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2016 ANNUAL REPORT
ANSALDO STS **GROUP**

Ansaldo STS

A Hitachi Group Company

2016 Annual Report
Ansaldo STS **Group**

(Translation from the Italian original which remains the definitive version)

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1 Company bodies and Committees

BOARD OF DIRECTORS

(elected by the shareholders on 13 May 2016
for the 2016 - 2018 three-year period)

ALISTAIR DORMER (1)
Chairperson

ALBERTO DE BENEDICTIS (2) (3) (4)
Deputy chairperson*

ANDREW THOMAS BARR (1)
Chief executive officer and general manager

ROSA CIPRIOTTI (4)

MICHELE ALBERTO FABIANO CRISOSTOMO ** (4)

MARIO GARRAFFO (2) (3) (4)

FABIO LABRUNA (4)

KATHERINE JANE MINGAY (1)

KATHARINE ROSALIND PAINTER (2) (3) (4)

FRANCESCO GIANNI***
Board secretary

BOARD OF STATUTORY AUDITORS

(for the 2014 - 2016 three-year period)

GIACINTO SARUBBI
Chairperson

RENATO RIGHETTI

MARIA ENRICA SPINARDI

SUBSTITUTE STATUTORY AUDITORS

(for the 2014 - 2016 three-year period)

FABRIZIO RICCARDO DI GIUSTO

GIORGIO MOSCI

DANIELA ROSINA

INDEPENDENT AUDITORS

(for the 2016 - 2024 period)

EY S.p.A. ****

(1) Member of the executive committee (i.e. bid committee)

(2) Member of the risk and control committee

(3) Member of the appointments and remuneration committee

(4) Member meeting independence requirements

* Position held by Katherine Jane Mingay from 13 May 2016 to 28 October 2016. Alberto De Benedictis was appointed deputy chairperson by the board of directors during the meeting of 28 October 2016.

** Michele Alberto Fabiano Crisostomo was appointed director of Ansaldo STS S.p.A. by the shareholders' meeting of 19 January 2017, to replace Giuseppe Bivona who, pursuant to art. 2393 of the Italian Civil Code, was removed from the position of company director.

*** Appointed on 16 May 2016 to replace Filippo Corsi.

**** Following the resignation of KPMG S.p.A. on 14 November 2016, the shareholders' meeting of 19 January 2017 appointed the independent auditors EY S.p.A. to audit the company's accounts for the years 2016-2024.

Directors' report at **31 December 2016**

2 Financial position and results of operations of the Group

2.1 Introduction

Ansaldo STS Group recognised a profit of €77.9 million for 2016 (€93.0 million in 2015), revenue of €1,327.4 million (€1,383.8 million in 2015), ROS of 9.6% (9.8% in 2015) and a positive net financial position of €338.0 million (€338.7 in 2015).

The international context, which has also been characterised by unexpected events, the increasingly complex and competitive reference market and exceptional individual events dealt with by the Company, make the group's financial position and the results of operations even more impressive, thanks to the professional skills and qualities of your company's resources.

The change in the shareholding structure, the results of the takeover bid, the Company's updated governance and events relating to deeds carried out by the individual shareholders have been subject to specific, detailed corporate communications in compliance with regulations in force, and therefore are already known to the market.

New orders for the 2016, increasing Orders' Backlog (please refer to Note 2.4 “Non-Gaap Alternative Performance Indicators and other indicators” for the definition of Orders' Backlog) totalled €1,475.8 million (€1,336.0 million in 2015) and were characterised by projects relating to the Glasgow and Taipei (San-Ying line) metros, the supply of signalling systems for the modernisation of the Brussels metro, contracts in Italy relating to the technological upgrade of the Florence-Rome high-speed line and the awarding of works for the supply of technological systems relating to the Milan-Genoa high-speed line's railway signalling systems.

