. Includes formulation of recommendations, where applicable, to ensure the integrity of this process;
- Efficacy of internal control and risk management systems, as well as internal audits, where applicable;
- Procedure for the selection of statutory auditors. Includes issuance of a recommendation on the proposed statutory auditors for appointment by the General Meeting of Shareholders, including in cases of renewed appointments;
- Performance of statutory auditors' mission, taking into account observations and conclusions of the French auditing control board (*Haut Conseil du Commissariat aux Comptes*) subsequent to audits performed;
- Independence of statutory auditors. Includes granting approval for the delivery of statutory auditors' services falling outside the certification of Thales group accounts and the accounts of companies directly or indirectly controlled by Thales.

##### Consult the statutory auditors on the following:

- Their general programme of work as well as the various sample tests they have performed;
- Changes that they believe should be made to the financial statements to be published or to other accounting documents, making any relevant comments on the assessment methods used in their preparation;
- Any irregularities or inaccuracies that they may have identified;
- Conclusions arising from the aforementioned comments and adjustments to the profits for the period compared with those of the previous period;
- Any risks to their independence and all safeguards applied to mitigate such risks;
- Significant internal control weaknesses they may have identified, as regards procedures relating to the preparation and processing of accounting and financial information.



**5 MEETINGS** in 2016  
with an attendance rate  
of **100%**

#### GOVERNANCE AND REMUNERATION COMMITTEE

**Yannick d'Escatha,**  
Chair, independent director

#### MISSIONS

##### Review:

- Compensation policy for the Company's senior executives;
- Compensation of the Chairman & CEO and any related-party commitment concerning him, compensation of directors (attendance fees) and of other Company representatives, where applicable;
- Proposed long-term incentive (LTI) plans, which are subject to Board approval;
- Proposed employee share ownership schemes;
- Proposed candidates for external director positions, regarding which the two main shareholders will have held consultations in accordance with the provisions of the shareholders' agreement;
- The independence of directors (at least once a year);
- And in general, any issues relating to application of the AFEP-MEDEF Corporate Governance Code for Listed Companies.



**6 MEETINGS** in 2016  
with an attendance rate  
of **96%**

## Equal Representation on the Board of Directors

The **objectives** set by French law no. 2011-103 of 27 January 2011 on gender balance on corporate Boards of Directors and the monitoring of professional equality (40% of directors appointed at the General Meeting

must be women) were achieved on 29 November 2016 (6 women out of 14 directors, or 42.8%).

This situation has remained unchanged since 31 December 2016. If the two employee representatives appointed in

December 2016 by the trade unions are included, the **percentage of women serving on the Board of Directors stands at 50%** (8 out of 16 Directors).

## Employee Share Ownership: an Integral Part of Corporate Governance

Since privatisation in 1998, Thales has offered eight **employee shareholder** opportunities. The latest offer was in October 2015. As of 31 December 2016, employees owned **2.7%** of the Company's **share capital** and held 3.3% of voting rights.

Employee share ownership is primarily structured through a company investment fund managed by a Supervisory Board, the majority of whose members are elected by employee shareholders or are

representatives of Thales management. Employee shareholders are **represented on the Thales Board of Directors by a director** nominated by the joint Supervisory Board for election by the General Meeting of Shareholders. This director is also a **member of the Strategic and Corporate Social Responsibility Committee** of the Thales Board of Directors.

Long before it became a legal requirement, **Thales was one of the few**

**major companies in France to have a representative of employee shareholders on its Board of Directors.**

**Several shareholder associations** have been formed to help promote employee share ownership in **19 countries** throughout Europe, North America and the Asia-Pacific region. The employee shareholder associations are members of **FAST<sup>(1)</sup>** (Federation of Associations of Staff Shareholders of Thales).



(1) [www.fast-thales.org](http://www.fast-thales.org)

## Corporate Management

The **Executive Committee**, comprising the main operational and functional managers, is responsible for **general management** of the Company and the Group, under the authority of the Chairman and Chief Executive Officer.

### Executive Committee (as of 1 March 2017)

Thales's **13-member** Executive Committee is responsible for Group governance.

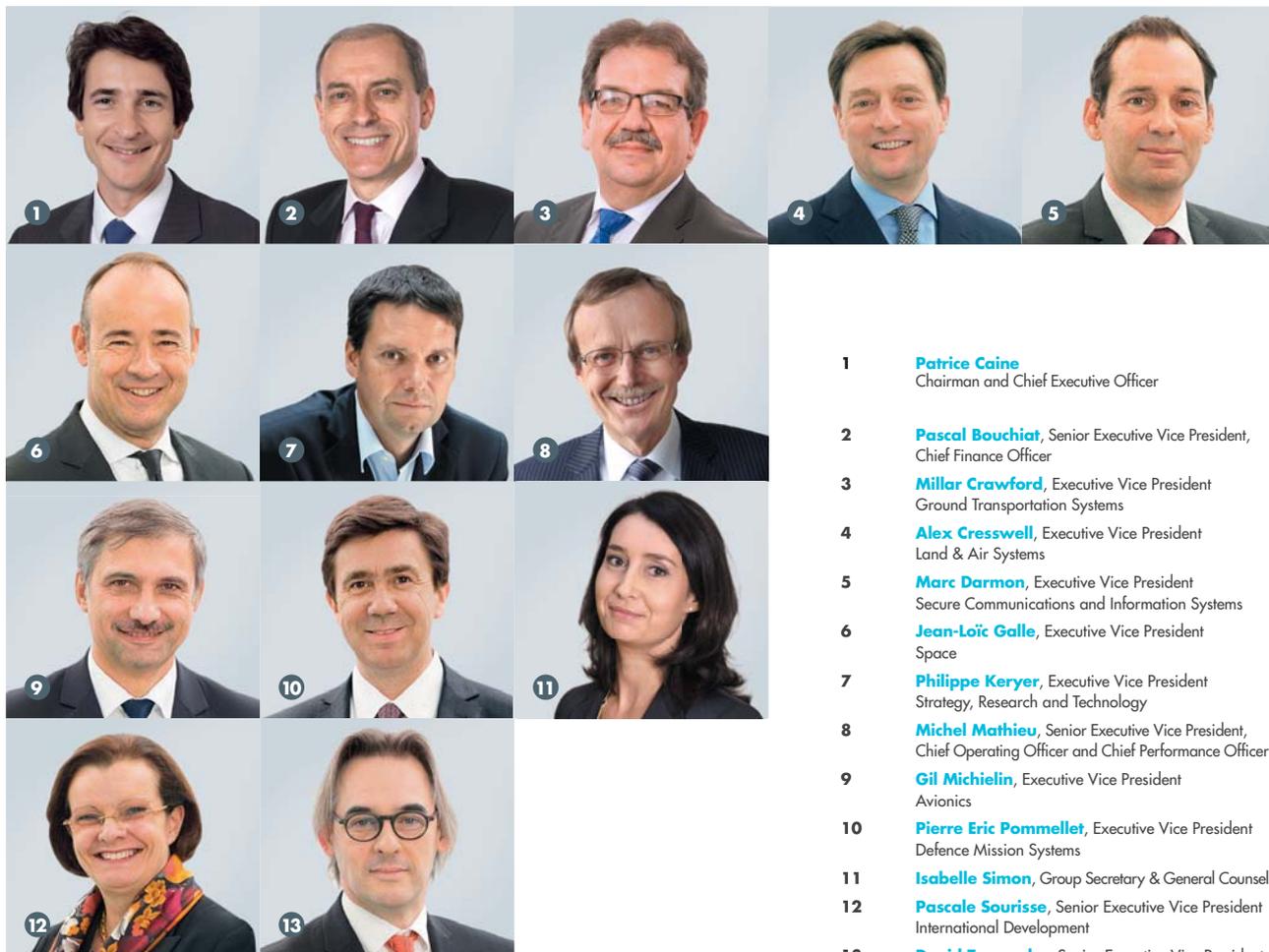
It **meets every two weeks and implements strategic decisions** in accordance with the strategic objectives defined by the Board of Directors.

### COMPENSATION POLICY FOR THE CHAIRMAN & CEO

In response to requests from shareholders who were unhappy with the exclusively short-term compensation structure for the Chairman & CEO, the Board of Directors decided on 27 February 2017, on the recommendation of the Governance & Remuneration Committee, to update the structure and level of compensation payable to the Chairman & CEO for 2017:

- by revising the annual levels of fixed and variable compensation payable; and
- by recalibrating the compensation structure with the establishment of a Long Term Incentive Plan (LTIP) linked to the value of the Thales share in particular.

Pursuant to Article L.225-37-2 of the Commercial Code, this proposal is subject to approval by the General Meeting of Shareholders on 17 May 2017. A table summarising the components of the Chairman & CEO's compensation package for 2016 is provided to shareholders in the meeting documents (see Section 3.5.1.2, p. 150 and following of the 2016 registration document).



- 1 **Patrice Caine**, Chairman and Chief Executive Officer
- 2 **Pascal Bouchiat**, Senior Executive Vice President, Chief Finance Officer
- 3 **Millar Crawford**, Executive Vice President Ground Transportation Systems
- 4 **Alex Cresswell**, Executive Vice President Land & Air Systems
- 5 **Marc Darmon**, Executive Vice President Secure Communications and Information Systems
- 6 **Jean-Loïc Galle**, Executive Vice President Space
- 7 **Philippe Keryer**, Executive Vice President Strategy, Research and Technology
- 8 **Michel Mathieu**, Senior Executive Vice President, Chief Operating Officer and Chief Performance Officer
- 9 **Gil Michielin**, Executive Vice President Avionics
- 10 **Pierre Eric Pommellet**, Executive Vice President Defence Mission Systems
- 11 **Isabelle Simon**, Group Secretary & General Counsel
- 12 **Pascale Sourisse**, Senior Executive Vice President International Development
- 13 **David Tournadre**, Senior Executive Vice President Human Resources

# MANAGEMENT PRINCIPLES

## A Comprehensive Risk Management System

Thales develops and delivers complex systems, products, equipment and related services for governments as well as major companies and organisations around the world. The nature of these solutions, which are often critical for state sovereignty and/or the security of people, property and data, requires a **coherent, integrated and comprehensive risk management system**.

In terms of national standards and legislation, Thales has had an organisation in place for many years to **ensure compliance** of its business activities with all applicable laws and regulations. In accordance with the COSO (Committee of Sponsoring Organizations of the Treadway Commission) internal control reference framework, Thales also incorporates operational, strategic, compliance-related and financial risks into its risk management system.

The system, part of a **comprehensive approach to risk management** at Thales, draws from the following:

- a **Risk Management Committee**, chaired by the Chairman & CEO, responsible for defining the level of risk deemed acceptable by the Group, allocating risk management

and control responsibilities, and more generally, ensuring that the risk assessment and management system is as comprehensive as possible in order to maximise risk mitigation. It is supported by the work of the Risk Assessment Committee. The committee met once in 2016;

- a **Risk Assessment Committee**, chaired by the Senior Vice President Audit, Risks & Internal Control, responsible for analysing risks and evolving threats, updating and prioritising risk scenarios, ensuring that responsibility for each risk scenario is allocated within the Group, and formulating recommendations for the Risk Management Committee, with a view to improving the overall management and mitigation of Group risks. In 2016, the Risk Assessment Committee met six times;
- a **management of insurable risks policy**, established and managed by the Insurance and Risk Management Department;
- an **internal reference system**, Chorus 2.0, available in four languages and accessible to all Group employees, which defines 26 business processes that structure all of Thales's operational and functional activities.

### RISK FACTORS APPLIED TO INDEPENDENT, MEASURABLE RISK SCENARIOS

Responsibility for risk scenarios is divided among the three main elements of Thales's governance structure:

- the **118 stand-alone entities (SAEs)** hold primary responsibility for risk scenarios relating to compliance with legislation, regulations and internal processes (Chorus 2.0);
- the **six Global Business Units (GBUs)** and their **24 Business Lines (BLs)** hold primary responsibility for risk scenarios relating to major bids and projects, product policy, and business strategy;
- the **six Corporate functional departments** hold primary responsibility for risk scenarios relating to governance or organisation, as well as Group-level risks (cash flow, foreign exchange, insurance, etc.).

### ➤ TO FIND OUT MORE

All identified risks and the actions and measures implemented by Thales to counter these risks if they materialise can be found in Section 1.1.2 "Risk Factors" on p. 14 and following of the 2016 registration document.

➤ An **internal control regime** designed to provide reasonable assurances that the Group's objectives will be achieved, specifically demonstrating:

- the effectiveness and efficiency of the internal processes in place,
- the ability of the internal accounting and financial controls in place to ensure the reliability of information distributed and used internally for management and monitoring purposes, to the extent that this information contributes to accounting and financial disclosures,
- compliance with regulatory requirements.

This system is based on the following:

- first, **two annual self-assessment questionnaires**: the Yearly Attestation Letter addressed to the directors of each Thales stand-alone entity (114 questionnaires completed in 2016) and the Internal Control Questionnaire (ICQ) completed by the financial management teams of all entities (stand-alone and other), focused on the reliability of financial and accounting data (130 questionnaires completed in 2016),
- second, **audits** of these self-assessment exercises, carried out

on a rotational basis by Thales's Audit, Risks and Internal Control Department (DARCI),

DARCI conducts an extensive programme of audits and consultancy visits each year. The audit plan is updated on a half-yearly basis and draws from risk analysis as well as current issues (bids and projects, product policy, supply chain, etc.) in respect of which specific risk factors have been identified. Specific corruption prevention, export control and Business Continuity Management audits are also conducted (see text box).

The overall aims of this risk management system are as follow:

- protect Thales employees in their professional capacities,
- create and preserve the value, assets and reputation of the Group,
- ensure the resilience of Thales and its businesses,
- secure the Group's decision-making and processes to help it achieve its objectives,
- promote the consistency of action with the values of the Group,
- involve the Group's employees in a shared vision of the main risks and make them aware of the risks inherent in their work.

In 2016, **73 audits** or advisory tasks, arising from the Group's risk analysis and planned according to the criteria set out and approved by the Audit and Accounts Committee, were conducted by teams from the Audit, Risks & Internal Control Department. These tasks focused on the following themes:

- operations: bids and projects, product policy, engineering and industry;
- compliance: ethics, export control, security of information systems, business continuity plans;
- governance: organisation, shared services, joint ventures, monitoring of acquisition and divestment transactions;
- internal control: auditing the accuracy of risk management and internal control questionnaires (yearly attestation letter, internal control questionnaire).



**IFACI CERTIFICATION**

IFACI<sup>(1)</sup> issues its certification as a quality label to help improve internal audit systems and disseminate best practices in France.

IFACI certification, officially recognised and promoted by the Institute of Internal Auditors (IIA) and the European Confederation of Institutes of Internal Auditing (ECIIA), provides corporate management with assurance that the internal audit function, a key component of the organisation's internal control system, is performing in line with international best practice.

Since 2006, the Audit, Risks & Internal Control Department has been certified by IFACI, which ensures that its practices comply with the international standards of the profession. This professional certification was most recently renewed, outside the usual scope, in March 2016 for a 3-year period. In March 2017, IFACI's annual follow-up audit assigned DARCI a score of 97% compliance with the 100 requirements of the IFACI reference framework.

(1) IFACI: Institut Français de l'Audit et du Contrôle Interne (French Institute of Audit and Internal Control).

## Corporate Responsibility: a Strategic Choice, Driver of Innovation and Key to Business Success

To meet the expectations of its shareholders, Thales has put in place a **stringent, proactive policy of social responsibility**, and attaches the utmost importance to **ethical business practices**. Begun in the early 2000s, this approach, which underpins everything that Thales does, applies with respect to customers, suppliers, employees, shareholders, financial markets, civil society and the environment.

Since 2003, **Thales** has been a member of the **United Nations Global Compact**. It defends the Global Compact's **10 universal principles** in its sphere of influence, and has integrated them into its strategy. In 2016, Thales reached the **Global Compact Advanced** level for the fifth year in a row.<sup>(1)</sup> This ranking demonstrates Thales's compliance with the United Nations Global Compact Differentiation Programme, which evaluates companies on the basis

“ Acting with integrity is clearly of capital importance, but acting transparently is just as vital. Our policy of corporate responsibility is a key feature of the Thales brand; it helps us create value for customers and earn the trust of all our stakeholders<sup>(2)</sup>. ”

**Patrice Caine**  
Thales Chairman & CEO

of 21 specific criteria and represents the highest standard of sustainability performance and reporting.

Thales's corporate responsibility policy focuses extensively on sustainable and responsible business conduct (prevention of corruption, and strict control of exports of defence or dual-use equipment). This commitment can also be seen in the

materiality grid (see p. 45) that Thales has set up to identify these issues as high-priority or major challenges.

The Code of Ethics, which outlines the general rules and values promoted at Thales, forms the basis of the Company's culture of integrity (see p. 37). It was updated in 2015 and personally sent to each Thales employee.



Ethical business practices are a crucial factor in protecting the Group's interests and promoting a positive corporate image. They are also a key differentiator and driver of competitive performance. For Thales, ethical business practices are based on a set of simple core principles: compliance with laws and Group directives, professionalism, rigour and integrity.

(1) [www.cop-advanced.org](http://www.cop-advanced.org)

(2) Excerpt from the Thales Code of Ethics.

**Ethics, integrity and responsible business conduct: an assertive approach**

Since the early 2000s, Thales management has consistently reaffirmed the principle of “zero tolerance” for all forms of bribery and corruption, including active and passive corruption, direct and indirect bribery, and corruption involving both public officials and private parties.

In spite of international conventions, corruption is still endemic in many countries today, and is thus one of the

risks that companies that export or have significant operations overseas must incorporate into their management methods and development strategies.

Thales is thus especially vigilant about corruption, a key consideration in the comprehensive risk management system that the Company has implemented worldwide (see p. 33).

The **corruption risk prevention programme**<sup>(1)</sup>, for example, is regularly assessed and adjusted to reflect changes in the external and internal risk landscapes. The programme was **certified**

by Mazars and by ADIT<sup>(2)</sup> in July 2014. The approach at Thales is to analyse, assess and understand these risks in order to then implement appropriate measures to counter them.

Thales is also closely consulting recent changes in legislation (the French law on transparency, the fight against corruption and the modernisation of the economy, known as the Sapin II law) and regulations (ISO standard 37001 “Anti-bribery management systems”) in order to identify new opportunities for improvement measures in 2017.

**TO FIND OUT MORE**

See the Reference Guide Business Ethics / Prevention of Corruption, which can be downloaded from [www.thalesgroup.com](http://www.thalesgroup.com), “Commitments/Key corporate responsibility documents” section.



(1) The corruption risk prevention programme can be downloaded from [sustainability.thalesgroup.com](http://sustainability.thalesgroup.com) (Key Corporate Responsibility Documents heading).  
 (2) ADIT is the European leader in strategic intelligence – [www.adit.fr](http://www.adit.fr).

This worldwide corruption risk prevention programme is based on:

- an international structure and dedicated resources tasked with implementing the business programme;
- the integration of provisions relating to corruption risk prevention into the Company's operational processes;
- the internal ethics alert facility available to employees;

- a robust internal control and audit system;
- information, awareness and training programmes for the Group's employees.

For two years now, Thales's corruption risk prevention programme has been recognised by many important stakeholders. Thales's listing on the **DJSI** (Dow Jones Sustainability Index)

Europe and World was confirmed for the second year in a row in 2016. The Group is also **one of the four leading European companies** in Transparency International's "Anti-Corruption Index" covering companies in the defence sector (latest ranking in 2015).

### ETHICS GUIDELINES

Thales's ethics policy is based on individual responsibility. To support this policy, the Group pursues a comprehensive employee information, awareness and training programme, reflecting its commitment to go beyond compliance and establish ethics and responsibility as a shared corporate value. Every employee is required to act fairly and responsibly at all times and seek advice from colleagues without hesitation when necessary.