With respect to the positive operating performance, in particular, activities relating to certain functional lots for the technological improvement of the Turin-Padua section were completed and delivered, technological systems for the Treviglio-Brescia high-speed line in Italy and for the Sudokwon High Speed Line in South Korea were delivered and the satellite technology operating phase has started in Australia (please refer to Note 2.4 “Non-Gaap Alternative Performance Indicators and other indicators” for the definition of Operating profit – EBIT, as measure of the Group's operating performance).

In order to constantly streamline the group's corporate and organisational structure, the process of winding up the Company “Kazakhstan TZ-Ansaldo STS Italy LLP” was completed in November 2016.

2.2 Key performance indicators

(€'000)	31.12.2016	31.12.2015	Change
New orders*	**1,475,836**	1,336,027	139,809
Order backlog*	**6,488,378**	6,410,362	78,016
Revenue	**1,327,386**	1,383,837	(56,451)
Operating profit (EBIT)*	**126,801**	135,769	(8,968)
Adjusted EBIT*	**126,801**	135,769	(8,968)
Profit for the year	**77,903**	93,036	(15,133)
Net working capital*	**120,532**	64,481	56,051
Net invested capital*	**369,807**	316,419	53,388
Net financial position*	**(338,039)**	(338,674)	635
Free operating cash flow*	**37,944**	87,701	(49,757)
ROS*	**9.6%**	9.8%	-0.2 p.p.
ROE*	**11.4%**	15.1%	-3.7 p.p.
EVA*	**57,861**	65,788	(7,927)
Research and development*	**36,688**	36,914	(226)
Headcount (no.)	**3,951**	3,772	179

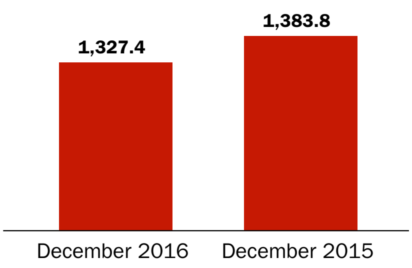
* please refer to Note 2.4 *Non-Gaap Alternative Performance Indicators* and other indicators for the definition of the performance indicators presented in the table above.

Orders in 2016 totalled €1,475.8 million compared to €1,336.0 million for 2015; the order backlog amounted to €6,488.4 million (€6,410.4 million in 2015).

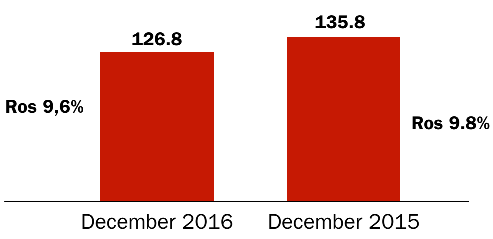
Revenue amounted to €1,327.4 million, down €56.5 million with respect to €1,383.8 million in 2015; the decrease, resulting in large part from reaching the final phase of several significant contracts in the Asia-Pacific area, was only partially offset by contracts acquired in recent years.

Operating profit (EBIT) came to €126.8 million, down €9.0 million on the previous year (€135.8 million); ROS was 9.6% (9.8% in 2015).
The profit for the year totalled €77.9 million (€93.0 million for 2015).
The group's net financial position came to -€338.0 million, basically in line with -€338.7 million at 31 December 2015.
Research and development expense recognised directly in profit or loss amounted to €36.7 million, in line with the amount in the previous year (€36.9 million).
The group's headcount came to 3,951 employees compared to 3,772 at 31 December 2015. The average headcount was 3,828 (3,748 in 2015).

Revenue (€M)



EBIT (€M)



The reclassified income statement, reclassified statement of financial position, reclassified net financial position and reclassified statement of cash flows follow to provide further disclosure on the group's financial position, results of operations and cash flows.