In addition to the Code of Ethics, several guides are posted for employees on the Group intranet. The guides can also be downloaded from Thales's website:

[www.thalesgroup.com/en/group/key-corporate-responsibility-documents](http://www.thalesgroup.com/en/group/key-corporate-responsibility-documents)



### Code of Ethics

Reflecting Thales's core values, the Code of Ethics lays down the rules of behaviour applicable within the Group, with respect to customers, suppliers, employees, shareholders, financial markets, the environment and society at large. The rules stipulated in this Code are not a substitute for the national and international legislation applicable in each country, with which the Group fully complies. They must, however, be understood and applied by all permanent and temporary staff. The Code of Ethics was updated and personally sent to each Thales employee in 2015.

\* French, English, German, Italian, Spanish, Dutch, Polish and Portuguese.

### Business Ethics Conduct Guides

#### Prevention of corruption



Provides a concise, straightforward explanation of the challenges involved in preventing corruption, while also proposing strategies and recommended practical solutions to the various complex situations that Thales employees encounter in their day-to-day work.

#### Conflict of interest



Provides a set of specific guidelines on conflicts of interest to ensure that all involved know how to respond appropriately and act with integrity in such circumstances, in line with the principles laid out in the Code of Ethics.

#### Best practices to lobbying



Designed to enable employees to assess the risks associated with any lobbying activities and to help them respond appropriately and make the right choices.

#### Gifts and hospitality



Applicable to all companies controlled by the Thales group, this guide includes decision support tools such as a description of the 4Rs Rule (Regulations, Reasonable, Responsible, Record) that Thales applies to gifts and hospitality. Supplements to the guide cover national legislation, case law, tax requirements and country-specific cultural considerations in various countries (France, Germany, Hong Kong, Spain, the United Kingdom, etc.).

#### Also available

User Guide on Ethics Alert, Best Practices in Information Management, Best Practice Guidelines for using e-mail.

## Driving industry-wide initiatives at the international level

Thales's involvement in professional, inter-governmental and non-governmental organisations is also one of the key aspects of its policy of anti-corruption and of the sharing and circulation of best practices.

Thales also **actively participates in national<sup>(1)</sup> and international<sup>(2)</sup> professional organisations** dealing with business ethics, and has an active presence within the working groups of inter-governmental organisations (OECD, United Nations, etc.).

Thales's contributions to the International Forum on Business Ethical Conduct (IFBEC), the joint body of the AeroSpace and Defence Industries Association of Europe (ASD) and the Aerospace Industries Association of America (AIA) led to a draft proposal for a model Code of Conduct for suppliers, as well as an analysis of anti-corruption practices in terms of offsets that could be a first step towards establishing standards of integrity for this type of transaction.

## An ethics policy with a solid organisational foundation

Confirming the **central role** played by **ethics and corporate responsibility** in the Group's strategy, Thales created an **Ethics & Corporate Responsibility Committee** in 2001. It serves as a channel for communicating the expectations of the Group's main stakeholders, through the Company representatives in constant contact with them (Sales Department for customers, Human Resources Department for employees, Investor Relations Department, Communications Department for media, etc.).

The missions of the committee fall into **three categories**:

- contributing to determining Thales's policy on Ethics and Corporate Responsibility; providing guidance on standards and procedures relating to trade, environmental, employment and social issues;
- ensuring the development of the Code of Ethics and its implementation within the Company; defining training objectives and appropriate communications; coordinating and monitoring the Country Ethics Committees and Ethics Officers;
- addressing the ethical issues that are submitted to it; conducting, where required, any relevant investigations and proposing possible actions/appropriate sanctions to management. The Ethics & Corporate Responsibility Committee is chaired by Thales's Group Secretary and General Counsel.

The **Ethics & Corporate Responsibility Department** implements the policy defined by the committee. It **contributes to changing behaviour** within the Group – defining and deploying best practices – and sets the internal standards and processes for ethical business conduct, and more specifically in terms of **anti-corruption**, working closely and in a cross-functional manner with all the Group departments. It is also responsible for **preventing infringements of the Code**.

**Ethics officers** ensure that the Code of Ethics and its principles are disseminated throughout all the Group's units. Their role consists of **overseeing staff training** and **awareness-raising**, responding to questions concerning the application of the code, and adjusting the Group's ethics policy to local customs and legislation.

In order to reinforce Thales's approach to Ethics & Corporate Responsibility, and to ensure that **each employee is involved** in the prevention of risks, an **ethics alert facility** authorised by CNIL<sup>(3)</sup> is available to all the Group's employees.

This system enables them:

- to obtain information and advice, in the event of questions or doubts, regarding the application or interpretation of the rules of the Code of Ethics;
- to report acts in the areas of accounting, finance or banking as well as anti-competitive practices and anti-corruption;
- to report acts of discrimination, harassment or serious acts relating to failure to comply with health legislation that endanger the physical or mental health of employees and may seriously impact the Group's business or incur significant liability.

A user guide is available to employees to facilitate the use of this tool.

### ➤ TO FIND OUT MORE

Section 5.3.4.1 "Anti-corruption" of the 2016 registration document (p. 218)

(1) MEDEF, GIFAS, etc.

(2) ASD (AeroSpace and Defence Industries Association of Europe), ICC (International Chamber of Commerce), B20 (international affairs community of 22 business organisations), IFBEC (International Forum on Business Ethical Conduct).

(3) French data protection authority.

## Export Control: Strict Compliance with Regulations



### Highly regulated

In 2016, defence and security business accounted for half of Thales's revenues. The Group manufactures defence and civil products and systems in democratic countries with strong governance and strict control over manufacturing processes and technologies.

As signatories of international laws and conventions regulating the production, sale, export, re-export and import of defence or "dual-use" components, equipment and technologies, these countries impose strict anti-corruption and export control laws on all companies, particularly those in the defence sector.

Many of Thales's business activities are subject to **strict compliance with export regulations** in various countries. Failure to comply could lead, at the very least, to damaging delays in deliveries, frequently accompanied by financial penalties, and in the most serious cases a range of severe sanctions such as prohibitively large fines, prison sentences for Company directors,

or even a temporary or permanent ban on imports or exports, or embargo.

In addition, a significant proportion of Thales's products and solutions rely on items that are bought from outside suppliers. The Group therefore takes steps to ensure that it remains constantly aware of the export constraints on purchased items, particularly those from the United States, where the Group purchases well over €1bn of goods annually that may be subject to extra-territorial export control regulations.

### A rigorous internal regime

Strict compliance with **export control** regimes is critical to Thales's continued success and the preservation of the Group's corporate assets. Export control violations, like corruption, have been identified in Thales's global risk management system as one of the major risks facing the Company (see p. 33).

Thales has introduced **systems and formal procedures** to ensure **compliance** with applicable regulations and controls, and reinforces these measures through awareness-raising programmes with dedicated e-learning modules and alerts on legislative and regulatory changes relating to export control that are relevant to Thales's business.

Operating units have access to a network of specialists who are responsible for monitoring the application within operating units of compliance rules decided at Group level as well as monitoring the necessary authorisations and ensuring compliance in implementation.

This strong commitment is intended to **protect the national security** of democratic States and specifically to contribute to the fight against the spread of weapons of mass destruction. Accordingly, Thales and other European aerospace and defence companies support the **United Nations Arms Trade Treaty**, which came into force in late 2014.



# CHALLENGES

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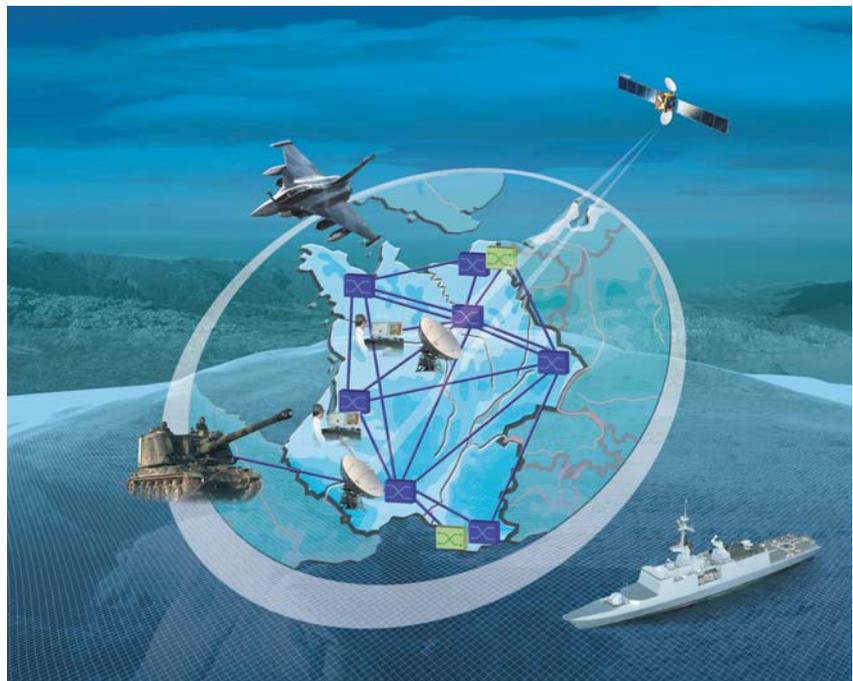
# AN INCREASINGLY MOBILE, INTERCONNECTED AND INTERDEPENDENT WORLD

In a world that is increasingly mobile, interconnected and interdependent, the security of people and goods, infrastructure and nations depends on leaders and organisations and their ability to decide and act in a timely fashion.

Navy, army and air force commanders, as well as air traffic controllers, policymakers and infrastructure operators, face these critical decisions and need full, relevant and reliable information to understand the situation and make the right choices. **Thales** assists customers in making these decisions by providing the **tools and technologies** they need to **gather, process and distribute information, helping them to understand complex situations** so they can **decide** and act in a timely fashion and **obtain the best outcomes**.

By the very nature of its businesses, Thales is engaged in the societal, environmental and economic challenges of our times. The **technological excellence** and **engineering expertise** that the Company has cultivated for more than a century, mainly to serve the

armed forces, now play a **crucial role in keeping our homelands secure and our civilian populations safe**. With its strategic positioning in the defence and security continuum, Thales has a unique responsibility to its stakeholders and to society at large.



# CONTINUOUS DIALOGUE

## Listening to the World Around us

Thales teams strive to stay in constant contact with the organisations that make up its ecosystem, **identifying the key stakeholders** and deploying a structured policy of dialogue and interaction based on:

- > their **role as influencers**: the capacity of the stakeholder to influence and impact Thales decisions;
- > the **level of engagement** that the Group hopes to develop with them.

For each stakeholder, dialogue is organised as a function of these factors

by identifying the most effective channels of communication and establishing how to interact at the most appropriate level of the organisation (headquarters, business units, sites) in accordance with the subsidiarity principle. This approach has been adopted because of the Group’s organisation, size, and international scope as well as the diversity of its business lines.

To manage this process and **improve feedback** about the expectations of

internal and external stakeholders, while also **making sure that these expectations are optimally aligned** with Thales’s long-term objectives, groups of stakeholders are defined for each key challenge.

**For many years**, a climate of trust and **constructive dialogue** has been established between Thales and its principal stakeholders, who are also represented on the Group’s Ethics and Corporate Responsibility Committee (see p. 38).

### DIFFERENT MODES OF DIALOGUE

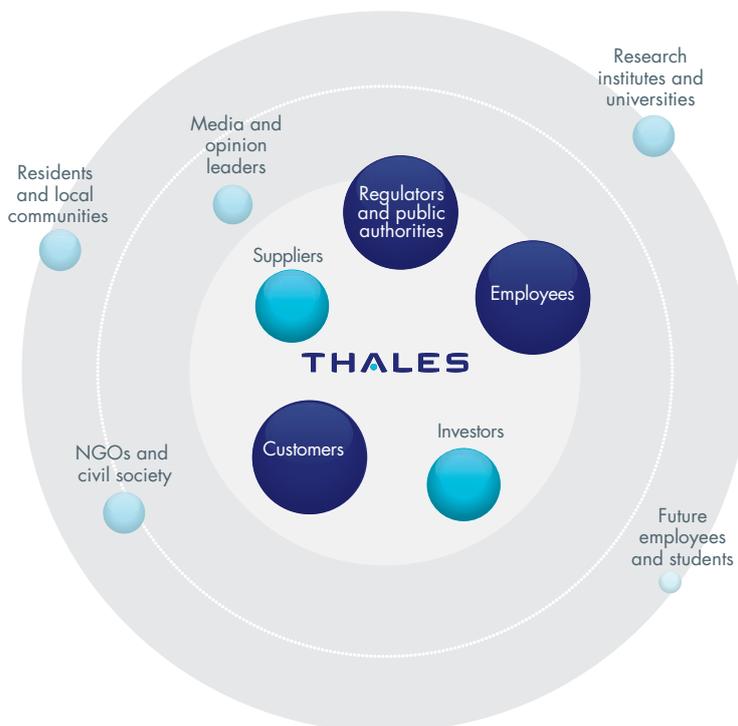
Listening to stakeholders is a major part of Thales’s corporate responsibility strategy. In particular, stakeholders’ expectations were taken into account when prioritising challenges as part of the materiality assessment (see p. 45).

There are many channels of communication that can be selected to meet the needs of each stakeholder. For the sake of clarity, the various strategies have been grouped into four categories:

- > monitoring/information;
- > communication;
- > engagement;
- > partnership.

These four modes of dialogue can be adapted to each organisation. For example, Thales may enter into a partnership with one NGO, but only provide information to another. The purpose of the categories is simply to guide the Group’s approach, not to restrict it.

### Thales stakeholders



## Achieving Constructive Dialogue

Stakeholders	Main stakeholder expectations from Thales	Current modes of dialogue
<b>Customers</b>	<ul style="list-style-type: none"> <li>➤ Performance and tailoring of products and services</li> <li>➤ Innovation and competitiveness</li> <li>➤ Compliance with contract stipulations: budget, deadlines, response to requirements</li> <li>➤ Compliance with regulations</li> <li>➤ Thales corporate responsibility</li> </ul>	<ul style="list-style-type: none"> <li>➤ Partnership: help define needs, regular dialogue through Key Account Managers, etc.</li> <li>➤ Annual surveys</li> </ul>
<b>Investors/Banking institutions</b> Ratings agencies Institutional investors Individual shareholders	<ul style="list-style-type: none"> <li>➤ Customer trust</li> <li>➤ Sustainability of the business model</li> <li>➤ Business ethics</li> <li>➤ Good governance</li> <li>➤ Compensation policies</li> <li>➤ CSR performance (HSE, diversity, employee relations dialogue, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>➤ Specific presentations for institutional investors during roadshows.</li> <li>➤ Responses to questionnaires for ratings agencies</li> <li>➤ Regular direct contact</li> </ul>
<b>Employees</b> Employee shareholders (Thales employee shareholders' association) Employee representative bodies	<ul style="list-style-type: none"> <li>➤ Ability to innovate</li> <li>➤ Ethics</li> <li>➤ Attractiveness</li> <li>➤ Career building and professional development opportunities</li> <li>➤ Quality of life at work</li> <li>➤ Corporate responsibility</li> </ul>	<ul style="list-style-type: none"> <li>➤ Regular internal communication with employees, intranet</li> <li>➤ Dialogue with employee representatives</li> <li>➤ Relations with employee shareholders</li> </ul>
<b>Future employees and students</b>	<ul style="list-style-type: none"> <li>➤ Ethics</li> <li>➤ Career development</li> <li>➤ Quality of life in the workplace</li> <li>➤ Ability to innovate</li> </ul>	<ul style="list-style-type: none"> <li>➤ Information on campuses</li> <li>➤ Presence on social media</li> </ul>
<b>Regulators and public authorities</b> States, local authorities, international organisations	<ul style="list-style-type: none"> <li>➤ Compliance with regulations (export control, HSE, quality and safety of products and services)</li> <li>➤ Business ethics</li> <li>➤ Engagement at local level</li> </ul>	<ul style="list-style-type: none"> <li>➤ Dialogue through professional associations</li> <li>➤ Direct meetings</li> <li>➤ Written communication (letters)</li> </ul>
<b>Research institutes and universities</b>	<ul style="list-style-type: none"> <li>➤ Ability to innovate</li> <li>➤ Co-development</li> </ul>	<ul style="list-style-type: none"> <li>➤ Partnership contracts</li> <li>➤ Working groups</li> </ul>
<b>Suppliers</b>	<ul style="list-style-type: none"> <li>➤ Long-term partnerships</li> <li>➤ Corporate responsibility</li> <li>➤ Data security</li> </ul>	<ul style="list-style-type: none"> <li>➤ Negotiations and contractual relations</li> <li>➤ Satisfaction surveys</li> </ul>
<b>Residents and local communities</b>	<ul style="list-style-type: none"> <li>➤ Support for the local economy</li> <li>➤ Harmful effects/risks</li> </ul>	<ul style="list-style-type: none"> <li>➤ Regular dialogue as part of the Group's regional or country-level policy</li> </ul>
<b>NGOs and civil society</b>	<ul style="list-style-type: none"> <li>➤ Business ethics</li> <li>➤ Compliance with export control regulations</li> <li>➤ Transparency</li> <li>➤ Controversial weapons</li> <li>➤ Human rights</li> </ul>	<ul style="list-style-type: none"> <li>➤ Partnership with Transparency International</li> </ul>
<b>Media and opinion leaders</b>	<ul style="list-style-type: none"> <li>➤ Exemplary regulatory compliance because the State is the major shareholder</li> </ul>	<ul style="list-style-type: none"> <li>➤ External communication</li> <li>➤ Interviews on a case-by-case basis</li> </ul>

## Identifying the Primary Expectations of Stakeholders

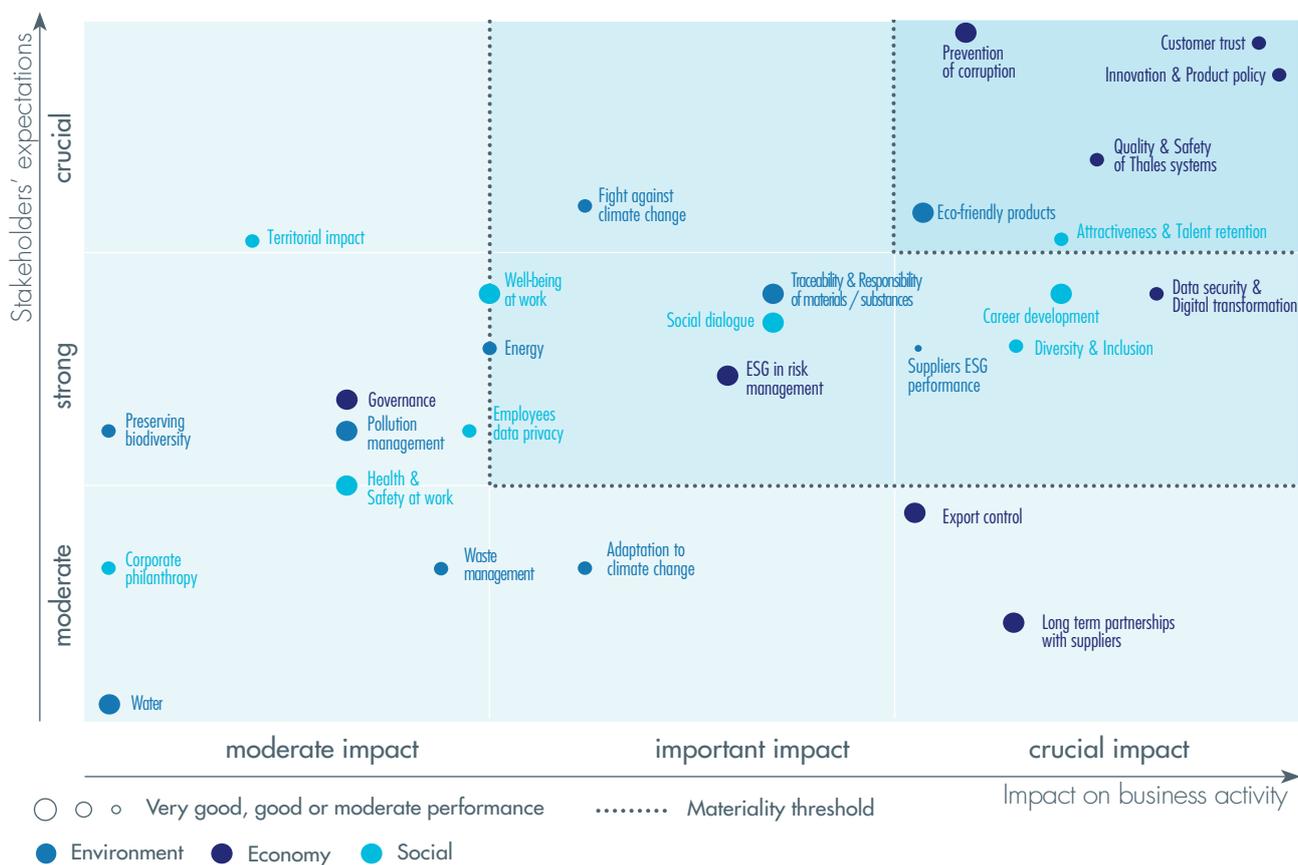
By interacting with shareholders and running special internal workshops, Thales has been able to **identify and classify the Group’s most important environmental, social and economic challenges**, based on:

- shareholder expectations;
- impact on Group activities.