Reclassified income statement (€'000)

Reclassified income statement (€'000)	**31.12.2016**	31.12.2015
Revenue	**1,327,386**	**1,383,837**
Purchases and personnel expense (*)	(1,182,421)	(1,233,338)
Amortisation, depreciation and impairment losses	(18,325)	(18,725)
Other net operating income (**)	674	4,259
Change in work-in-progress, semi-finished products and finished goods	(513)	(264)
Adjusted EBIT	**126,801**	**135,769**
Restructuring costs	-	-
Operating profit (EBIT)	**126,801**	**135,769**
Net financial income (expense)	(10,152)	943
Income taxes	(38,746)	(43,676)
Profit (loss) from discontinued operations	-	-
Profit for the year	**77,903**	**93,036**
attributable to the owners of the parent	*77,968*	*93,228*
attributable to non-controlling interests	*(65)*	*(192)*
Earnings per share		
Basic and diluted	0.39	0.47

Reconciliation between the reclassified income statement and the income statement included in the consolidated financial statements:
(*) Includes the captions "Purchases", "Services", "Personnel expense" (net of restructuring costs) and "Accrual to (use of) the provision for expected losses to complete contracts" net of "Internal work capitalised".
(**) Includes the net amount of "Other operating income" and "Other operating expense" (net of restructuring costs and accrual to (use of) the provision for expected losses to complete contracts).

Briefly:
Operating profit decreased by €9.0 million compared to the previous year. In particular, the effect of lower Revenue volumes, along with the impact on the margin of the results of the arbitration regarding the project in Libya (€8.1 million) and the recognition of costs correlated with settlements taking place following the resignation of strategic figures in the Company (€2.4 million), were partially offset by the improved mix of contracts worked on in the two periods subject to comparison.
The overall deterioration of financial expense and income derived primarily from the results of the above-mentioned dispute in Libya (€7.7 million).
The combined effect of the worse operating profit and the overall total financial expense and income along with the lower tax burden, due in practice to the lower taxable income, generated the total decline in profit for the year (€15.1 million).

Statement of financial position (€'000)	**31.12.2016**	31.12.2015
Non-current assets	310,406	307,250
Non-current liabilities	(61,131)	(55,312)
	249,275	**251,938**
Inventories	125,067	121,217
Contract work in progress	358,865	346,353
Trade receivables	728,852	663,558
Trade payables	(458,119)	(415,973)
Progress payments and advances from customers	(598,012)	(635,785)
Working capital	**156,653**	**79,370**
Provisions for risks and charges	(14,040)	(11,126)
Other liabilities, net (*)	(22,081)	(3,763)
Net working capital	**120,532**	**64,481**
Net invested capital	**369,807**	**316,419**
Equity attributable to the owners of the parent	707,626	654,787
Equity attributable to non-controlling interests	220	306
Equity	**707,846**	**655,093**
Non-current assets held for sale	-	-
Net financial position	**(338,039)**	**(338,674)**

* Includes "Tax assets" and "Other current assets", net of "Tax liabilities" and "Other current liabilities".

Net invested capital amounted to €369.8 million compared to €316.4 million for 2015.
The increase of €53.4 million was substantially due to the rise in net working capital (€56.1 million). In particular, the increase in trade receivables was offset by the rise in trade payables and other liabilities, while the reduction in advances from customers (also correlated with the results of the arbitration on the project in Libya) was only partially offset by the decline in work in progress within the item progress payments and advances from customers.

2.3 Net financial position

(€'000)	**31.12.2016**	31.12.2015
Current loans and borrowings	1,780	1,628
Medium/long-term loans and borrowings	-	-
Cash and cash equivalents	(305,586)	(304,306)
BANK LOANS AND BORROWINGS	**(303,806)**	**(302,678)**
Related party loan assets	(267)	(563)
Other loan assets	(33,966)	(37,933)
LOAN ASSETS	**(34,233)**	**(38,496)**
Related party loans and borrowings	-	2,500
Other current loans and borrowings	-	-
Other medium/long-term loans and borrowings	-	-
OTHER LOANS AND BORROWINGS	**-**	**2,500**
NET FINANCIAL POSITION	**(338,039)**	**(338,674)**

The net financial position (greater loan assets and cash and cash equivalents than loans and borrowings) was €338.0 million, in line with €338.7 million at 31 December 2015. Please note that dividends of €36.0 million were paid during the year (€30.0 million in 2015).

Loan assets include the euro equivalent amount of the Libyan dinar advance on the first of the two contracts in Libya obtained by the parent and deposited in a local bank and tied up pending the resumption of activities (€28.4 thousand).

The net financial position in 2015 included the €29.3 million remainder of the advance received from the Russian customer, Zarubezhstroytechnology (ZST), for the project agreed in August 2010 and suspended as from 21 February 2011, for the development of signalling, automation, telecommunication, power supply, security and ticketing systems on the Sirth to Benghazi section in Libya. In 2013, a dispute began with ZST, which launched an arbitration procedure at the Vienna International Arbitral Centre, which in May 2016 decided in favour of the Russian customer, almost completely rejecting the demands of Ansaldo STS.
In October 2016, the company reimbursed ZST for its part of the advance held by the JV in addition to legal expenses and interest accrued until the repayment date (€37.4 million).

The reclassified statement of cash flows for 2016 follows:

(€'000)	**31.12.2016**		31.12.2015	
Opening cash and cash equivalents	**304,306**		**270,067**	
Profit for the year	77,903		93,036	
Share of profits (losses) of equity-accounted investees	(4,345)		(5,324)	
Income taxes	38,746		43,676	
Italian post-employment and other employee benefits	787		613	
Stock grant plans	4,731		1,891	
Net gains on the sale of assets	71		87	
Net financial income	14,497		4,381	
Amortisation, depreciation and impairment losses	18,325		18,725	
Accruals to/reversals of provisions for risks	4,814		2,344	
Other operating income/expense	3,118		7,802	
Write-downs/reversals of write-downs of inventories and work in progress	(4,498)		(5,223)	
Gross cash flows from operating activities	**154,149**		**162,008**	
Changes in other operating assets and liabilities	(17,275)		(68,499)	
Funds from operations		**136,874**		**93,509**
Change in working capital	(83,152)		8,894	
Cash flows from operating activities	**53,722**		**102,403**	
Cash flows used in ordinary investing activities	(15,778)		(14,702)	
Free operating cash flow		**37,944**		**87,701**
Strategic transactions	(2,100)		(15,092)	
Other changes in investing activities	3,205		5,968	
Cash flows used in investing activities	**(14,673)**		**(23,826)**	
Dividends paid	(36,000)		(30,000)	
Cash flows from (used in) other financing activities	(1,290)		(18,027)	
Cash flows from (used in) financing activities	**(37,290)**		**(48,027)**	
Net exchange rate gains	**(479)**		**3,689**	
Closing cash and cash equivalents	**305,586**		**304,306**	

Cash and cash equivalents equalled €305.6 million at the reporting date, up by €1.3 million over the prior year figure.
The main changes in the statement of cash flows were as follows:
- cash flows from operating activities decreased by €48.7 million to €53.7 million mainly due to: the negative change of Work in progress in the line item advances from customers, partially offset by the reduction of financial advances (connected with the definition of the claim in Lybia);
- cash flows used in investing activities amounted to €14.7 million, up €9.1 million over the previous year (2015: €23.8 thousand used);

- cash flows used in financing activities came to €37.3 million compared to cash flows used in financing activities of €48.0 million in 2015. The variation is due to the lower cash flows used for financing activities and the payment of dividends of €36.0 million by the parent Ansaldo STS S.p.A. (€30.0 million in 2015).

The Free Operating Cash Flows (FOCF) used before strategic transactions of the year totalled €37.9 million compared to €87.7 million for 2015. The €49.8 million decrease is due to the negative variation in working capital.

2.4 Non-GAAP alternative performance indicators and other indicators

Non-GAAP alternative performance indicators

Ansaldo STS's management also assesses the performance of the company and of the Group using certain indicators that are not defined by the IFRS, as required by CESR communication 05 - 178b and considering the guidelines of the ESMA communication of June 30, 2015 Guidelines on Alternative Performance Measures, the components of each of these indicators are described below:

- **Operating profit (EBIT)**: represents an indicator for the assessment of operating performance and is equal to the unadjusted profit before income taxes and financial income and expense. It does not include income and expense on non-consolidated equity investments and securities or the gains (losses) on the disposal of consolidated equity investments, classified in "Financial income and expense" in the financial statements or, for equity-accounted investees, in the caption "Share of profit or loss of equity-accounted investees".
- **Adjusted EBIT (Adj)**: is the EBIT as described above, net of the following items (where applicable):
  - any impairment losses on goodwill;
  - amortisation of the portion of any purchase price allocated to intangible assets as part of business combinations, pursuant to IFRS 3;
  - restructuring costs in relation to defined and significant plans;
  - other income or expense not of an ordinary nature, i.e., related to particularly significant events unrelated to ordinary activities.