These challenges have been formally categorised using the **materiality matrix** presented below. In addition, in-depth studies have been conducted to determine **Thales’s level of performance** against each of the challenges.

Adding this third aspect to the matrix **allows the Group’s strategy and policies to be further refined**, so that expectations can be **more effectively anticipated**, and opportunities more readily seized.

### Thales materiality matrix



Analysis of the items that appear in the **“priority challenges”** section of the matrix reveals the **convergence between stakeholders’ key expectations and Thales’s strategic vision** (customer value and mindset, customer-driven competitive

innovation, attractiveness and talent retention, excellence in delivery, etc.) (see p. 58 for the Ambition 10 plan). The matrix additionally shows that the **basic principles of Thales’s corporate**

**responsibility policy** – business ethics, risk management, ESG (environment, social and governance) – are also **aligned with stakeholders’ expectations**.

## Priority Challenges

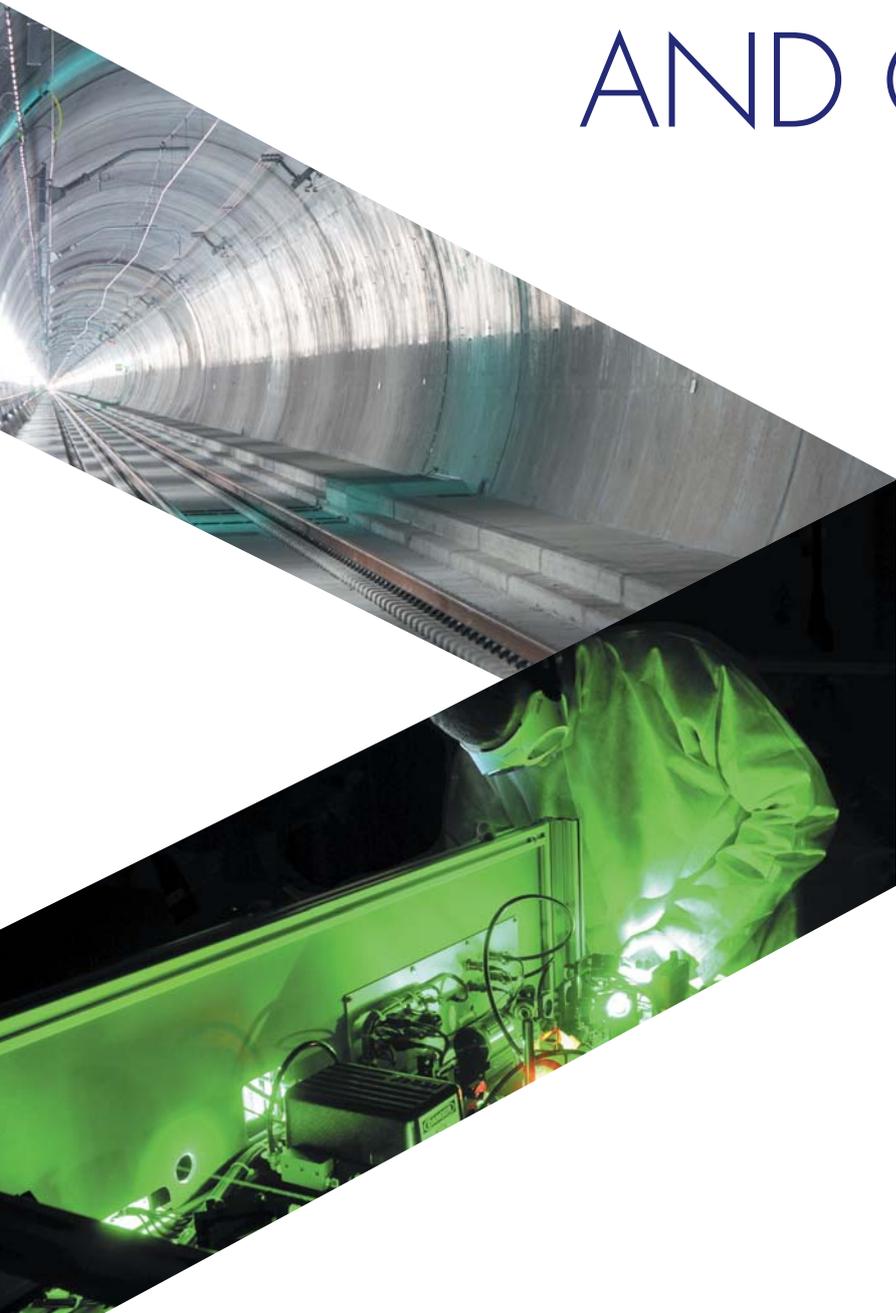
Challenges	Context	Thales response
 <p>PREVENTION OF CORRUPTION</p>	<p>Corruption represents a <b>major risk</b> for multinationals, particularly when emerging markets play a significant role in their <b>international development plans</b>. Solicitation, extortion and passive corruption are still frequent in many countries with weaker governance. These practices expose companies, as well as their managers, to <b>criminal and civil sanctions</b> and can be highly detrimental to a company's <b>reputation</b>.</p>	<p><b>Deployment of measures, procedures and controls to combat any practices that do not comply with the principles of business ethics.</b></p> <p><b>TO FIND OUT MORE</b></p> <ul style="list-style-type: none"> <li>&gt; "Integrity and responsible business conduct" (see p. 36)</li> <li>&gt; Section 5.3.4.1 "Anti-corruption", p. 218 of 2016 registration document</li> </ul>
 <p>CUSTOMER TRUST</p>	<p>Because of their complex nature and vital operational and organisational importance, the critical systems designed by Thales call for a high degree of <b>trust between the Company and its customers</b>. The <b>combination of line-of-business expertise and technical know-how</b> that Thales offers is a key differentiator in many markets. <b>Customer trust and intimacy</b> underpin the quality of Thales's relationships with its customers over the long term.</p>	<p><b>Working in partnership, listening to expectations and anticipating needs to achieve long-term customer satisfaction.</b></p> <p><b>TO FIND OUT MORE</b></p> <p>"Excellence for customers" (see p. 68)</p>
 <p>INNOVATION AND PRODUCT POLICY</p>	<p>To provide customers with advanced solutions that will enable them to sustainably improve performance and competitiveness in a global economy, Thales not only needs to offer proven expertise across the whole range of key technologies underpinning its critical systems (large-scale software systems, onboard electronics for all types of platforms, secure communications and transactions, radar, sonar, and optical sensors, supervision and satellite technologies) but must also maintain a technological lead by proposing the disruptive innovations that are key to a distinctive value proposition.</p>	<p><b>Innovation in terms of processes and organisation, sustained R&amp;D, technological innovations and product policy.</b></p> <p><b>TO FIND OUT MORE</b></p> <ul style="list-style-type: none"> <li>&gt; "R&amp;D, the key to competitiveness and growth" (see p. 54)</li> <li>&gt; Section 2.2 "Research and innovation", p. 112 of 2016 registration document</li> </ul>

Challenges	Context	Thales response
 <p>QUALITY AND DEPENDABILITY OF THALES SYSTEMS</p>	<p>Thales operates in markets that play a <b>vital role</b> in society. For the critical systems the Company designs, <b>quality</b> (including on-time delivery within the agreed budgets) and <b>dependability</b> are of the utmost importance.</p>	<p><b>Processes (Chorus 2.0 management system) deployed throughout the value chain to guarantee the quality and dependability of Thales systems, products and services.</b></p> <p><b>&gt; TO FIND OUT MORE</b></p> <hr/> <p>"Ambition 10/Excellence in delivery" (see p. 61)</p>
 <p>ENVIRONMENTAL INNOVATION</p>	<p><b>Worldwide economic development</b>, increasing urbanisation and changing lifestyles all have an impact on needs in terms of travel, connectivity and <b>natural resource management</b>. At the same time, climate change has serious consequences for the planet and for the lives of its inhabitants. As societies become increasingly reliant on technology, they must <b>incorporate environmental factors</b> into their day-to-day operations.</p> <p>Thales customers across the world are seeking to better understand how the environment is changing, deal with increasing urbanisation and the growth of air travel, and create the conditions for sustainable mobility and smarter cities, while at the same time <b>reducing the environmental footprint</b> of their activities.</p>	<p><b>Design and development of new eco-friendly products that incorporate environmental factors and/or deliver environmental benefits.</b></p> <p><b>&gt; TO FIND OUT MORE</b></p> <hr/> <p>"A policy to meet today's major environmental challenges" (see p. 78)</p>
 <p>ATTRACTING AND RETAINING TALENT</p>	<p>The success and performance of the Thales group hinges on the <b>expertise of its people</b>. Specifically, they depend on:</p> <ul style="list-style-type: none"> <li><b>&gt; its capacity to recruit</b> employees in the different employment markets, in France and abroad;</li> <li><b>&gt; the quality of the key skills</b> and the commitment of its employees;</li> <li><b>&gt; its capacity to manage the talent</b> required for the development of its activity worldwide.</li> </ul>	<p><b>Efforts to enhance the Company's attractiveness and secure its position as a top employer: a good external image supports recruitment and good internal conditions improve employee retention.</b></p> <p><b>&gt; TO FIND OUT MORE</b></p> <hr/> <ul style="list-style-type: none"> <li><b>&gt; "Leveraging human capital"</b> (see p. 73)</li> <li><b>&gt; 2016 social report</b></li> <li><b>&gt; Section 5.1 "Human resources information"</b> p. 186 and following of the 2016 registration document</li> </ul>



# STRATEGY AND OUTLOOK

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# KEY STRATEGIC AREAS OF FOCUS

## Digital Transformation: a Major Stake

### Thales supports its customers in their transformation

The **digital transformation** is a major shift in the landscape that has been taking place for the last quarter of a century, impacting our lives and how we think, communicate, interact and produce, whether at home, at work or in our communities.

Alongside other companies, **Thales** is a **pioneer** and a **pillar** in this connected world. The Group is a digital player by nature and maintains its **leadership** in the **development of new technologies**, providing customers with **value-adding**

**solutions** to help them reap the rewards of the **digital transformation**.

At Thales, over **25,000 engineers**, from a total headcount of 64,000 people, are working today on systems and software, ranging from broadband telecommunication satellites to ultra-secure communication systems for forces deployed in the theatre of operations, from air traffic management to in-flight connectivity, from rail signalling to security solutions for 80% of all electronic banking transactions worldwide.

Making the digital transition a success means not only **mastering the technologies** needed for connectivity and managing

the **risks** and cyberthreats inherent in today's hyperconnected world, but also leveraging the power of big data analytics and **artificial intelligence** to extract meaning and value from the huge volumes of data generated.

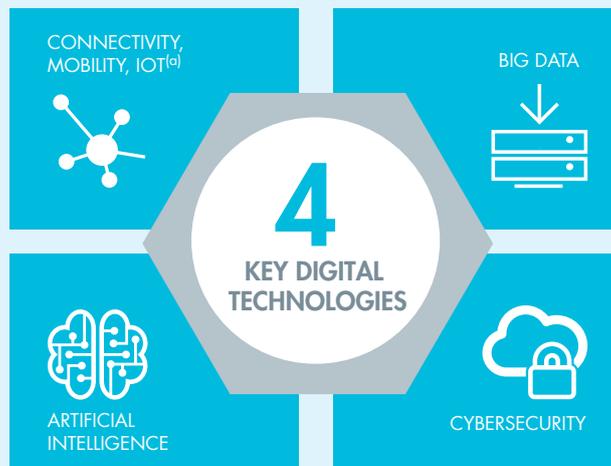
At the heart of the most critical missions, Thales, the **European leader in cybersecurity**, offers a complete range of services and solutions to support the **digital transformation**.

### Four pillars of the digital transformation

Thales is building and developing its digital expertise in four major areas of technology:

- > platform connectivity (professional IoT<sup>(a)</sup> applications);
- > big data and data analytics (see p. 53);
- > artificial intelligence (see p. 54);
- > cybersecurity (see p. 52).

(a) Internet of Things.



## The key enabler of Thales's transformation

Thales believes that the digital transformation is also an innovation booster and a source of profitable growth and genuine cultural change. It gives the Group the opportunity to redefine its value proposition and transform key elements of the industrial value chain – such as customer experience, product policy and lifecycles, partner/supplier relations and internal organisation – making it more **agile, efficient and competitive** as a company and, in turn, helping **consolidate its long-term leadership** in each market.

Focused on three priority areas – customers, operations and human capital – this strategic initiative is orchestrated at the highest level of the Group by the Digital Transformation Office (see box). Reflecting Thales's policy of open innovation, the initiative draws on the best ideas and practices within the Group and across the wider ecosystem of partners and start-ups.

An extensive call for projects called the Digital PoC<sup>(1)</sup> Factory was launched for the first time in 2016 as part of a Group-wide initiative to encourage the implementation of digital proof-of-concept projects. This initiative serves as a catalyst for Thales's digital transformation, helping the organisation to move from promising ideas to practical demonstrations, with a focus on the real-world benefits of these new technologies. The approach can be summarised as *Think BIG, start small, move FAST!*

Some 221 digital proof-of-concept project ideas were submitted by 350 participants in 14 countries in 2016. Of these, six were identified as "global transformation initiatives" on a Group-wide scale.

### PoC<sup>(1)</sup> Factory: 2016 figures



Examples include deployment of a digital platform to make it easier to install and use business applications that interact with Thales's internal and external ecosystem; creation of a data lake, which uses big data technologies to analyse and unlock the value of all available internal data; and deployment of the first wave of interactive proposals for customers in iBook format.

Another 21 initiatives focusing specifically on Thales's corporate functions and Global Business Units were also selected. All of these have since been operated by the Digital Transformation Office. A second Group-wide call for projects was launched in March 2017, with a priority focus on new business models and ways to engage with customers and understand their requirements.

#### A UNCONVENTIONAL APPROACH: THE DIGITAL TRANSFORMATION OFFICE

Staffed by nine people from various functions – including R&D, marketing, innovation, operations, information systems and human resources – and reporting to the Thales Executive Vice-President, Strategy, Research and Technology, the Digital Transformation Office is tasked with four key missions:

- identify and implement Group-wide initiatives;
- help Group entities define and execute a digital transformation roadmap;
- facilitate cross-fertilisation of initiatives within Thales;
- set up and develop digital organisations within the Group.

#### ➤ TO FIND OUT MORE

Digital technology, an innovation booster: [events.thalesgroup.com/innovdays](https://events.thalesgroup.com/innovdays)

(1) Proof of Concept.

## Cybersecurity: a Critical Component of the Digital Transformation

While the digital transformation is **helping businesses perform better and more efficiently**, it also makes them more vulnerable to cyberthreats. The technologies underpinning the digital economy – such as cloud computing and mobility – are exposing information systems to the **risk of attack, intrusion and sabotage**. The Internet of

Things and the new data usage patterns that go with it further exacerbate these vulnerabilities. Over 1 million cyberattacks are reported around the world every day<sup>(1)</sup> and no one is completely safe. As many organisations have learned the hard way, **cybersecurity is a critical component of the digital transformation**.



**Thales has developed unmatched expertise** to meet the extremely stringent security requirements of its customers and support their digital transformation. From airlines and telecoms companies to critical infrastructure providers, banks, transport operators and of course the defence sector, the information systems secured by Thales all meet the same **exacting cybersecurity requirements**.

With 1,500 cybersecurity experts, Thales offers **proactive and needs-responsive protection for information systems** in the most sensitive contexts. This includes security **auditing** and penetration **testing**

by Thales's teams of ethical hackers, Security Operations Centres for end-to-end supervision of critical information systems, currently used by 130 major customers with particularly rigorous security requirements, mobilisation of a Rapid Reaction Team in the event of an attack and installation of encryption hardware to protect sensitive data.

**Today, Thales provides security solutions that help protect the information systems and critical data of 19 of the world's 20 largest banks and 9 of the top 10 internet giants.**

### WORLD-CLASS PARTNERSHIPS

A key player in the energy revolution, **Engie** is putting digital at the heart of its strategy and is planning to allocate €1.5bn over three years to new businesses and digital technologies. Smart grids, predictive maintenance and the Internet of Things: Engie is dealing with more and more flows of information.

With the world changing so rapidly, Engie has entrusted the cybersecurity of its IT system to Thales, including 24/7 security supervision for a period of five years. The two companies have decided to combine their expertise into a global Security Operations Centre (SOC) to maintain the highest-level capability for preventing and responding to threats, providing Engie with an optimal security environment for its industrial operations.

Under a strategic partnership signed in June 2016, **Cisco** and Thales have developed a trusted cybersecurity solution to detect and counter cyberattacks more effectively. Cisco is a world leader in information technologies, while Thales is European No. 1 in cybersecurity and a worldwide market leader in data protection. This innovative solution draws on the combined expertise of the two partners to help critical infrastructure providers better protect their information systems from cyberthreats.

(1) Symantec Internet Security Threat Report 2016.

## From Big Data to Smart Information

In a world of communication systems, social media and mobile apps, the volumes of data produced today are quite phenomenal – an estimated 90% of all the data on Earth has been generated in the last two years! The Internet of Things is taking this phenomenon to a new level. Road sensors, GPS receivers, smart electric meters and a whole host of interconnected objects and wearable devices are already making their entrance, generating billions of additional data points.

Thales first became involved in the big data revolution in 2009, when it was part of a joint R&D project to detect and investigate cases of online payment fraud in France. As a data processing specialist, Thales sees big data as a natural development of its core business.

By investing consistently in research, Thales has **developed the innovative technologies needed to handle these burgeoning volumes of data**, including algorithm parallelisation and linearisation technologies.

Today, as the **European leader in cryptology and security architectures**, the Group is able to guarantee every level of security from enterprise-grade confidential to top secret classified. To maintain and expand this technological

lead, Thales set up a joint laboratory with Pierre & Marie Curie University (Paris VI). Today, this lab is developing the next generation of big data and big analytics methods and technologies for applications in cybersecurity, cybercrime prevention, intelligence and rail and air transport.

In addition, Thales continues to develop its core competencies and recruit data scientists with a combination of skills in **data analytics** and **advanced statistics**, information technologies, new database tools (NoSQL, NewSQL, etc.) and new algorithm implementations (Hadoop Pig, Hive, MapReduce, Storm) and **line-of-business expertise** in the same sectors as our customers.