A reconciliation of EBIT and Adjusted EBIT for the two years is set out below:

(€'000)	**2016**	2015
EBIT	126,801	135,769
Restructuring costs	-	-
Adjusted EBIT	**126,801**	**135,769**

- **Free Operating Cash-Flow (FOCF):** the sum of cash flows generated by (used in) operating activities and cash flows generated by (used in) investments in and disinvestments of property, plant and equipment, intangible assets and equity investments, net of cash flows for acquisitions or disposals of equity investments which qualify as "strategic transactions" given their nature or materiality. The method used to calculate the FOCF for the current and previous years is shown in the paragraph 2.3.
- **Funds From Operations (FFO):** the cash flows generated by (used in) operating activities, net of changes in working capital. The method used to calculate the FFO for 2016 and 2015 is shown in the reclassified statement of cash flows in section 2.3.
- **Economic Value Added (EVA):** the difference between operating profit net of income taxes and the cost of the average invested capital of the two years under comparison, calculated using the weighted average cost of capital (WACC).
- **Net working capital:** it include trade receivables and payables, inventories and work in progress, advances from customers and provision for risks.
- **Net invested capital:** the sum of non-current assets, non-current liabilities and net working capital.
- **Net financial position or debt:** the calculation method used complies with paragraph 127 of CESR recommendation 05-054b, implementing EC regulation 809/2004.
- **Return on Sales (ROS):** the ratio of operating profit to revenue.

- **Return on Equity (ROE):** the ratio of the profit or loss for the year to the average amount of equity at the reporting date and the corresponding prior year reporting date.
- **Research and development expense:** the total expense incurred for research and development, both expensed and sold. Research expense taken to profit or loss usually relates to "general technology", i.e., aimed at gaining scientific knowledge and/or techniques applicable to various new products and/or services. Sold research expense represents that commissioned by customers and for which there is a specific sales order and it is treated exactly like an ordinary order (sales contract, profitability, invoicing, advances, etc.) in accounting and management terms.

Other indicators

- **New orders:** the sum of the contracts agreed with customers during the year that meet the contractual requirements to be recorded in the orders book.
- **Order backlog:** the difference between new orders and revenue for the year (including the change in contract work in progress). This difference is added to the backlog for the previous year.
- **Headcount:** the number of employees recorded in the relevant register on the reporting date.

2.5 Related party transactions

Transactions with related parties relate to ordinary operations. They take place on an arm's length basis (unless governed by specific contractual terms), as does the settlement of interest-bearing receivables and payables.
They mainly comprise the exchange of goods, the provision of services and the obtaining/granting of financing from and to the parent, associates, joint ventures, consortia and unconsolidated subsidiaries.
During the year, no atypical and/or unusual transactions[1] took place.

1. as defined by CONSOB communication no. DEM/6064293 of 28 July 2006.

Related party transactions (see notes 14 and 15 to the consolidated financial statements for greater detail) are as follows at 31 December 2016 and 2015.

31.12.2016 (€'000)	**Ultimate parent**	**Unconsolidated subsidiaries**	**Associates**	**Joint ventures**	**Consortia (*)**	**Other group companies**	**Total**
Non-current financial assets							
- loan assets	-	-	-	-	-	-	**-**
- other financial assets	-	-	25,068	-	454	-	**25,522**
Current financial assets							
- loan assets	-	-	267	-	-	-	**267**
- trade receivables	468	331	4,075	2,246	48,916	6,340	**62,376**
- other financial assets	-	-	-	-	4	-	**4**
Current financial liabilities							
- loans and borrowings	-	-	-	-	-	-	**-**
- trade payables	-	234	2,765	-	3,103	13,569	**19,671**
- other financial liabilities	-	3	370	-	37	-	**410**

31.12.2016 (€'000)	**Ultimate parent**	**Unconsolidated subsidiaries**	**Associates**	**Joint ventures**	**Consortia (*)**	**Other group companies**	**Total**
Revenue	517	162	19,531	(2,330)	60,799	13,439	**92,118**
Other operating income	-	-	1,300	-	-	-	**1,300**
Costs	556	353	33,158	41	2,840	28,039	**64,987**
Financial income	-	-	-	-	-	-	**-**
Financial expense	-	-	-	-	-	-	**-**
Other operating expense	-	-	4	-	-	-	**4**

(*) Consortia over which significant influence is exercised or subject to joint control. Please refer to note 12.2.1 of the consolidated financial statement for the evaluation and description of Consortia.

31.12.2015 (€'000)	Ultimate parent	Unconsolidated subsidiaries	Associates	Joint ventures	Consortia	Other group companies	Total
Non-current financial assets							
- loan assets	-	-	-	-	-	-	**-**
- other financial assets	-	-	20,733	-	478	-	**21,211**
Current financial assets							
- loan assets	-	-	563	-	-	-	**563**
- trade receivables	301	488	3,825	2,860	41,561	9,917	**58,952**
- other financial assets	-	-	-	-	4	-	**4**
Current financial liabilities							
- loans and borrowings	-	-	-	-	-	2,500	**2,500**
- trade payables	93	313	4,966	9	3,868	15,998	**25,247**
- other financial liabilities	3	-	370	-	29	-	**402**

31.12.2015 (€'000)	Ultimate parent	Unconsolidated subsidiaries	Associates	Joint ventures	Consortia	Other group companies	Total
Revenue	-	220	27,854	(2,770)	43,540	4,358	**73,202**
Other operating income	-	-	4,151	-	-	-	**4,151**
Costs	(301)	194	40,176	-	2,604	14,086	**56,759**
Financial income	-	-	221	-	-	-	**221**
Financial expense	-	-	-	-	-	-	**-**
Other operating expense	-	-	-	-	-	-	**-**

Finally, the group's corporate governance framework includes specific guidance on conduct to ensure related party transactions comply with criteria of procedural and substantial correctness.
Related party transactions between the parent and related parties take place on an arm's length basis.

2.6 Performance

2.6.1 The market and commercial situation

New orders acquired in 2016 approximated €1,476 million (2015: €1,336 million).
The key events of the year are described below:

ITALY

The orders acquired during the period amount to roughly €429 million.
Of particular note were contracts related to the technological upgrade of the Florence-Rome high-speed line (roughly €75 million in total), which envisages the implementation of the ERTMS L2 Trackside Subsystem and the ACC-M, and the contract relating to the Milan-Genoa high-speed line (the "Terzo Valico dei Giovi"), for a value of around €175 million, the work scope of which regards the supply of technological systems relating to railway signalling equipment, the command and control system (SCCM/AV), the light and utility power system and the tunnel safety monitoring system.
In addition, there were order variations on existing contracts, in particular those relating to the Line 6 project for the Naples metro for around €30 million and assistance and components contracts for a total of €28 million.

REST OF EUROPE

Orders amounted to approximately €427 million, consisting primarily of contracts in the UK, relating to the modernisation of the Glasgow metro with CBTC driverless signalling technology, including maintenance and an option exercised in the last part of the year, for €139 million, and the resignalling of the Ferriby - Gilberdyke line (€20 million) with CBI SEI technology and the contract in Belgium relating to the automation of lines 1 and 5 of the Brussels metro with CBTC technology (€88 million).
In France, orders totalled around €79 million, including the contract with the customer RATP for the maintenance of the Paris metro line (approximately €27 million).
As regards Northern Europe, orders amounted to around €81 million, consisting primarily of the ERTMS L2 contract in the town of Haparanda in Sweden (€21 million) and variations relating to the Copenhagen metro.