Some of Thales’s main achievements include:

- GAIA satellite: to observe and catalogue over 1 billion objects in our galaxy, the Thales infrastructure has the capacity to process 1 petabyte (10<sup>15</sup> bytes) of data;
- Cybersecurity: using the latest big data and big analytics technologies, Thales consolidates internal and external data logs to detect, analyse and understand cyberthreats and develop appropriate responses;

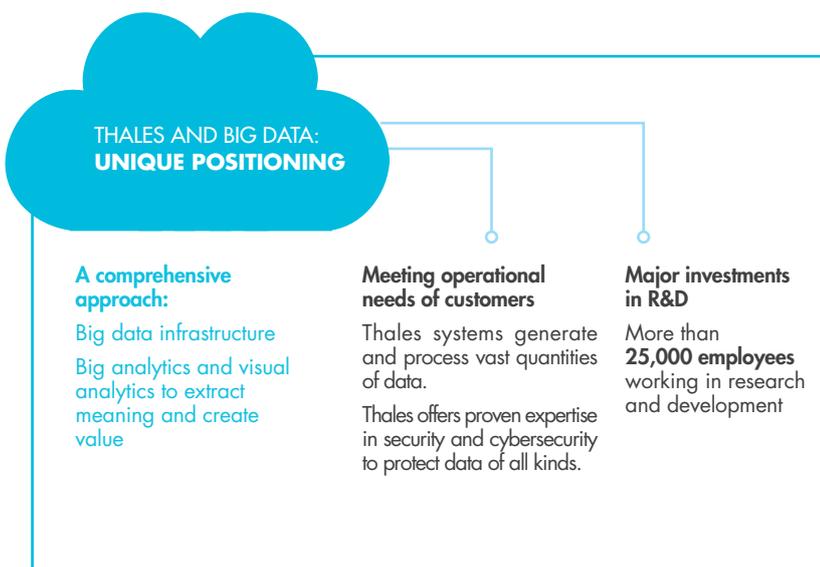
Big data can be defined as datasets that are so large that they cannot be adequately collected, stored, managed or analysed using conventional database management technologies.

In Thales’s sectors of activity, data variety and velocity are often more important than data volume.

For this reason, the challenges in big data are not limited to data volume, but also encompass the complexity of managing such volumes, using approaches such as graph theoretic modelling of large-scale semantic networks.

*(Source: Mac Kinsey Global Institute)*

- social network analysis;
- airports: real-time passenger flow analysis to optimise airport operations and security;
- air traffic management solutions to improve flight predictability and provide passengers with more accurate information on arrival and departure times;
- predictive maintenance solutions for rail operators.



### BIG DATA AT THE HEART OF THE CRITICAL DECISION CHAIN

Thales’s role is to assist customers in making the right decisions by providing the tools and technologies they need to gather, process and distribute information, helping them understand complex situations so they can decide and act in a timely fashion and obtain the best outcomes. In this critical decision chain, Thales considers big analytics as a core technology and a key differentiator in the marketplace. As a critical infrastructure operator, Thales has direct access to its customers’ data and systems. The Group offers a unique combination of advanced expertise in big analytics, security management and secure cloud computing, plus an in-depth understanding of each customer and its business processes.

➤ TO FIND OUT MORE

[www.thalesgroup.com/worldwide/big-data](http://www.thalesgroup.com/worldwide/big-data)

## Artificial Intelligence: Making Humans Ever More Capable

New breakthroughs in **artificial intelligence** offer **huge potential** in all of Thales’s markets, as well as for its engineering, production and support functions. Artificial intelligence (AI) refers to the set of scientific disciplines and technologies that enable machines to mimic, extend and/or augment human intelligence.

Structured across its various research centres in France, Canada, the United Kingdom, the Netherlands and Singapore, as well as at the various Global Business Units, Thales’s **expertise in artificial intelligence** encompasses:

- modelling and representation of data, information and operational knowledge;
- knowledge-based systems;
- spatio-temporal reasoning and uncertainty;
- technologies inherent in perception (signal, image and video processing);
- semantic information processing (text, audio, etc.) based on natural language processing technologies and learning methods, including neural network approaches;
- technologies such as rule-based systems, virtual and augmented reality, learning, combinatorial problem solvers, multi-agent systems and decision-support tools.

When dealing with uncertainty, decision-makers need more robust decision-support solutions that are optimised in new ways to reflect different levels of risk tolerance or risk aversion.



With the advent of big data and the availability of very large datasets, ever greater processing power, decision-support systems and deep-learning algorithms, **artificial intelligence has become a key enabling technology** for Thales, paving the way for a whole host of new applications in defence, security, cybersecurity, space, aerospace and ground transportation, as well as in industry (for enhanced production performance) and support services (with predictive maintenance, for example).

### DISRUPTIVE TECHNOLOGIES

Disruptive innovations allow Thales to make significant technological breakthroughs and secure its future growth. Recent examples include:

- in Autumn 2016, Thales unveiled its **Autonomous Underwater and Surface System (AUSS)**, which represents a veritable breakthrough in terms of concept and technology in the field of maritime surveillance. In hostile and hazardous environments, autonomous systems are the state-of-the-art solution that naval forces need. AUSS is a hybrid unmanned system based on a totally new propulsion concept. Navigating in total security and with agility, it is capable of operating above and below the surface and can avoid obstacles. It is designed for naval

surveillance, intelligence gathering on the surface, antisubmarine warfare and mine countermeasures missions.

To complete the development of AUSS in a record three years, Thales teamed with 18 French SMEs to create a highly effective innovation ecosystem in an integrated laboratory that was kept secret. The multidisciplinary team worked in start-up mode from the design phase right through to the sea trials;

- Developed by Thales Alenia Space, the **Stratobus autonomous stratospheric platform**, midway between a satellite and a UAV, will offer a surveillance range of 200 km from 2020. Stratobus is reusable, repairable and reconfigurable for telecoms, optical, surveillance, environment management and other missions. And because it provides

detailed information at a regional level, Stratobus will be the perfect complement to satellite coverage, which is more global in scope;

- Thales is working with satellite operator SES to develop a **broadband internet connectivity solution for airliners**. Under this partnership, SES has selected Thales Alenia Space to deliver a purpose-built satellite for this application, which will be launched in 2020. Passengers will have access to the full complement of in-flight internet services, including video streaming, games, social media and live television. With this in-flight connectivity solution, Thales is positioned in one of the most promising segments of aviation, which Euroconsult estimates will be worth \$5.4bn by 2023.

## Research and Innovation: the Key to Competitiveness and Growth

“ Inventing today products for tomorrow ”

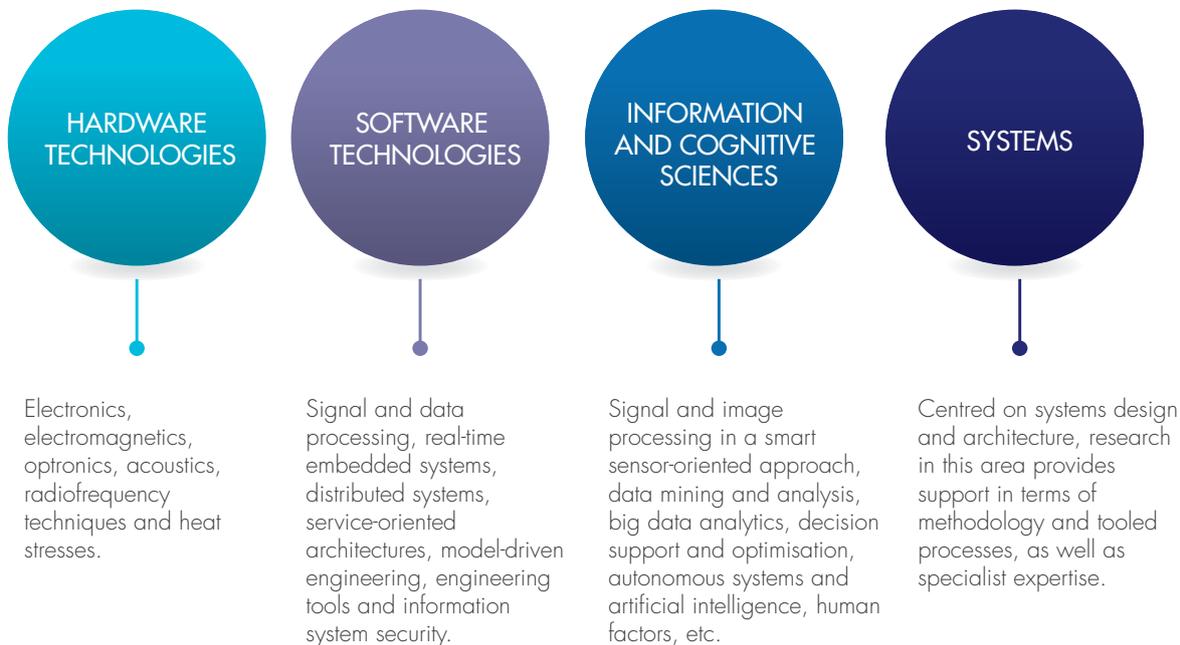
Thales defines **innovation** as anything that breaks with the past and creates value, as perceived by customers, in terms of processes, organisational models, technical solutions or the way a company interacts with its customers and markets.

As a major strategic differentiator, innovation needs to be visible in the marketplace: a company cannot simply decide to be an innovator but needs to be recognised as such by its **customers, competitors and ecosystem**.

**Thales** is a global technology leader thanks to its **ongoing investment in R&D**. The organisation conducts its research programmes to provide competitive technologies, particularly in detection, analysis and decision support, required to design and develop the critical information systems its customers need in each of its markets: aerospace, space, ground transportation, defence and security.

### Acquiring increasingly sophisticated technologies: four key research areas

Thales needs the ability to develop the technological building blocks that are a crucial part of all its core businesses and that enable the Group to offer value-added, competitive solutions in each of its markets.



## Open Innovation: Connected with the Wider Ecosystem

Thales forms **lasting partnerships** with strategic partners to **guarantee a strong technological foundation on which to build**. In all countries where the Group has industrial activities, it has formed partnerships within local innovation ecosystems to take advantage of synergies between:

- major industrial groups;
- innovative companies;
- training and research establishments.

The effectiveness of Thales's R&D effort hinges largely on the **decentralised nature of its operations** and close **coordination on strategic topics**. R&D teams are based at more than 80 sites in all the Group's main countries of operation:

- the research laboratories of Thales Research & Technology, which have introduced a system of open innovation to maximise interaction with the academic research community, other Thales units and innovative companies;
- concept development and evaluation environments, which offer new opportunities to work with customers on real-world scenarios and develop

solutions that meet their current and future operational needs;

- Thales entities, where innovative product policies designed to systematically shorten development cycles and limit programme risks have been introduced.

In countries where growth is strong, Thales is **continuing to develop local innovation hubs**, which provide a unique opportunity to engage with customers and foster the kind of constructive interaction that enables the Company to develop distinctive solutions. This interaction helps Thales to meet the specific needs of each sector of activity and to develop solutions that reflect local cultures and the level of maturity of each market to ensure a successful digital transformation in each case.

More than 10 innovation hubs are now in operation around the world. They act as a focus for innovation based on **new collaborative design approaches** that combine simulation, visualisation and rapid prototyping.

### THE REVITALISING EFFECT OF START-UPS

In 2016, Thales stepped up its open innovation policy with start-ups, which form a particularly dynamic ecosystem. By staying in touch with these innovative businesses, the Group can identify emerging new technologies as well as new services and business models. Start-ups are potential partners and suppliers, and may offer some benefit in terms of acquiring an equity stake.

In France, Thales approached a number of high-performing incubators and accelerators in 2016 and increased its investment in Starburst Accelerator, a start-up incubator in Paris specialising in aerospace, of which the Group is a founder member, to help it expand its activities in North America and Germany. In the United States, the Group has ties with innovation ecosystems in Boston (centred on MIT) and Silicon Valley.

In the last two years, Thales has analysed over 300 start-ups and launched 25 projects in conjunction with Group operating units in avionics, optronics and cybersecurity.

### DIGITAL REVOLUTION IN AVIATION

The **xPloR innovation hub** in Boston, Massachusetts, is focusing on big data analytics for the aviation market, drawing on the expertise of Thales research centres in France and Canada. This sector generates extremely large data streams. Analysis of these streams can provide opportunities to create value for airlines, airports and navigation services in areas such as decision support, anomaly detection and prediction of traffic- or maintenance-related events. The first demonstrations of predictive maintenance for IFE equipment, accurate prediction of flight arrival times and new passenger services have already been highly conclusive.



## Dynamic Management of Intellectual Property

Once again in 2016, **Thales** was included in the **Clarivate Analytics** (formerly Thomson Reuters) **Top 100 Global Innovators** ranking, with the Group standing out for the volume, success and influence of its patents, underlining its commitment to innovation, protection of ideas and commercialisation of inventions. Thales has been included in this prestigious ranking four times since 2011, which testifies to the importance the Group places on implementing an active and ambitious intellectual property management strategy.

Thales filed almost **300 new patent applications** in 2016.

The continued large number of patent applications in recent years reflects Thales's commitment to **innovation** and its ability to translate research results into competitive advantages. The Thales portfolio, which includes more than 15,000 patents, is regularly adapted to operational requirements, particularly to protect Thales's market share.



### AT A GLANCE



**Over one-third of the workforce** (approx. 25,000 people) are engineers and researchers.



In 2016, **€743m** invested in self-funded R&D (5% of revenues).



A portfolio of **15,000** patents and **300** new patents filed in 2016.



**5 research centres around the world:** France, Canada, Netherlands, United Kingdom and Singapore.



More than **50 partnerships** with universities and public research institutes in Europe, the United States and Asia.



Attractive to young scientists: **200 PhD candidates** supported by Thales worldwide.



Thales also supports **teaching chairs** in subjects in line with its technical priorities.



The annual **Thales Innovation Awards** are a chance for Thales engineers to demonstrate their rich innovative potential.

Thales presents its latest technological advances to customers, decision-makers, investors and the media at the **InnovDays** event.

# OUR VISION: AMBITION 10

## A Return to Growth for a More Global and Profitable Group



Reflecting Thales's unique strengths, the **Ambition 10** strategic plan, launched in 2013, is built on three pillars: growth, competitiveness and talent. It aims to:

- > **return to profitable revenue growth;**
- > **capitalise on the Group's worldwide presence** to speed up its development;
- > **increase the Group's profitability**, which has previously lagged behind major competitors.

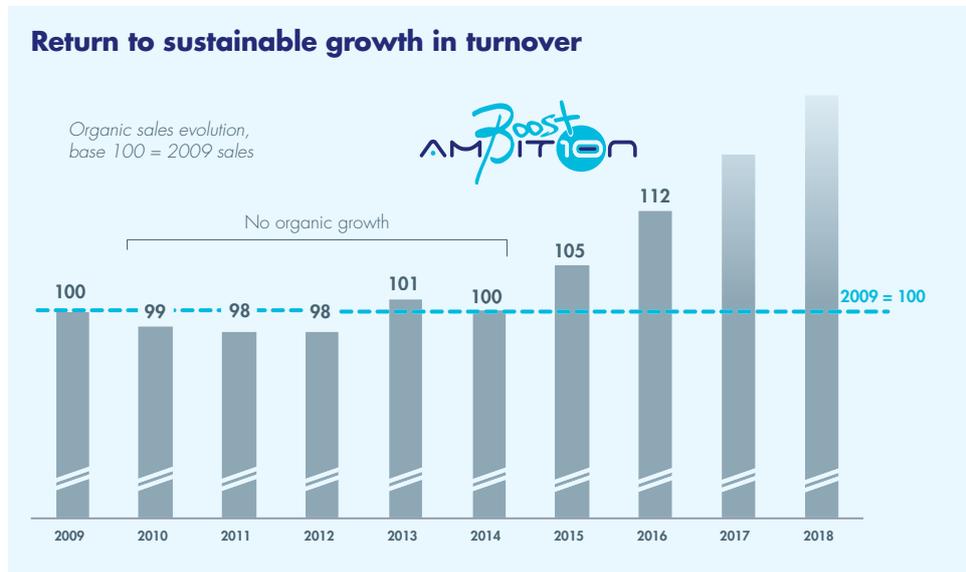
Developed by operating units for operating units, Ambition Boost is the performance programme that will enable Thales to achieve the objectives set out in Ambition 10. As the Group's roadmap for the coming years, Ambition Boost provides a shared framework that allows every team and every employee to actively contribute to Ambition 10 on a daily basis.

### The Ambition Boost dynamic



Since it was launched, **Ambition 10** has demonstrated its relevance:

- **return to sustainable revenue growth:** organic growth of +6.8% in 2016 (up from +4.5% in 2015);
- **strong growth** in emerging markets: +14% in 2016 (after +16% in 2015);
- Group-wide **deployment** of the Orchestra engineering platform, designed and developed by Thales in 2014-16.



## Growth: Driving our Ambition

To return to profitable growth, Thales is focusing on three major factors:

- capturing opportunities in emerging markets;
- signing major contracts;
- growing services.

The **emerging markets** of Asia, Latin America, the Middle East and Africa offer huge potential for Thales. These markets have several points in common: rapidly increasing urbanisation, significant infrastructure requirements, a boom in air traffic and a need to address defence, security and environmental issues.

To ensure its development in these countries, **Thales** can rely on a **historic presence** that dates back **more than 60 years** in some cases, such as in India. The Group has put in place a suitably adapted sales and marketing organisation, managed at the highest corporate levels, and implemented structures to derive more added value locally or arrange technology transfers if necessary.

For five years in a row, Thales's results have been steadily improving in these markets:



The ability to deliver **major contracts** – valued at **more than €100m each** – is one factor that sets Thales apart. Under Ambition 10, there has been a significant jump in the number of such contracts signed. In 2016, Thales booked 14 large orders with a unit value of over €100m, representing a total amount of €4.7bn (see Financial performance, p. 14), after a record year in 2015, with 24 major contracts signed.

At the same time, Thales has continued its efforts to grow sales of **services**, which by their nature offer more potential for repeat business than equipment contracts. To achieve this growth, the Group is staying closer to its customers in order to better understand their operational procedures and **propose innovative, value-added solutions** to the specific issues they face.

## Competitiveness: Fuelling our Growth

Thales is pursuing its efforts to **improve competitive performance** and differentiate its product offering and costs in an increasingly competitive environment.

Efforts are centred on three strategic priorities:

- expansion of the Group's international industrial footprint;
- R&D and engineering competitiveness;
- customer-driven competitive innovation.

Thales generates 30% of its revenues in emerging markets. Yet they account for only 7% of the Group's employees and a negligible share of product development. To accelerate its growth in these countries and **become a recognised local player**, Thales is developing infrastructure, recruiting talent, forming partnerships and making purchases locally. This **expansion of its industrial footprint** will enable the Group to increase the proportion of revenues generated by local production facilities, while reducing costs and improving competitiveness.

As part of this policy, Thales has developed a strict selection and qualification process in order to secure sustainable partnerships with local industrial players who meet a set of criteria in the areas of integrity and business ethics, skills and expertise.

This system is part of a process of deploying appropriate and reasonable measures for prior verification, or due diligence, of third parties.

**Engineering** is central to Thales's added value, with 25,000 engineers across the world (over one-third of all employees), offering expertise in hardware, software and systems. Thales engineers are increasingly in demand, as customers require tailored solutions to help them respond to ever more complex and critical situations.

Against this backdrop, **best practices** as well as state-of-the-art methods and tools are being **rolled out** to make engineering more competitive. Examples include the **Agile method** and the design and deployment of a single engineering platform, Orchestra, to make it easier to share and implement the best tools and practices.

On the **innovation** front, Thales is pursuing a raft of initiatives, including **stronger partnerships with research laboratories**, support for **start-ups** and **co-innovation with customers** (see p. 112 of the 2016 registration document). Internally, investment has been channelled primarily to a number of **'dream products'** – totally new solutions with the potential to become benchmarks in their respective fields.

### TARGETED ACQUISITIONS

Thales's acquisitions policy supports this dynamic by focusing on targeted technology building blocks that are acquired to reinforce rapidly growing areas of business.

In 2016, Thales completed its acquisition of **Vormetric**. This operation rounds out the Group's portfolio of cybersecurity solutions and makes it a global leader in data protection. The combination of Vormetric and Thales's solutions enables organisations to protect and control their data from the datacentre to the cloud, in compliance with applicable privacy and confidentiality rules.

Thales also acquired Belgium-based company **AvioVision**, whose EFB applications platform has already been successfully implemented with 25 airlines and is currently used on more than 900 aircraft. By combining their capabilities, Thales and AvioVision will be able to develop a broader spectrum of operational solutions for airlines, leveraging Thales's expertise in avionics, airborne connectivity, data analytics and ground support platforms.

In the satellite market, Thales completed the acquisition of **RUAG's optoelectronics business line** in summer 2016. Based in Zurich, this business specialises in science instruments for satellites and equipment for optical communications in space. The acquisition allows Thales to expand its range of solutions for the science, Earth observation and telecommunications markets.

“ The objective with these latest acquisitions, and probably with further operations down the road, is to help us move faster in four major areas that are critical to the digital revolution: big data, artificial intelligence, cybersecurity and connectivity. With these core capabilities, Thales can win new business by proposing distinctive value propositions that set us apart from our competitors. ”

**Patrice Caine**  
Thales Chairman & CEO

## Developing Talent and Encouraging Success

**Continuous development of talent** is a key strategic driver for a Group such as Thales, which operates in high-tech markets characterised by major projects. Developing our people and the skills they offer helps to secure the future. Ambition 10 therefore focuses on three aspects in particular:

- leadership and diversity;
- customer mindset and value;
- teamwork and incentives.

To build a truly **global, diverse and cohesive company**, with a long-term vision for its development, Thales has introduced new models for leadership, career planning and mobility. The Group is also establishing a **wide-ranging talent pool** around the world. Thanks to an employment policy appropriate to its needs, the Group recruited 7,206 employees in 2016, an increase of 10% compared to 2015.

In addition, Thales is taking innovative measures to **attract experts with hard-to-find skills** and raise the profile

of its employer brand. One such example is Project Arduino, which invites engineering students around the world to put their skills to the test by developing an innovative project linked to Thales and its areas of business using an Arduino kit<sup>(1)</sup>. In 2016, more than 1,000 applications were received and 524 students were selected to participate as part of 103 teams. Online voting by the general public determined which three teams would present their project to a panel of Thales employees. The winning team, based in the United States, built a solar-powered drone landing platform, designed to service autonomous delivery and reconnaissance drones in remote locations.

Thales has also implemented a new approach to performance management inspired by the Group's core values. It is based on the principle of **teamwork and cooperation**, with a clear and simple definition of responsibilities.

To be perceived as a **trusted partner**, Thales is constantly seeking to better

understand the issues customers face, as well as their evolving needs, constraints and budgets. In an increasingly demanding environment, customers' ability to achieve their objectives is more dependent than ever on the performance of their partners and suppliers. The strength of Thales's order book and the ability to move up the value chain depend on the **quality of relationships with customers**.

### ➤ TO FIND OUT MORE

- "Leveraging human capital", see p. 73
- "Human resources information" section of the 2016 registration document, see p. 186 and following

## Excellence in Delivery



Thales's **programme delivery**, in terms of punctuality, cost and quality, is the very foundation of its **success**. For many years now, the Group has been reinforcing its organisation and procedures in this area.

The Quality Department defines the quality assurance policy and objectives and drives improvements in **customer satisfaction**. It also coordinates the Chorus 2.0 process management framework applicable to all Group entities. Thales has a detailed process for managing and evaluating bid and project management risks. Risks are classified at Group level according to their criticality. Critical bids and projects are the subject of specific tracking.

(1) Arduino is an open-source printed circuit board containing a microcontroller, which can be programmed to analyse and produce electric signals. The system can be used to complete a broad range of tasks, from managing home automation to controlling a robot.

### Efficient structures

Thales is continuing its efforts to **rationalise structures** in order to improve its cost base as well as the efficiency of the various corporate functions and the Company as a whole.

Opened in September 2016, Thales's new industrial campus at Bordeaux-Mérignac brings together the 2,600 employees of Thales Systèmes Aéroportés and Thales Avionics in the Bordeaux region on a single site. The 60,000-sq.m complex stands out for its futuristic architecture and organisation into micro-enterprises. Thales has invested €200m in this project. Designed to improve the performance and quality of life of the people who work there, the campus has been developed at the heart of a landscaped

park with seven buildings connected by a "technology boulevard" and an entire building devoted to customer hospitality and services, with a business centre, showroom and numerous meeting rooms.

At the same time, Thales is continuing to **optimise its overhead and administrative costs** with the help of systematic internal and external benchmarking exercises and by implementing a transformation plan for support functions.

### Purchasing competitiveness

To improve costs, quality and on-time delivery of supplies, Thales has made substantive efforts to optimise its supplier portfolio, and in particular has adopted a more structured approach to collaboration.

Three ways to boost long-term competitive performance are being examined in detail:

- greater centralisation of purchasing to maximise economies of scale;
- implementation of global sourcing processes;
- systematic involvement of purchasing as early as possible ("design-to-buy").

In 2015–16, Thales launched 230 initiatives to reduce spending at each of its Global Business Units.

The Group's annual purchasing spend currently amounts to €6.89bn.

#### ➤ TO FIND OUT MORE

"Responsible purchasing", see p. 71



# PREPARING FOR THE FUTURE

## Digital Mobility: Transport at the Dawn of a New Era

### Digital aviation

With air traffic volumes expected to double by 2030, airlines, air traffic controllers and airport operators not only need to improve efficiency, but must also offer passenger services that will give them an edge in an increasingly competitive sector. Air-to-ground connectivity for pilots and passengers is one of the major performance drivers that will help meet these new challenges.

For personal and professional reasons, flight crews and passengers increasingly need to **stay connected** with their regular online environment while airborne, including web access, social media and work-related applications. While this creates real security challenges, it also opens up huge opportunities, particularly for the development of innovative solutions tying together both certified and non-certified tools.

The growing popularity of electronic flight bags, or EFBs – a tablet device providing pilots with an electronic organiser, decision aids and regulatory documents in PDF format – is an illustration of how aviation stands to benefit as it adopts a more open approach. Recognising the potential of this type of solution, Thales acquired AvioVision in 2016, one of the most dynamic companies in the EFB market, with the aim of developing value-added solutions for airlines (see p. 60).



This kind of innovation also has potential applications in military aviation. As mission environments and equipment become increasingly complex – joint and coalition operations, fusion of flight, satellite and ground sensor data, etc. – tablets connected to aircraft systems can be loaded with data from previous operations to help pilots make better, more informed decisions in sensitive situations.

**Big data**, or the **ability to gather and process huge datasets securely and reliably**, also offers significant potential. In both civil and defence sectors, analysis of the data generated by the all systems on an airliner or military aircraft is already driving significant improvements in platform availability, for example with the development of predictive maintenance solutions.

Similarly, **flight path analysis** and optimisation in commercial aviation is resulting in considerable reductions in fuel burn and CO<sub>2</sub> emissions.

The ability to capture, analyse and use passenger data offers airlines a crucial advantage, enabling them to better target their value propositions and meet the expectations of customers and prospective customers more closely. However, financial and personal information is particularly sensitive. Not only must it be collected and processed in accordance with ethical standards and practices; the companies and/or administrations involved must also protect the information by implementing a coordinated cybersecurity policy. **Cybersecurity and data anonymisation solutions** developed by Thales offer an optimal response to these requirements.

## Digital rail: improved infrastructure and better services

**Digitisation is a game-changer in the rail sector, making rail travel smoother, safer, more reliable and more attractive for passengers. Advanced digital technologies have already brought gains in operational efficiency and service quality to rail operators around the world. Today, with the development and widespread adoption of new technologies, further opportunities are emerging that could further accelerate this transformation.**

In recent years, digital technologies have spread to almost every sphere of rail operations, from mainline signalling to traffic management. All of these developments have led to **gains in safety, capacity and efficiency**. But in most cases, digital solutions have addressed narrow operational needs, with systems typically working in functional silos.

By interconnecting people, systems and objects, the digital transformation is opening up a whole new array of opportunities. It makes it possible to construct entirely new work processes and business models, and it provides the opportunity to improve the efficiency of rail operations, often dramatically.

Europe's leading rail operators are making digital transformation a priority. DB in Germany, Network Rail in the United Kingdom, SNCF in France and SBB in Switzerland all have digital programmes in place. Rail digitisation is also seen as a key plank in the creation of the European Commission's Digital Single Market Strategy.

At the same time, new passenger services – real-time individualised information, journey planning, digital ticketing and broadband connectivity on trains – pave the way toward providing users with the personalised, multimodal, door-to-door travel experience they now expect.

The digital transformation is **improving the performance of existing rail infrastructure**, making it possible to do more – run more trains and transform the reliability of services – with fewer resources. This is one of the key benefits of high-capacity digital signalling systems, such as ETCS<sup>(1)</sup> for mainline rail and CBTC<sup>(2)</sup> for metros, which can deliver capacity gains in excess of 20% compared to legacy systems.

Thales invented CBTC technology more than 30 years ago and later introduced ETCS. Drawing on its expertise in the aerospace sector, Thales continues to break new ground today with the **development of train-centric signalling**, marking a fundamental change in the way rail networks are operated. Instead of relying on trackside infrastructure, trains will use sensors and radiocommunications to determine and report their own positions. This will yield major benefits, including **capacity gains and cost reductions**.

Thales is also conducting research into **autonomous train technology**. The autonomous train will be aware of its surroundings and capable of making decisions on the basis of inputs from sensors. Autonomy will have important implications for metros in particular, because it reduces the amount of trackside infrastructure required and promises to boost capacity and run more frequent services.

The use of big data and big data analytics technologies to analyse and exploit the data generated by rail transport systems offers huge potential for the development of innovative solutions for traffic management,

passenger information, driver advisory systems, timetable planning, predictive maintenance, rolling stock management, smart rostering, revenue management and asset management.

Today, around a third of delay minutes on mainline networks are caused by the failure of critical equipment, such as point motors, axle counters and track circuits. Most of these failures could be avoided if they were predicted in advance. This is why Thales is redoubling efforts to develop new **predictive maintenance solutions** based on big data technologies.

By integrating analytics and big data tools, particularly machine learning, it is possible to predict the impact of external factors – such as weather conditions and sporting or cultural event calendars – and fine tune train operations accordingly. Historical data can be used to enrich this capability, allowing the system to learn independently and continuously improve performance.

The **digital rail transformation** clearly calls for the highest levels of safety and security. For this reason, Thales is particularly attentive to the **cybersecurity performance** of the solutions it develops for this critical environment.

(1) European Train Control System.

(2) Communications-Based Train Control.



From high-capacity signalling for the new Gotthard Tunnel in Switzerland, the world's longest railway tunnel, to the modernisation of the London Underground, digital solutions provided by Thales are at the heart of many of today's largest and most prestigious transport infrastructure projects.

Thales has all the building blocks needed to create the next generation of digital solutions. These include sensors to gather data, communications to transmit and share information, secure datacentres, cloud computing, data processing and the expertise to create value by turning data into actionable insights.

## Digital Battlefield: a Key Factor in Land Forces Modernisation

**Data fusion, mission simulation, fast prototyping and more computing power on platforms – digital technologies represent a revolution for both the armed forces and the defence contractors that serve them. Effective networking of units in the field enables land forces to respond faster to evolving situations, coordinate actions with greater precision, achieve greater effects and ultimately retain the operational advantage.**

This connectivity between systems that all depend on the same C4ISR<sup>(1)</sup>

capability is driving a **deep-seated digital transformation within land forces** today. Advanced technologies have already gained traction, for example with the growing use of UAV systems as well as digital tools for advanced planning and preparation. Today, digitisation is a key enabler of collaborative combat and the emergence of new digital tools is further accelerating this process.

Digital technologies also **play a crucial role in training**, with advanced simulation techniques helping personnel to learn

how to use their equipment before they are deployed in the field.

And with the increasingly sophisticated intelligence and processing capabilities made possible by digital technologies and connectivity – big data, artificial intelligence, Internet of Things, etc. – armed forces can adapt their modes of action based on military, political, social, ethnic and religious factors to achieve better outcomes.

### ACCELERATING COLLABORATIVE COMBAT WITH SYNAPS

Unveiled by Thales at Eurosatory 2016, SYNAPS is the new broadband tactical software-defined radio family for collaborative combat.

As the digitisation of the battlefield continues, SYNAPS marks a real revolution in military radiocommunications in that it not only meets the need for hierarchical communications within the command structure but also supports the horizontal communications needed for new forms of engagement such as collaborative combat. Like the network of neurons in the human brain, SYNAPS acts as the nervous system of a military deployment, enabling units to detect threats and share large volumes of information about the tactical situation in real time. These dual hierarchical and collaborative capabilities support C4I applications (Command, Control, Computers, Communications and Intelligence), providing commanders with information superiority and significantly raising the tempo of operations.

SYNAPS represents a great leap forward in radiocommunications for the armed forces and is the only system of its kind on the market.

### DIGIPACK: FAST ACCESS TO INFORMATION FOR CONNECTED VEHICLES

Network-centric operations hinge on the ability to share the right information with the right people at the right time. Launched in 2016, Digipack meets the requirements of these new forms of engagement to support land forces in their digital transformation. This new turnkey digitisation solution for protected vehicles is designed to give forces the information superiority they need. It is supplied as a ready-to-deploy digitisation kit that includes a battlefield management system, tactical radio and intercom system.

(1) C4ISR refers to a set of military functions defined as C4 (command, control, communications, computers), I (intelligence), S (surveillance) and R (reconnaissance). A related term is C4ISTAR, which also includes target acquisition and reconnaissance for coordination of operations.



# THALES CREATES VALUE FOR ITS STAKEHOLDERS

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# EXCELLENCE FOR CUSTOMERS

To better meet the needs and challenges of its customers, Thales is adjusting its business model to strengthen its local commercial and industrial operations, while reaffirming the principles of integrity that underpin its marketing and sales policy<sup>(1)</sup>. The Thales strategy revolves around local country operations based on working in close proximity with customers over the long term and listening to their needs, making the Group a major industry player in its traditional countries of operation and helping to expand its business in countries with strong economic growth.

## Customer Engagement and Satisfaction

**Customer trust** is central to **Thales's commitment** and one of its core values. Regularly assessing the satisfaction and trust of its customers is a **key operational performance indicator** as well as a **permanent driver of improvement and progress**.

Thales relies on a **worldwide system** for listening to customers and managing the quality of its relations with customers, comprising:

- a two-year cycle of customer surveys covering all of its activities;
- a network of independent consultants meeting with customers in more than 100 countries;

- a central platform to collect data and feedback from customers;
- indicators and analyses of the various market segments, product lines, etc.;
- action plans to address the specific needs of each customer.

The global scope of the system reflects the Group's commitment to **pursue a broad, collaborative and relatively unique approach** to customer relationship management and **continuous performance improvement**.

It provides Thales with a **comprehensive picture of the quality of its relations** with customers:

- business, technical and operational relations;
- the bids and solutions it proposes; contract execution;
- products, systems and services delivered;
- alignment with operational needs and strategic challenges;
- strategy, innovation and preparation for the future;
- quality of communications, etc.

Looking beyond the numbers, **constructive exchanges** and feedback from customers show a **shared commitment to finding the best solutions**, creating **long-term relations** and sharing strategy goals, as well as cooperating to **find solutions for the future**. They are an important part of **delivering value** throughout the entire chain, from customer to end user, and of **strengthening Thales employees' commitment** to the customer experience.



(1) "Ethics, integrity and responsible business conduct" paragraph, see p. 36.

## Long-Term Customer Satisfaction

Thales's worldwide network of 250 Key Account Managers is tasked with forging long-term relations with customers and acting as a single point of contact from the bid phase through to project completion.

The Key Account Manager also serves as Thales's ambassador to the customer and the customer's ambassador within Thales. Based on the customer's needs and expectations, the Key Account Manager develops and implements an Account Plan, which defines Thales's strategy, points of contact, objectives and budgets, for maintaining or improving customer satisfaction.



### CONSTRUCTIVE DIALOGUE THROUGH CUSTOMER SEMINARS

Thales's Air, Land and Naval Workshops are a series of new annual meetings bringing together major institutional stakeholders tasked with preparing for the future of the defence industry. The workshops aim to encourage a forward-looking dialogue to identify issues for armed forces to consider between now and 2030, before developing programmes. They are also an opportunity for Thales to present its products and services to operational personnel and fuel their thinking.

### THALES COMMITMENTS

## One team, One Thales

01

#### BE CUSTOMER CENTRIC

Listen to customers and provide them with a complete picture of Thales beyond just the activities that pertain to them.

02

#### BE COMPETITIVE

Offer competitive solutions tailored to customers' needs.

03

#### BE AN EXTENDED ENTERPRISE

Develop smooth cooperation with everyone involved in the project, whether people within Thales or outside partners.

04

#### BE CUSTOMER EXPERIENCE MINDED

Fully understand customers' operational requirements and offer them reliable equipment and maximum availability through relevant, customised service solutions.

05

#### BE PRODUCT ORIENTED

Strive to produce and deliver mature solutions that can be adapted to meet future operational or normative constraints.

06

#### BE A TRUSTED PARTNER

Develop a forward-looking partnership based on the long-term strategic visions of both Thales and its customers.

# TRANSPARENCY AND REGULAR DIALOGUE WITH INVESTORS

Thales's policy is to provide its shareholders with regular, clear and transparent information, in compliance with the financial reporting rules and practices applicable to listed companies.



As well as the **registration document**, filed with the French financial markets regulator (AMF), which provides complete information on the consolidated financial statements and associated analysis, business reports and results for each operational sector, key legal information about the Company and corporate responsibility policy, Thales also produces an **interim report**, a **shareholders newsletter**, regular **press releases** and **financial notices**. Thales also publishes this **integrated report** and a **social report**.

All Thales information documents, presentations and financial press releases are **available on the Thales website at [www.thalesgroup.com](http://www.thalesgroup.com)**.

Thales also holds **briefings** for the financial community, by teleconference where appropriate, particularly when announcing results (annual and interim financial statements and quarterly information) or important strategic or financial operations.

**Regular meetings** between Thales executives and institutional investors are held in Europe and North America, typically as part of roadshows, investor days or visits to operational sites in order to provide more details about the Group's business activities and performance.

Thales also provides members of the financial community, particularly the socially responsible investor (SRI)

community, with details about its corporate responsibility policy, including issues relating to labour relations, society and the environment, governance, international trade, corruption prevention and export control for defence and dual-use equipment and technologies.

Finally, Thales also maintains an **ongoing dialogue** with international financial analysts and institutional investors to answer their corporate responsibility and compliance questions quickly and accurately and provide them with information about the Group's business activities and strategy.

# RESPONSIBLE PURCHASING

Thales develops and manufactures integrated solutions comprising equipment, subsystems or complete systems, some of which are purchased from external suppliers. As a result, suppliers make a substantive contribution to Thales's added value and ability to deliver customer satisfaction. The Group spends the equivalent of around 50% of its revenues (€6.89bn on 31 December 2016) on purchasing.

The aim of the Thales purchasing policy is to work with a bedrock of efficient, reliable suppliers, capable of helping

the Group achieve its sales objectives while complying, in particular, with export control requirements and with

environmental, financial, ethical and social obligations as well as national and international regulations.