NORTH AFRICA AND THE MIDDLE EAST

Orders in this area totalled around €4 million, consisting almost exclusively of variations on the maintenance contract for the metro line dedicated to the *Princess Nourah* women's university in Riyadh.

AMERICAS

In the Americas, orders acquired during the period amounted to roughly €129 million; the main order relates to an approximately €38 million contract entered into with Long Island Rail Road (LIRR) for the design and construction of a new computerised train control signalling system. In addition, roughly €55 million related to the sale of components, maintenance and modernisation for freight lines and around €17 million to the LIRR Mid Day Yard contract with the Long Island Rail Road (LIRR) for the supply of interlocking, switch machines and track circuits.

ASIA PACIFIC

Orders during the period amount to roughly €486 million.
In Australia, orders amounted to approximately €139 million, primarily relating to lines for heavy haul mining and freight transport, including order variations relating to the Rio Tinto project (€96 million); there is also a contract in place relating to the railway line connecting the town of Forrestfield to the Perth airport (€30 million).
Around €37 million in orders was recorded in Malaysia for signalling works in a section of the Klang Valley railway network.
The main purchase order in the area regards the turnkey agreement entered into by the consortium consisting of Ansaldo STS, Hitachi Ltd. and RSEA Engineering Corp. with NCTG DORTS (New Taipei City Government Department of Rapid Transit System), relating to the San-Ying (Sanxia-Yingge) line of the Taipei underground railway system. The scope of work for Ansaldo STS, as consortium leader, involves the supply of CBTC (Communication Based Train Control) technology and all electro-mechanical systems (power supply, telecommunications, platform doors, ticketing systems, SCADA and depot equipment), for a value of around €220 million.
Lastly, the orders acquired in India came to roughly €46 million, consisting primarily of the contract entered into with NMRC (Noida Metro Rail Corporation) relating to the implementation of CBTC signalling system for the Noida - Greater Noida Metro project (around €26 million).

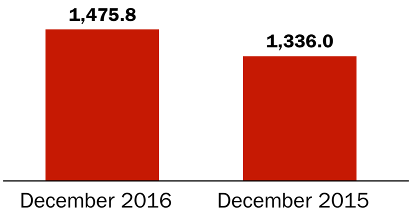
2.6.2 Sales information

New orders for the year totalled €1,475.8 million compared to €1,336.0 million in the previous year.

Key orders acquired in 2016 are as follows:

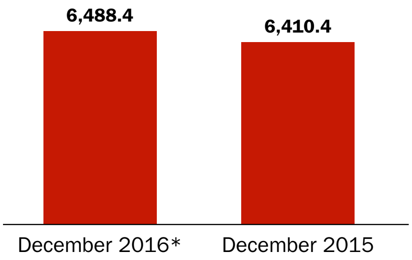
Country	Project	Customer	Amount (€m)
Taiwan	Sanying Line MRT System	NCTG DRTS	220
Italy	Milan-Genoa high speed	Saturno Consortium	175
Great Britain	Glasgow Metro - including maintenance	Strathclyde Partnership for Transport	139
Australia	Auto Haul - variations	Rio Tinto Iron Ore	96
Belgium	Brussels metro	STIB	88
Italy	ACC-MDD Rome-Florence including SST ERTMS ETCS Lev.2	RFI	75
USA	LIRR Ronkonkoma	LIRR	38
Malaysia	KVDT	Dhaya Maju Infrastructure	37
Italy	Line 6 - Variations	Naples municipality	30
Australia	Forrest field Airport Link	Salini Impregilo Spa - NWR Pty Ltd Joint Venture	30
France	Maintenance 2016	RATP	27
India	Noida Metro	Delhi Metro Rail Corporation Limited	26
Sweden	ESTER - Line 2	Trafikverket	21
Great Britain	Ferriby Gilberdyke	Network Rail	20
USA	LIRR MID-DAY - Depot	LIRR	17
Various EU / Asia	Service & Maintenance	Various	65
Various EU / Asia	Components	Various	49
USA	Components	Various	50

New orders for 2016 - 2015 (€m)



The order backlog at 31 December 2016 amounted to €6,488.4 million compared to €6,410.4 million at 31 December 2015. The total value of the backlog includes €428.9 million related to the project in Libya, which is still halted.