## Lasting Relations with Suppliers

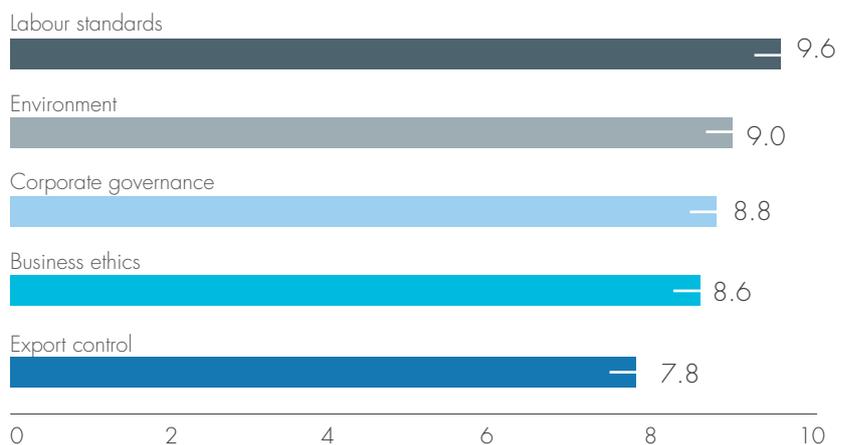
As part of its efforts to forge balanced, long-term relations with suppliers, Thales has put in place a series of measures aimed at promoting **responsible practices and behaviours** throughout the supply chain.

Thales asks its suppliers around the world to support its corporate responsibility policy by signing the Group's **Purchasing & Corporate Responsibility Charter**. In doing so, they commit to adopting the principles of the Thales Code of Ethics, the United Nations Global Compact and the OECD, particularly in the areas of **human rights, labour, the environment and prevention of corruption**.

They must also complete a **self-assessment questionnaire** concerning their engagement and performance in the main areas of corporate responsibility (nine questions on labour standards, five on environmental protection, two on corporate governance, one on business ethics and one on export control). A separate self-assessment questionnaire focuses on their **environmental maturity**.

These questionnaires also aim to help suppliers align their policies and internal

### SUPPLIERS' ESG<sup>(1)</sup> PERFORMANCE



(1) ESG: environmental, social and governance.

processes with the set of principles that Thales has adopted.

By the end of 2016, nearly **10,500 Thales suppliers** (an increase of 35% compared to 2015) had signed the Group's **Purchasing & Corporate**

**Responsibility Charter** and completed the self-assessment questionnaires. On this basis, overall supplier performance in terms of **environmental, social and governance** criteria was rated 9 on a scale of 10.

## SMEs: a Key Link



In France, over **3,800 SMEs (small and medium-sized enterprises) and MSBs (mid-sized businesses)** account for nearly **three-quarters of all Thales purchasing, or €1.9bn.**

The Group strives to develop balanced and responsible relations with these companies.

In 2010, Thales signed a **Responsible Supplier Relations Charter** to support best practices in relations between purchasers and SMEs. The charter outlines ten practices for responsible purchasing. It helps build balanced relations between suppliers and customers based on **mutual trust** and both parties' awareness of, and respect for, their respective rights and obligations.



In 2012, Thales was awarded the **Responsible Supplier Relations Quality Label** for its entities in France. The Group was one of the first four major companies selected for the award by the French government's Business Relations Mediation scheme and the French association of purchasers and purchasing managers (CDAF) in recognition of its **particularly sustainable and balanced relations with suppliers.**

Following an annual audit by an external body, Thales's label was renewed in 2013 and then again in 2014. The award was **renewed** for a further 3-year period in 2015.

### Thales's work with the French government

The **Innovative SME charter**, signed in 2012 for the scope of the Group's activities in France, aims to reinforce Thales's commitment to SMEs by building strong relationships of trust to **help them with innovation projects and to contribute to their future development**, in exchange for access to their innovative technology. The charter makes Thales more competitive by providing it with better market opportunities.

Special one-day focus events are organised jointly by Thales's Technical and Purchasing Departments for a group of innovative SMEs. The SMEs invited to these events present their solutions, which are evaluated according to a range of innovation criteria. Bilateral meetings are then set up to develop collaborative, win-win projects. In 2016, 500 innovative SMEs were involved in the Group's R&D activities in France.

As part of the same commitment to corporate responsibility, Thales signed a **bilateral agreement with the French Ministry of Defence** in 2013



(as part of the Ministry's **SME Defence Pact**), aimed in particular at facilitating access by SMEs to defence markets and establishing a balanced partnership between SMEs and prime contractors such as Thales.

### A proactive approach: the SME Pact

Thales was one of the **first companies** in France to sign the **SME Pact**, which aims to **help SMEs grow into mid-sized businesses (MSBs).**



In line with the good practices recommended by the SME Pact, in 2013, Thales launched an **annual survey** to measure the quality of its relations with a panel of more than **300 partner SMEs** in France. As part of its continuous improvement plan, Thales has committed itself to making headway with the subjects identified by the survey and presents the SMEs and MSBs concerned with the solutions and best practices it decides to adopt each year.

The Group's proactive approach has received concrete recognition every year since 2013 with the SME Pact joint monitoring committee's issuing of a favourable assessment of the actions undertaken by Thales in France in support of SMEs. In 2016, the committee awarded Thales the highest possible **"A" rating**, commending what it considered **"remarkable"** work.

# LEVERAGING HUMAN CAPITAL

The principles of social responsibility guide and shape Thales's actions and form the basis of the Group's approach to its people and business activities. The ultimate objective of Thales's commitments to social responsibility, as part of its human resources policy, is to share a set of common values as a key differentiator to boost its performance.

Aware that its success depends on **innovation, expertise, and its employees' capacity for teamwork**, Thales has chosen to invest in sustainable and responsible relations with them.

The Group's long-term strategic vision, "**Ambition 10**", places employees at the heart of the Group's growth plans. It is underpinned by a Human Resources policy that is both adapted to the

challenges faced by the Group and supported by high-quality employee relations.

Convinced that **innovation** is the product of an interdisciplinary approach and a variety of backgrounds, the Group also carried out a **particularly proactive diversity and inclusion strategy during the year**.



**TOGETHER WE  
EXPLORE A WORLD  
OF POSSIBILITIES**

Developed using employee testimonies, the "Together We" employer brand aims to attract diverse international talent by improving the experience of finding out about the Group and its business activities. It is led by the Group's Global Resourcing function, which was created in 2014 and is responsible for enhancing the Group's attractiveness and recruiting the talent needed to deploy the "Ambition 10" strategy.

## A responsible Employment Policy

The worldwide distribution of **64,071 employees**<sup>(1)</sup> (up from 62,194 in 2015) by geographical area and level of responsibility illustrates:

- its **international footprint**, with 29,608 employees, or 46.2% of the total workforce, working outside France at the end of 2016;
- its **highly qualified workforce**, 76.9% of whom hold a position equivalent to engineer, specialist or manager;

- the **presence of women**, who make up 22.6% of the global workforce;
- the proportion of **long-term jobs**, i.e., open-ended contracts (97.8%); and
- the volume of **full-time jobs** (93.4%).

**In addition, in 2016 Thales recruited 4,844**<sup>(2)</sup> **employees on open-ended contracts**, demonstrating the Group's hiring momentum, and its attractiveness to employees.

## Attracting Candidates

The internet is today the leading source of information and employment searches. For this reason, Thales continued to **enhance its presence on social media** (LinkedIn, Twitter, Viadeo and Facebook) throughout 2016. The Group had more than 230,000 followers on LinkedIn by the end of the year.

Thales also provides the **first virtual reality recruitment experience**. This unique solution, which uses Oculus Rift technology, gives users the opportunity to find out about the Group's activities in an interactive way. Since September 2015, potential candidates and students have been able to try it out at the forums and

recruitment events in which the Group participates. More than 20 such forums offered the experience in 2016.

(1) In this case, 'employees' refers to the total number of active employees.

(2) This data does not include work-study hires (1,407) in 2016, nor does it include fixed-term or apprenticeship contracts that were changed to open-ended contracts. In 2015, 4,296 employees were recruited on open-ended employment contracts.

## Developing our People

The Group has deployed a ‘**key skills management**’ approach for all of its 15 job families, centred on the identification and sharing of available technical skills. To **maintain every employee’s expertise at all times**, take account of employees’ individual aspirations in terms of their job or their professional mobility and meet the needs of Group companies, Thales has developed a **diverse training policy** in which its learning hub, Thales University, plays a key role.

In 2016, a total of 84.2% of Thales’s employees received training and 91.4% had a professional development discussion with their manager.

### INTERNATIONAL MOBILITY

As Thales pursues its strategy of expansion into emerging markets, the Group has implemented several processes to encourage international mobility.

A total of 730 Group employees, including employees taking part in the Career Plus programme, were on temporary international mobility assignments (versus 686 at end-2015). Representing all business segments, these employees came from more than 20 countries of origin and were received in some 60 host countries.

### DIGITAL TRANSFORMATION FOR KNOWLEDGE SHARING

Thales University continued its transformation plan in 2016 with a number of projects including a focus on digital learning. The plan is set to continue in 2017 and beyond. Thales University won the Bronze Brandon Hall Award in September 2016 in recognition of its corporate digital learning strategy.

### Development of a Leadership Model

Thales has taken a number of initiatives since 2015 in all of its major countries of operation aimed at **developing talents** based on the **Leadership Model**, in order to **prepare its future leaders**. These include 360° questionnaires, training centres, a project team charter and more. To date, approximately 1,750 Thales leaders have received a 360° questionnaire review based on the Leadership Model. In 2016, some 650 leaders took part in a leadership programme at a training centre.

A specific initiative known as Team-Up was also introduced during the year with the aim of creating team engagement and enthusiasm for the “Ambition 10” objectives and improving individual and collective efficiency. Thales’s Executive Committee was the first team to test the initiative, working on their collective leadership through a variety of questionnaires. Throughout 2016, Team-Up was extended to most of the Company’s top-level teams (Executive

Committees, Global Business Units and Management Committees), helping more than 300 people improve their leadership skills. The initiative will continue in 2017.

### Thales University: sharing knowledge to transform Thales

**Present in ten countries<sup>(1)</sup>**, Thales’s in-house university (Thales University) contributes to **employees’ professional development** in the various countries where the Group does business, while ensuring a **common culture** that reinforces cohesion around the Group’s key values.

In 2016, Thales University helped **roll out the Going Global strategy**, delivering more than 70 Group Key Programs around the world and spreading the Group’s **knowledge, skills and expertise** far and wide.

Through these initiatives, Thales University contributes to the **emergence of a “learning organisation”**, where all employees can play a more active role in their training and professional development.

## Constructive Social Dialogue

In all areas of common interest, Thales promotes cooperation with its employees and their representatives, and provides them with high-quality information, in particular by supporting and encouraging employee relations.

In 2016, over 60 new collective bargaining agreements were entered into within the Group.

By the end of the year, **86.5% of Thales employees worldwide were covered by collective agreements**.

### PIONEERING AGREEMENTS IN EUROPE



The IDEA agreement (Improving professional Development through Effective Anticipation), signed in 2009, sets out specific goals for improving professional development and includes a set of 20 corresponding measures.



The TALK agreement (Transparent annual Activity discussion for mutual Listening and developing professional Knowledge)<sup>(2)</sup>, signed in April 2010, provides a clear framework and guidelines for conducting annual activity discussions. It defines basic principles to ensure that discussions are held in the best possible conditions and that the rights and responsibilities of all parties are respected.

(1) France, Germany, Italy, United States, Canada, Netherlands, United Kingdom, United Arab Emirates, Australia and Singapore.

(2) Agreement on the annual activity discussion.

## A Safe and Healthy Workplace



Thales has established a dedicated organisation in order to prevent workplace health and safety risks. Within the Group, the Human Resources and Health, Safety and Environment Departments share the vast domain of **health and safety (H&S)**.

On 31 December 2016, 106 of the Group's companies (representing 82% of its global workforce) have obtained OHSAS 18001 certification, which attests to their ability to **manage and evaluate risks relating to health, safety and the environment**.

### WORK-LIFE BALANCE

The action plans negotiated at each individual company reflect the importance of applying best practices in the areas of working hours, meeting times and the use of digital technologies (email, mobile phones, etc.).

The Group framework agreement of 24 April 2015 on teleworking<sup>(1)</sup> is fully in line with this commitment to improve quality of life at work.

(1) Supplemented by company agreements.

## Encouraging Gender Equality, Diversity and Inclusion

“ At Thales, we have launched a Group-wide initiative that I am sponsoring myself to strengthen diversity in our workforce. I believe diversity is a key factor in Thales’s future success. Diversity will also help us drive innovation and creativity because it enables us to tackle problems from different angles, see things from different perspectives and generate a greater number of new ideas. ”

**Patrice Caine**  
Thales Chairman & CEO

One of the objectives of the Group’s “Ambition 10” strategic vision is to build a global, diversified company. Thales is particularly committed to promoting an **inclusive approach**, making everyone feel fulfilled in their roles without discrimination with respect to origins, gender, age, political or religious opinions, sexual orientation, union membership or disability.

### Gender equality: ambitious commitments

In early 2016, the Group’s Chairman and CEO announced ambitious commitments for the following years in terms of percentage of women hires (40%), women in positions of senior responsibility (30%) and the presence of at least three women on each Management Committee.

Within the Group, **women** (who make up 22.6% of the global workforce) are predominantly employed in **long-term, highly skilled positions**: 96.7% of women employees work under open-ended employment contracts, and 65.7% (compared with 60.5% in 2013) hold positions at a level equivalent to engineer, specialist or manager.

Thales also continued its partnership with *Elles Bougent*, a French non-profit organisation that **encourages young women to take up careers in science and technology**. Thales has 174 *Elles Bougent* sponsors within its workforce who offer advice to young women choosing a career path.

The Group multiplied its efforts to promote the career development of women employees during the year, with stereotype awareness sessions (more than 1,200 managers have attended such sessions since 2013), co-development measures to encourage the promotion of women, etc.

Finally, Thales is committed to maintaining **equal pay for men and women**. Since 2006, Thales has set aside an annual budget in France equal to 0.1% of payroll specifically dedicated to dealing with any unjustified gender pay gaps and promoting women. In all, 860 women benefited from this measure in 2016.

### Promoting cultural diversity

As an international group, Thales respects and encourages a **range of cultures** in the workplace. As labour markets become increasingly globalised, this **cultural diversity** is a significant asset for the Group. For this reason, Thales pays particular attention to recruiting local employees in all its countries of operation.

In France, the Generation Contract agreement, which was in force all throughout 2016, also supported equality of opportunity in education and encouraged diversity. One example of this commitment is the partnership between Thales and the non-profit organisation *Nos Quartiers ont des Talents* (“Our Neighbourhoods Have Talent”). At the end of 2016, a total of 83 Group employees had signed up as sponsors with this organisation.

### A DEDICATED ORGANISATION FOR A KEY COMMITMENT

To adapt its organisation to reflect this commitment to becoming a more diverse and inclusive company and structure itself to implement the related objective, the Group created a dedicated governance system in 2016, comprising:

- a **Steering Committee** made up of the members of the Group’s Executive Committee and chaired by the Chairman and CEO. The Steering Committee is responsible for defining the Group’s diversity strategy, approving the allocated resources and promoting and monitoring the fulfilment of any commitments made to this end;
- a **Diversity Board** comprising members who are representative of the Group’s various departments. The Diversity Board is primarily responsible for raising collective awareness of the concepts of inclusion, bias and stereotyping through mentoring and sponsorship initiatives and the deployment of programmes to give tangible form to Group-level commitments.

At the end of 2016, the Diversity Board identified a number of initiatives to develop a mentoring programme and launch a stereotype communications campaign.

### WOMEN MATTER

In 2016, Thales joined other companies in Europe by taking part in audit firm McKinsey’s external Women Matter survey, which aims to create a benchmark of market practices.

## Supporting employees with disabilities

Regardless of the country in which they operate, the Group's companies make a point of complying with the legal requirements and all local regulations and recommendations designed to promote disabled employment.

Many Group companies based in various countries have also adopted a series of measures aimed at going beyond the legal requirements and **promoting the employment of people with disabilities**.

In France, Thales is recognised for the quality of its policy to promote disabled employment. Further to the Group's multi-

year agreements concluded since 2004, **disabled employees made up 5.9% of the Thales workforce** at the end of 2015 – another year-on-year increase. In 2016, this rate stabilised thanks to efforts to recruit and retain people with disabilities.

In 2016, six Group sites were certified to the AFNOR X50-783 standard on disability friendly organisations, joining the five sites that were certified in 2014 and 2015. In addition, 29 sites implemented action plans that are expected to result in certification by the end of 2017<sup>(1)</sup>.

(1) For more information: See "Supporting employees with disabilities", 2016 registration document, p. 198.

### THALES'S PARTICIPATION IN EUROPEAN DISABILITY EMPLOYMENT WEEK

In November 2016, Thales participated in European Disability Employment Week at 42 sites and renewed its commitment to the government and associations to make the goal of an inclusive company a reality. The event provided an opportunity to review the concrete results of the Group's partnerships and agreements with academia and the innovative steps it has taken to promote the employment of people with disabilities. One example is "Eye School", a technology Thales developed that allows visually impaired young people to follow lessons on a white board in an ordinary classroom.

## Fostering generational diversity

The Group agreement known as the Generation Contract aims to develop the skills of older employees, improve working conditions, and take individual situations into account with respect to employees in physically demanding jobs and those who may be unable to adapt to new practices.

In application of the agreement, the Group is also committed to **developing**

**mentoring programmes** which, for a given period, pair experienced employees with new recruits or employees preparing to take on new responsibilities.

These programmes form an integral part of the **Group's skills transfer policy**.

In July 2016, employees aged 57 and older made up 18.84% of the Group's workforce.

### TO FIND OUT MORE

- See "Leveraging human capital", p. 73
- Section 5.1 "Company information" of the 2016 registration document, p. 186 and following

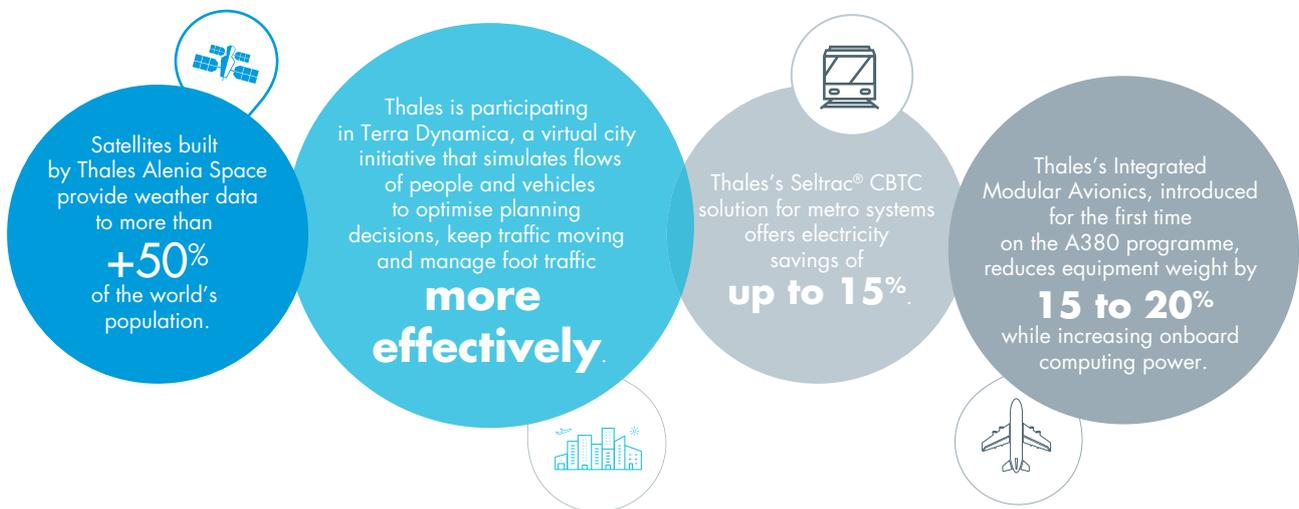


# A POLICY TO MEET TODAY'S MAJOR ENVIRONMENTAL CHALLENGES

“ If we want to attract new talent, in particular young people who are very aware of these environmental issues, if we want our employees to have the feeling they are part of a company that belongs to today's world, we should continue to implement the forward-looking policy to which we have adhered for many years. ”

**Patrice Caine**  
Thales Chairman & CEO

## Innovative solutions to benefit the environment



### THALES'S ENVIRONMENT STRATEGY IN BRIEF:



- Reduce our emissions
- Observe climate events to understand them better
- Make skies cleaner
- Develop more sustainable mobility
- Make cities smarter.



## Economics and Ecology Go Hand in Hand



Thales customers across the world are confronted with the same environmental challenges: understanding their environment, dealing with increasing urbanisation and the growth of air travel, and creating the conditions for sustainable mobility and smarter cities, while also reducing the environmental footprint of their activities.

Thales uses its technological expertise and capacity for innovation to **design innovative solutions** that help fight climate change while boosting efficiency and reducing costs.

At the same time, these solutions make **Thales more attractive in the labour market**, and bring a sense of pride for existing employees.

It is Thales policy to incorporate environmental considerations into systems and products from design to end-of-life disposal, without compromising on the strict performance, safety, security and reliability requirements of the markets we serve.

**For Thales, the environment is a driver of creativity and dynamic innovation.**

### A proactive programme

Environmental responsibility is a core ethical principle for the Group. It is directly linked to the Group's motto: Together, Safer, Everywhere. For Thales, fighting climate change and protecting the environment are part of making the world a safer place.

Since the early 2000s, Thales has been committed to a **deliberate, responsible approach to protection of the environment**. The Group's environmental policy, implemented at all its sites, aims to **reduce environmental impacts and risks** in its various activities, in its products and at the various levels of its organisation worldwide.

A dedicated team at corporate level defines the Group's environment strategy and develops reporting processes for nearly 160 Thales sites worldwide. An extensive network of environmental managers (by sites/operations and products) is in charge of deploying the policy in each Thales entity and country of operation.

### Constructive exchanges with stakeholders

Alongside technical and operational measures, Thales believes the most effective ways of delivering performance

#### TARGETED TRAINING PROGRAMMES

Dedicated training modules are offered for environment officers as well as for different job families: Purchasing, Design, Sales, etc.

In 2016, 78 purchasers (on top of the 980 trained between 2012 and 2015) and 285 engineering managers and product developers (on top of the 356 trained between 2012 and 2015) in charge of product policy were trained on how to take the environment into account in their daily work.

improvements are to share best practices and support behavioural changes.

Because any environmental initiative requires the commitment of all employees, Thales provides its personnel with a **variety of communication and information-sharing tools**, including e-learning modules, a dedicated intranet, a collaborative platform, posters, competitions, events, etc.

Before they work for Thales, suppliers must agree to meet the environmental requirements of our Purchasing and Corporate Responsibility Charter (see p. 71). At the end of 2016, 10,425 supplier sites around the world had committed to this charter (7,660 in 2015).

Across the world, Thales is committed to being a responsible neighbour. The Group pays special attention to protecting plant and animal species in areas where they need protecting, and keeps waste

and emissions to a minimum. The Group communicates with residents and local authorities in a totally transparent way, for example when activities are going to be exceptionally noisy, when emissions have exceeded the authorised threshold, or when a pollution incident occurs. 120 Thales sites, accounting for 89% of its workforce, have achieved ISO 14001 certification, the gold standard in environmental management.

Thales's actions and determination have not gone unnoticed. The Group was given a score of A- by the Carbon Disclosure Project in 2016 for the excellence and transparency of the information provided. In addition, Thales has been included in the Europe and World Dow Jones Sustainability Indices (DJSI) for the second year in a row. This recognition provides an important reference for civil society, and for investors and ratings agencies from around the world.

**Measurable results**

In six years, Thales has achieved an 18% reduction in CO<sub>2</sub> emissions by focusing on key areas such as energy, chemical substances and transport<sup>(1)</sup>.

Refurbishing and renovating buildings to higher ecological standards, replacing equipment and changing consumption habits have all helped to **improve energy efficiency**, thereby also helping to **cut CO<sub>2</sub> emissions**. Thales’s consumption of fossil fuels has been reduced by **40% in eight years**, showing the importance Thales attaches to energy management. At the same time, several sites have replaced a number of high-emission refrigerants with equipment containing more efficient refrigerant fluids.

Since 2007, Thales has been developing a **strategy to conserve natural resources** and has introduced various programmes aimed at controlling and reducing consumption. These programmes focus on areas such as energy efficiency of buildings and industrial processes, optimisation of water use, etc.

- 44% reduction in worldwide water consumption since 2008 (not including the Mulwala site in Australia);
- 18% reduction in energy consumption since 2008;
- 19% of electricity consumed generated by renewable energy sources.

Thales does everything possible to reduce the waste it sends to landfills, from **selective sorting and recycling to producing less waste in the first place**. Employee education is key. Dedicated areas are set aside for collecting and storing hazardous waste, and industrial processes are optimised to keep all kinds of waste to a minimum.

**Change in CO<sub>2</sub> emissions**

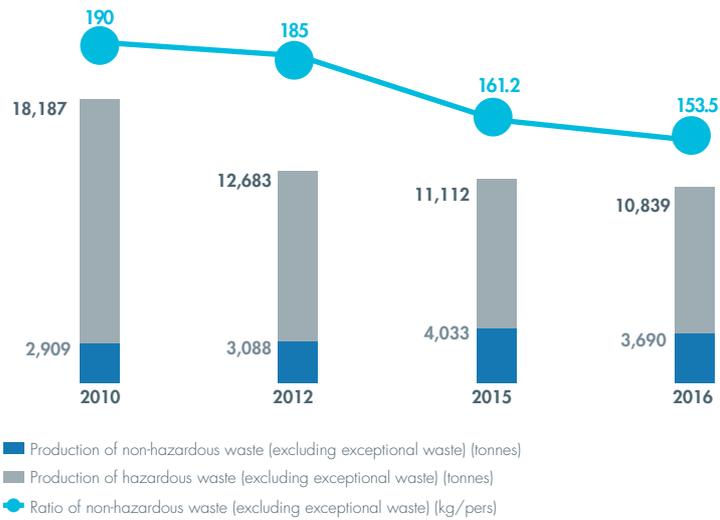
	2016	2015	2012	2010
Scope 1 <sup>(a)</sup>	81,870	87,720	96,845	121,335
Scope 2 <sup>(b)</sup>	134,372	136,451	153,312	152,633
<b>Subtotal (1 + 2)</b>	<b>216,242</b>	<b>224,171</b>	<b>250,157</b>	<b>273,968</b>
Scope 3 <sup>(c)</sup>	80,898	79,012	81,238	86,460
<b>TOTAL (in tonnes)</b>	<b>297,140</b>	<b>303,183</b>	<b>331,395</b>	<b>360,428</b>

The Scopes combine CO<sub>2</sub> emissions (calculated with emission factors from the 2012 GHG Protocol) relating to:

- (a) Gas, coal, fuel oil, substances, mobile energy sources;
- (b) Electricity and steam;
- (c) Business travel.

Data from previous years have been adjusted to reflect updated emissions factors.

**WASTE PRODUCTION**



(1) Thales’s methodology for identifying and measuring its greenhouse gas emissions is based on the Greenhouse Gas Protocol created by the World Resources Institute and the World Business Council for Sustainable Development. For more information, visit: [www.ghgprotocol.org](http://www.ghgprotocol.org).

## A Commitment to International Leadership

Thales is a key stakeholder in **major national and transnational programmes** coordinating and overseeing technological research and projects aimed at reducing environmental footprints, particularly in transportation.

### COPERNICUS

Thales is heavily involved in Copernicus, the European space programme. The programme aims to provide Europe with autonomous Earth observation and monitoring capability thanks to continuous, independent and reliable access to environmental and security data. Applications include monitoring of the marine environment, the atmosphere, land and climate change, as well as support for emergency and security operations. In terms of its space component, the programme is based extensively on a constellation of Sentinel satellites.



### CLEANSKY

Thales is a founding member of the European aerospace research programme CleanSky. The environmental goals of this programme are: 50% reduction in CO<sub>2</sub> emissions, 80% reduction in NO<sub>x</sub> (nitrogen oxide) emissions, 50% reduction in perceived noise, and a green life cycle for products (encompassing design, manufacture, maintenance and disposal/recycling). In particular, Thales is leading a CleanSky research initiative entitled "Systems for Green Operations" which should optimise aircraft fuel consumption by improving flight trajectories, in particular during the takeoff and approach phases.

### SESAR

In the air traffic sector, the European SESAR programme, in which Thales is a key player, aims to improve flight safety tenfold and bring a 5% reduction in the fuel consumption of commercial airliners by 2020 as air traffic volumes double. Other programme aims include cutting CO<sub>2</sub> emissions by 10% per flight, and reducing noise emissions during take-off and landing by 20 decibels.



### SHIFT2RAIL

Aiming to convert a significant share of road users to rail, this European initiative reflects the policy goal of achieving a 60% reduction in greenhouse gas emissions by 2050. It also aims to make rail travel more attractive and to integrate it with other modes of transport. Thales is one of the programme's eight founding members.



Thales is also engaged in partnerships with other industry players as well as research laboratories. The industrial chair dedicated to the challenges of greenhouse gas emission monitoring systems, inaugurated in December 2011, is a perfect example of this. Scientific partners supporting the professorship include the Laboratoire des Sciences du Climat et de l'Environnement (LSCE), the French atomic energy commission (CEA), the University of Versailles Saint-Quentin-en-Yvelines (UVSQ) and the French scientific research agency (CNRS), while industrial partners include Veolia Eau and Thales Alenia Space.

#### ➤ TO FIND OUT MORE

- Visit the "Environment" section on the sustainability. [thalesgroup.com](http://thalesgroup.com) website
- See section 5.2 "Environmental information", of the 2016 registration document, p. 201 and following

# A POLICY OF GLOBAL AND LOCAL COMMITMENT

Created in 2014, the Thales Foundation reflects the Group's global commitment to greater economic and social solidarity. Thales companies around the world, as major players at local level in the Group's many countries of operation, are perfectly placed to champion this commitment.

## The Thales Foundation

Thales aims to **make the world a safer place through innovation and new technology**. The **Thales Foundation**, launched in September 2014, supports this commitment by encouraging a spirit of innovation and the use of technological expertise to benefit society.

The Foundation draws on the commitment of Thales's employees, who can devote their energy and skills to the benefit of the two overall themes chosen by the Foundation:

- > **education;**
- > **humanitarian aid.**

Both of these areas, which were identified following a **joint consultation exercise** involving **more than 200 employees** around the world, sit well with the Group's corporate culture. Thales people – researchers, engineers and technicians – are passionate about technology and believe that education and collective intelligence are crucial to making the world a better place.

**In two years, the Foundation has mobilised a network of nearly 160 volunteer employees** and supported or directly funded more than 40 projects.

**THALES**  
Foundation

INNOVATING  
FOR PEOPLE

## Thirteen employee projects supported in twelve countries in 2016

A total of **13 non-profit organisations** (seven French and six international) received **financial support** as part of the second call for projects from Group employees.

In the area of **education**, the 11 winning projects aim to facilitate access to training by using digital tools, increase exposure to science in school or leverage

innovative teaching methods to prevent drop outs. They are being carried out in Africa, notably Burkina Faso, Liberia and Mali, as well as in Cambodia, the United States, Haiti and Mexico.

The two winning humanitarian projects aim to **mitigate risks related to natural disasters** in India and Nepal.

In all, the projects benefit nearly 15,000 children and teenagers as well as train adults in the various tools and methods to ensure ongoing success. By promoting these projects within the Group, the Foundation also convinced an additional 35 employees to **volunteer** alongside the 13 project sponsors.

## The 13 projects supported in 2016

Project focus area	Organisation supported	Project location
<b>Digital education</b>		
Kaléidoscope: Science and the new contemporary circus	Acer MJO/Acer Russia	Saint Petersburg, Russia
Creation of a rural science education centre	Solidarité Développement Samako	Samako, Mali
Creation of a multimedia e-learning centre	Five Hearts	Niamtougou, Togo
Intro to computer science	Mineke Foundation	Dabwe Town and Gardnersville, Liberia
Digital initiation	LAAFI	Koudougou, Burkina Faso
Interactive Multimedia Techniques for Accessing the Digital World	Tèt Kole	Port-au-Prince, Haiti
<b>Classroom innovation</b>		
Use of an accelerated education method in Cambodia	Pour un sourire d'enfant (PSE)	5 provinces, Cambodia
Inspiring change	Fundación SUM	Mexico City, Mexico
<b>Science education</b>		
3D printer at school	Stichting Science 4 Kids	Huizen, Netherlands
Science education format in Happy Chandara	Toutes à l'école	Phnom Penh, Cambodia
"Liter of Light" workshop	Public Based Learning	Melbourne, United States
<b>Humanitarian response</b>		
School safety for the Tibetan community	Geohazards Society	Kangra, India
Anti-seismic buildings in rural Nepal	Orche Nepal	Gatlang, Rasuwa District, Nepal



## FOCUS ON FOUR WINNING PROJECTS

AN EDUCATIONAL PATHWAY TO INSPIRE CHANGE IN MEXICO

**Mexico's Fundación SUM aims to actively involve young talent in the entrepreneurial ecosystem.**

**Project:** Run training workshops to teach business acumen and innovation to 100 young people from low-income neighbourhoods in Mexico in order to improve school performance and develop personal and professional skills.

**Sponsor:** Evelyn Loreda Lara, Innovation Manager, Thales Mexico (Mexico City).



A MULTIMEDIA CENTRE FOR E-LEARNING IN TOGO

**French non-profit organisation Five Hearts seeks to extend schooling and medical care to disadvantaged children in Togo.**

**Project:** Set up a multimedia e-learning centre in Niamtougou; install learning tools and train tutors for 200 children.

**Sponsor:** Damien Gillette, Project Manager, Thales Communications & Security, Gennevilliers (France).

**36 Thales volunteers** actively support Five Hearts.



CREATION OF A RURAL SCIENCE EDUCATION CENTRE IN MALI

**The Association Solidarité Développement Samako works to promote science education in rural areas of Mali.**

**Project:** Construction and equipment of a science education centre (three spaces: Laboratory, Computer Science and Interactive Learning), built with eco-friendly materials and powered by solar energy; teacher training.

**Sponsor:** Adama Diarra, Developer Architect, Thales Avionics, Mérignac (France).



ANTI-SEISMIC BUILDINGS IN RURAL NEPAL

**Spanish non-profit organisation Orche Nepal carries out projects in the areas of health, education and the environment to assist villages in Nepal.**

**Project:** Renovate the water supply network and build pilot houses using anti-seismic techniques and local materials to reduce the risk of homes being damaged or collapsing and thereby limit the number of potential victims among Getlang's 3,000 inhabitants.

**Sponsor:** Maria-Belen Sanchez Esguevillas, Engineer, Thales Alenia Space, Madrid (Spain).



**PILOT PROGRAMMES**

Pilot programmes are co-developed by the Thales Foundation and its partners. They are **ambitious, innovative and designed to have a real social impact**. The Foundation renewed two education programmes in France in September 2016, with the aim of increasing its regional impact:

- **Savanturiers de la High Tech (High-tech Explorers)** is a project to encourage learning through research, developed in a classroom setting and sponsored by Thales engineers. The approach uses research ethics and methods as a model for ambitious, collaborative learning. At end-2016, a total of 20 engineers had gotten involved alongside teachers, including more than half in the city of Gennevilliers. The goal is to introduce 500 children and teachers to this approach;
- **Voyageurs du code (Code Travellers)** is an initiative led by non-profit organisation Bibliothèque Sans Frontières (Libraries Without Borders) that aims to improve computer literacy among young people in low-income neighbourhoods as part of a community approach based on sharing knowledge. Introductory and training workshops in coding are taught by the networks' volunteers, which include Thales employees, as part of clubs set up by local libraries and media centres. In 2017, the organisation aims to create 500 community clubs with support from partners.

**ROUND OFF YOUR PAY: CHARITABLE GIVING**

In May 2016, the Thales Foundation launched the Round Off Your Pay programme among Thales employees in France.

Designed by social enterprise microDON, the initiative lets employees **round down their pay to the nearest euro and donate the excess to an outreach project**, with an option of giving up to €10 extra.

All donations are paid to microDON, with Thales committing to match employees' contributions.

In the past eight months, nearly **2,770 employees** have signed up to participate in this innovative giving tool, **raising €124,000** in support of four charity projects selected by the Foundation and employees before the start of the programme.

Beneficiaries include:

- **Planète Urgence** project to distribute school kits in several African countries;
- **Aide et Action** project to create a learning platform and teaching tools to educate students in France and Senegal about community values;
- **Bibliothèques Sans Frontières** project to send "Ideas Box" media kits to children in low-income neighbourhoods in France;
- **Télécoms Sans Frontières** project to re-establish communication networks following humanitarian crises.

Led by government-approved humanitarian organisations, these four projects enable the Foundation to support initiatives that spread its values and address social challenges.

**A NETWORK OF 2,000 EMPLOYEES**

In order to promote the work of the Foundation and to **identify skills** and outreach projects put forward by employees and local non-profit organisations, the Foundation relies on a network of **25 ambassadors** at around 20 Group sites.

Over the past two years, nearly **160 employees** have volunteered to **contribute to Foundation projects**, and almost 2,000 have shown an interest in these themes and initiatives by registering on the Foundation's dedicated collaborative platform.

**MAKING SCIENCE CHILD'S PLAY**

As part of the **Les Savanturiers – A scientist in my classroom** project, employee volunteers from the Thales site in Gennevilliers – most of them engineers – shared their scientific expertise with students and their teachers while sparking their curiosity and interest in science. Volunteers focused particularly on robotics, helping children in primary and secondary schools to programme tablets used to control small robots. Students were able to experience the challenges of robotics and the importance of working as a team on a scientific project, in a fun and collaborative way. By teaching them scientific principles, the programme also aims to make children developers rather than just users of technology.

*"The children in the Year 6 class I sponsored learned how to code mini-robots, using increasingly complex programmes before working as a team on genuinely challenging tasks. In addition to computer programming, they learned how to share ideas and communicate to move their project forward, which is the kind of situation we see every day at Thales."*

**Amine Hjej, Systems Engineer, Foundation ambassador and Les Savanturiers sponsor**

*"I mentored a class of Grade 4 students in Gennevilliers for several months and was impressed by their scientific curiosity and by how quickly they took to manipulating the robots and the software used to control them. It was really important for me to teach them not to be afraid of new technology... I was able to do that thanks to the teaching methods used with the help of the teachers at the primary school and the Les Savanturiers team."*

**Anaïs Benrabia, Systems Engineer, Les Savanturiers sponsor**

**➤ TO FIND OUT MORE**

[foundation.thalesgroup.com](http://foundation.thalesgroup.com)

## Policy at Country Level

In many of the Group's countries of operation, **Thales companies have a prominent role in the community** and are **major players in the local economy and employment market**.

Thales's policy in each country is to develop **close ties with economic and other players in society**, local institutions and communities. To the greatest extent possible, its sub-contractors and suppliers are chosen locally in order to support regional business.

### A key contribution in France

In France, Thales aims to **involve all of the relevant players in its different employment catchment areas** in the development of regional employment and skills management plans. This strategy takes into account the specific characteristics of the regions in question as well as Thales's local challenges.

Thales has defined **seven employment catchment areas** to coordinate its activities more effectively in partnership with local and regional authorities, economic and other players in society (including Geris Consultants), schools, universities and training centres.

**Geris Consultants**, a Thales entity, helps create permanent, sustainable job opportunities in areas affected by industrial job losses by making its **expertise** available to other companies and local authorities in order to provide **guidance and financial assistance** to developing SMEs/SMLs. Regeneration projects led by Geris Consultants since 2009 have resulted in the **creation of more than 4,500 jobs in France** (including 191 in 2016) with approximately 650 SMEs/SMLs.

It also conducts trial programmes in the field of human resources, with the aim of **developing the skills of SMEs/SMLs** working in its industries or the regions where it operates. The **Pass'Compétences** programme, for example, is aimed at boosting the development of SMEs by assigning them experts from major groups (e.g. Thales, Alcatel-Lucent, Schneider Electric, etc.) for secondments lasting between 12 and 18 months.

Geris Consultants also works with Thales's HR teams on the **Parcours Partagé d'Apprentissage** programme, which organises apprenticeships alternating between major groups and SMEs/SMLs.

## Engagement at local level

Throughout the world, many Group companies support local non-profit organisations by providing financial and material support. A few examples in 2016:

### > SOUTH AFRICA 01

Two multi-year partnerships have been launched to support the teaching of science. The Move to Life project aims to give young children a taste for maths and scientific reasoning using checkers. The Fast Tracking Pathways to Success programme offers preparation and support for students as they **develop scientific skills**, which are considered critical for South Africa.

### > CANADA 02

As each year in the past, Thales encouraged its employees to take part in fund-raising for United Way, to **help families with financial difficulties**, and for the Canadian Red Cross, to assist families affected by the **Fort McMurray wildfire**.

### > CHINA 03

Thales has formed a partnership with Cedar Foundation, a non-profit organisation that offers support for underprivileged students. As part of the partnership, students are offered visits to Thales sites, **professional development workshops** and a **mentoring programme** to ease their integration into the workforce. Thales's communication team also lends its skills to **more effectively promote Cedar Foundation and train its teams**.

### > SPAIN 04

Thales continued its **social engagement** commitments in 2016 by making donations in kind to charitable organisations. More than **50 pieces of computer hardware** were thus donated by employees to the partner organisations. In addition, a campaign held on Thales sites saw 1,000 kilogrammes of foodstuffs collected, thanks to the efforts of 500 employees.

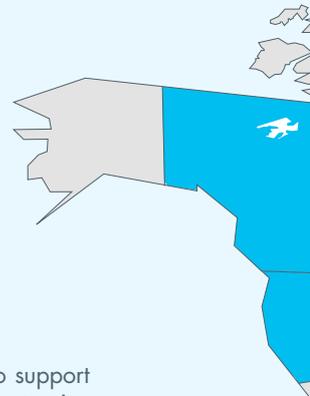
### > UNITED STATES 05

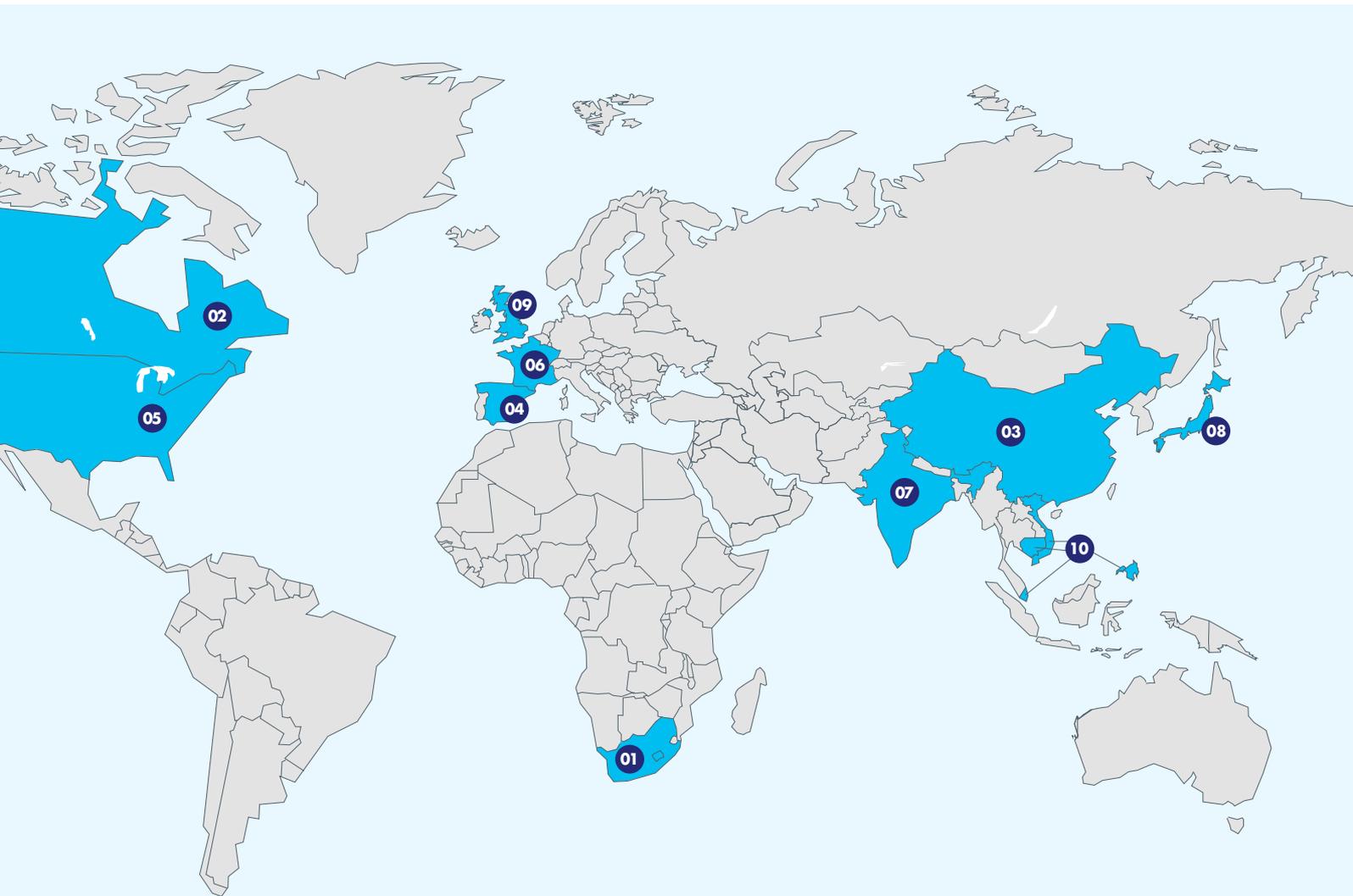
In 2016, Thales once again supported student participation and selection as part of the Team America Rocketry Challenge, a national science competition that provides assistance to 4,000 students interested in a career in the industry.

Thales employees also helped to **collect school supplies** for Boys Town, and more than 100 employee volunteers gave their time to collecting and distributing food donations.

### > FRANCE 06

In 2006, Thales signed a **defence partner agreement** to support military reservists on its payroll. The Group's management has continuously renewed and furthered this community commitment, as seen in its **support for the National Guard**, created in October 2016 in France.





Thales's Reservists Club for French servicemen and women has nearly **200 members, employees who are both active reservists and ordinary citizens**, who serve for an average of 15 to 25 days at a time. Some have served in **national surveillance missions** (Sentinelle, Vigipirate) since the declaration of a state of emergency in France following terrorist attacks in 2015.

➤ **INDIA 07**

Thales India provides financial support to the Prime Minister's National Relief Fund, which **helps the families of victims of natural disasters and major accidents** in India.

➤ **JAPAN 08**

In 2016, Thales **donated JPY 100,000** to coincide with the commemoration of the 11 March 2010 earthquake. Since 2012, employees have volunteered

for the NADIA project, which offers **assistance to victims of the Tohoku earthquake** in the city of Ishinomaki in north-eastern Japan.

➤ **UNITED KINGDOM 09**

Thales UK employees are highly involved in several **projects to inspire and motivate young people to choose science careers**. Thales supports and encourages its young employees to take part in a national event on science, technology, engineering and mathematics (STEM), which targets some 70,000 youths.

The Classroom to Thales Project has seen several employee volunteers give talks on science and engineering to more than 3,000 students in 29 schools. The Teach First initiative offers **assistance to science teachers** in disadvantaged educational areas.

And a networking event to **attract women to Thales's scientific job roles**

has been organised for young girls from low-income areas in partnership with schools.

➤ **SINGAPORE/CAMBODIA, THE PHILIPPINES AND VIETNAM 10**

In Asia, Thales supports Passerelles numériques (Digital Gateways), a non-profit organisation that helps young people from underprivileged backgrounds **access qualified employment in the area of new technologies**.

As part of this partnership, Thales **financed students' education for two years** under Passerelles Numériques programmes in three countries in South-East Asia, until 20 graduated with an IT diploma. Thales also sets up humanitarian missions for employees who wish to take leave so they can volunteer their skills to advance the organisation's projects.



# INDICATORS

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# ENVIRONMENT

## TO FIND OUT MORE

Section 5.2 "Environmental information", see p. 201 and following of the 2016 registration document.

The information in the table below allows the **Group's environmental performance**<sup>(1)</sup> to be assessed on a like-for-like basis. In 2016, the scope comprised 33 countries and 140 sites. This scope represents 97% of revenues and 98% of the Group's workforce (2015 is the base year for the 2016-2018 goals).

	Units	2008-2015 change (at constant 2008 scope)	2015	2016	2015-2016
<b>Energy</b>					
Electricity consumption	TOE x 1,000	-12%	132	131	-1%
Electricity consumption per unit of revenue	TOE/€m	-27%	9.7	9.08	-6%
Fossil fuel consumption	TOE x 1,000	-38%	21	21.9	4%
Fossil fuel consumption per unit of revenue	TOE/€m	-48%	1.54	1.52	-1%
Total energy consumption	TOE x 1,000	-17%	157	154	-2%
Total energy consumption per unit of revenue	TOE/€m	-31%	11.51	10.72	-7%
<b>Water</b>					
Water consumption	m <sup>3</sup> x 1,000	-26%	1,601	1,584	-1%
Water consumption per unit of revenue	m <sup>3</sup> /€m	-39%	117	110	-6%
<b>Waste</b>					
Total waste production <sup>(a)</sup>	tonnes	-24%	14,913 <sup>(c)</sup>	14,529 <sup>(c)</sup>	-2.6%
Total production of waste per unit of revenue <sup>(a)</sup>	kg/€m	-36%	1.09 <sup>(c)</sup>	1.01 <sup>(c)</sup>	-7.2%
Ratio of non-hazardous waste <sup>(a)</sup>	%		73 <sup>(c)</sup>	75 <sup>(c)</sup>	2.3%
Non-hazardous waste per person <sup>(a)</sup>	kg/pers <sup>(a)</sup>	-29%	161.1 <sup>(c)</sup>	153.5 <sup>(c)</sup>	-4.7%
Non-hazardous waste recycling rate	%	45%	64 <sup>(c)</sup>	51 <sup>(c)</sup>	-21.3%
Hazardous waste recycling rate	%	-45%	19	24.8	32%
<b>Discharges</b>					
Industrial wastewater discharges	m <sup>3</sup> x 1,000	-1%	563	652	16%
Atmospheric discharges	tonnes	-30%	917	993	8%
<b>CO<sub>2</sub></b>					
CO <sub>2</sub> emissions from energy use	CO <sub>2</sub> tonnes x 1,000	-23%	187 <sup>(b)</sup>	186	-0.3%
CO <sub>2</sub> emissions from energy use per unit of revenue	kg de CO <sub>2</sub> /€m	-36%	14 <sup>(b)</sup>	13	-5%
CO <sub>2</sub> emissions linked to Kyoto Protocol substances (Kyoto + R22)	CO <sub>2</sub> tonnes x 1,000	-23%	35 <sup>(b)</sup>	27	-22%
of which CO <sub>2</sub> emissions linked to SF <sub>6</sub>	CO <sub>2</sub> tonnes x 1,000	-78%	6.7 <sup>(b)</sup>	1.6	-77%
CO <sub>2</sub> emissions from transport (Group-wide)	CO <sub>2</sub> tonnes x 1,000	-1%	79 <sup>(b)</sup>	81	2%
CO <sub>2</sub> emissions from transport per unit of revenue	kg CO <sub>2</sub> /€m	-17%	5.8 <sup>(b)</sup>	5.6	-3%
<b>CO<sub>2</sub> scopes according to GHG Protocol</b>					
Scope 1 (gas, fuel oil, coal, substances, mobile energy sources)	CO <sub>2</sub> tonnes x 1,000	-35%	88 <sup>(b)</sup>	82	-7%
Scope 2 (electricity, steam)	CO <sub>2</sub> tonnes x 1,000	-13%	136 <sup>(b)</sup>	134	-2%
Scope 3 (business travel by air, rail, road)	CO <sub>2</sub> tonnes x 1,000	-1%	79 <sup>(b)</sup>	81	2%
<b>TOTAL SCOPES 1, 2 AND 3</b>	CO <sub>2</sub> tonnes x 1,000	<b>-17%</b>	<b>303<sup>(b)</sup></b>	<b>297</b>	<b>-2%</b>
<b>TOTAL SCOPES 1, 2 AND 3 PER UNIT OF REVENUE</b>	kg CO <sub>2</sub> /€m	<b>-31%</b>	<b>22<sup>(b)</sup></b>	<b>21</b>	<b>-7%</b>
<b>Miscellaneous</b>					
ISO 14001 certified entities			117	120	
Staff concerned as percentage of total workforce	%		90%	89%	

(a) Excluding exceptional waste.

(b) Values adjusted to reflect updated emissions factors.

(c) Excluding data on non-hazardous waste from the Templecombe UK site.

(1) Indicators reviewed by Mazars for the 2016 reporting period and included in limited assurance conclusion.

# SOCIAL

## TO FIND OUT MORE

Section 5.1 "Human resources information", see p. 186 and following of the 2016 registration document

The information in the table below allows the **Thales group's social performance**<sup>(1)</sup> to be assessed. In 2016, the Group's scope of consolidation changed slightly due to acquisitions and disposals<sup>(2)</sup>.

**Payroll**, including profit-sharing and incentives (excluding DCNS) totalled **€6,025m** in 2016, compared with €5,784m in 2015. The €241m increase in payroll from 2015 to 2016 includes a negative foreign exchange rate effect of €78m. Note: the changes in payroll in France shown in this table differ from the progression in average compensation of the headcount because it takes into account changes in headcount and its structure and changes in the age pyramid, as well as developments in profit-sharing and incentive schemes.

Indicators	2016 data	Scope
<b>TOTAL WORKFORCE <sup>(a)</sup> AT 31 DEC. 2016</b>	<b>64,071</b>	<b>100%</b>
<b>Employees by country</b>		
France	34,463	100%
Europe (France included)	52,122	100%
Outside France	29,608	100%
<b>Headcount by gender</b>		
% of women	22.6%	98.64%
% of men	77.4%	98.64%
% of women in France	24%	100%
<b>Employees by type of contract</b>		
% under open-ended contracts	97.8%	98.64%
% of full-time contracts	93.4%	98.64%
<b>Employees by age bracket</b>		
<30	10.6%	98.64%
30-39	23%	98.64%
40-50	30.2%	98.64%
>50	36.2%	98.64%
<b>Employees by level of responsibility (LR)</b>		
LR 1 to 6	14,569	98.63%
LR 7 to 12	48,625	98.63%
Number of temporary employees	2,972	98.63%
<b>Departures by type</b>		
Number of departures	4,616	97.1%
% resignations	42%	97.1%
% redundancies	18%	97.1%
% retirements	23%	97.1%
% of expiries of short-term contracts	12%	97.1%
% other departures (including deaths)	2%	97.1%

(1) Indicators reviewed by Mazars for the 2016 reporting period and included in limited assurance conclusion.

(2) Acquisition of Vormetric in the United States (210 employees), acquisition of Aviovision in Belgium (24 employees) and acquisition of RUAG's opto-electronics business by Thales Alenia Space in Switzerland (72 employees).

(a) Headcounts shown are active headcounts.

## Social (cont'd)

➤ TO FIND OUT MORE

Section 5.1 "Human resources information", see p. 186 and following of the 2016 registration document

Indicators	2016 data	Scope
<b>Recruitment</b>		
Total number of recruitments	7,206	97.24%
Of which open-ended contracts	4,844	97.24%
Of which short-term contracts	955	97.24%
Of which work-study contracts	1,407	97.24%
% women	30%	97.24%
<b>Training</b>		
% of employees attending a PDD <sup>(b)</sup>	91.4%	98.45%
% of employees receiving training	84.2%	98.6%
% of women receiving training	86.7%	98.6%
Average training hours per employee	20.03	96.4%
Total training hours	1,237,487	96.4%
% of employees covered by a collective bargaining agreement	86.5%	98.7%
% of employees covered by a regulation on working time	93.5%	98.7%
<b>Health and safety</b>		
Overall absenteeism rate (World)	2.42%	93.29%
Total absenteeism rate – France (social report) excluding parental leave	2.57%	100%
Overall absenteeism rate in France (social report)	3.27%	100%
Accident severity rate (World)	0.05	93.88%
Accident severity rate (France)	0.06	100%
Accident frequency rate (World)	2.15	93.88%
Accident frequency rate (France)	2.42	100%
Days lost for work-related illness (France)	1,474	100%
<b>Other</b>		
Staff costs (world)	€6.025bn	100% financial consolidation
Proportion of employees with disabilities (France)	5.9%	
Number of jobs created by Géris in 2016	191	
EU suppliers as a proportion of total purchasing spend	74%	
French suppliers as a percentage of total purchasing spend	40%	
Industrial subcontracting	€1.67bn	

(b) PDD: Professional Development Discussion.

# COMMUNITY ENGAGEMENT

## ➤ TO FIND OUT MORE

Section 5.3 “Societal information”, see p. 213 and following of the 2016 registration document

The information in the table below allows the **Group’s societal performance** to be assessed, particularly in the area of **business ethics**<sup>(1)</sup>.

Description	2016 data	Comments/References
<b>G4-SO3</b> Number of operational entities that assessed risks of corruption	118	<p>Corruption risks and other major risks have been identified in Thales’s global risk management system as one of the major risks facing the Company.</p> <p>As part of the Group’s self-assessment and internal control policy, the 118 main operational entities conducted a self-assessment of their exposure to the risk of corruption and, in certain cases, defined an action plan with a view to continually improving the system.</p> <p>See the section on Internal control and risk management – Ongoing improvement process – “Self-assessment and ongoing improvement of corporate risk management”, p. 141 of 2016 registration document.</p>
<b>G4-SO4</b> Communication and training in anti-corruption policies and procedures	1,346	<p>This four-hour baseline training course is delivered at the various Thales University campuses around the world or directly on-site by two multilingual trainers specialising in business ethics. Other ad hoc training is also given in specific environments, such as for senior executives and country teams. In addition, an e-learning programme comprising three 30-minute modules (in French, English and German) is available to all Group employees.</p> <p>See “Business Ethics”, p. 20 of 2016 registration document.</p>
<b>G4-SO5</b> Proven cases of corruption and action taken	None reported	<p>Thales has a global professional alert system, authorised by French data protection authority CNIL in 2011, enabling all of the Group’s employees to report acts in the areas of accounting, finance or banking as well as anti-competitive practices and anti-corruption, in addition to acts of discrimination, harassment or failure to comply with health and safety legislation.</p> <p>Certain countries in which Thales has a significant presence have supplemented this system with a local professional alert system, notably the United Kingdom, the United States and Australia.</p> <p>None of the incidents reported in 2016 concerned a case of corruption.</p> <p>See “Anti-corruption”, p. 218 of 2016 registration document.</p>

(1) Indicators reviewed by Mazars for the 2016 reporting period and included in limited assurance conclusion.

We value your opinion  
on this document.

**Please send your comments to:**  
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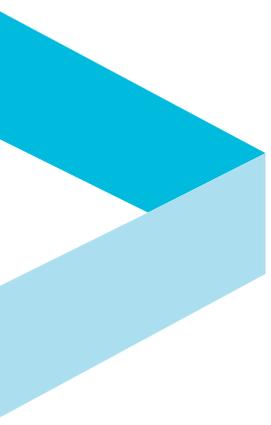
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**Thales thanks Group employees for  
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# NOTES



A series of horizontal dotted lines spanning the width of the page, providing a template for writing notes.

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