Order backlog at 31 December 2016 - 2015 (€m)



* The order backlog in December 2016 includes the residual amount of the contract in Libya, currently halted, worth €428.9 million.

2.6.3 Business performance

Revenue in 2016 came to €1,327.4 million, compared to €1,383.8 million in the previous year.
The key production activities are summarised by geographical segment below.

ITALY

With respect to the high-speed railways business segment, production activities were focused on the Treviglio-Brescia section as part of the Saturno consortium. The 56 km line was activated in December in accordance with the accelerated schedule requested by the customer RFI.
With respect to the on-board SCMT/ERTMS systems, work to equip the ETR1000 high speed trains for the Trenitalia fleet continued.

Production by the central automated system business unit mainly related to the project for the technological upgrade of the Turin-Padua line. In the reference period, an additional project milestone was achieved relating to the activation of a further 50 km section of the line (4 stations).

Civil works continued for Line 6 of the Naples metro as well as the electro-mechanical installations for the Mergellina-S. Pasquale line.
The S. Pasquale station has been essentially completed in accordance with the updated schedule.

In March, civil works for the Rome metro line C resumed, for the construction of the San Giovanni station and the T3 section (from San Giovanni to Fori Imperiali), which were previously suspended.

For the Milan metro Line 4, engineering and procurement activities continue. The initial access to the line is expected in the coming year.

REST OF EUROPE

In France, activities related primarily to the on-board systems and equipment for the country's high-speed network (in particular the two main projects relating to the "*LGV Sud Europe Atlantique – Tours Bordeaux Tours*" and the "*LGV Bretagne Pays de la Loire*" lines), as well as the maintenance, assistance and production of individual parts contracts. In particular, for the *LGV Bretagne Pays de la Loire* project, the reference period saw the roll-out and start of field testing.

In late June, a popular referendum approved the United Kingdom's exit from the European Union. There were no significant economic or financial impacts during the year.
In Scotland, planning activities continued with respect to Glasgow metro modernisation, for which a dedicated contract for hedging currency risk has been entered into.

In Sweden, production mainly related to the development of technological systems for the Stockholm Red Line metro, for which line installations continue, and the Ester project to upgrade the Swedish railway network to the ERTMS L2 standard.

In Germany, activities moved forward on the software development project related to the supply of on-board devices for the Siemens Velaro D and Velaro Eurostar high-speed trains for the end customers DB, Eurostar and SCNF.

In Turkey, recent geopolitical events have not yet had consequences on contracts in progress.
With reference to the Mersin-Toprakkale project, works continued to install and roll out the multi-station equipment for the south section as well. During the period, a further multi-station system relating to 50 km of line was activated.

With respect to the Ankara metro, since March 2016, the safety assessment documents were issued as well as the relative certification of lines M1, M2 and M3 for the regular entry into service in CBTC mode. The CBTC system for these lines is therefore available for the customer's use, ready for passenger service.

In Greece, with reference to the project for the construction of the Thessaloniki metro, works continue pending the conclusion of an agreement with the customer to close the arbitration procedure concerning the request by the contractor consortium for the recognition of higher expenses and/or costs incurred.

In Denmark, the project relating to the Copenhagen Cityringen metro line is moving forward, for which the design and material procurement activities are being carried out in parallel with the dynamic testing activities on the trial rail.
The activities related to supplies and installation will continue during 2017. The O&M activities related to the existing metro line, will progress steadily.

In addition, installation activities proceed along the line for the construction of the tramway in the city of Aarhus, albeit with delays in reaching certain milestones.

AMERICAS

Activities for the construction of the Honolulu metro continued in Hawaii: specifically, static testing began on the first two trains that arrived on site.
There were delays in the completion of civil works that were not part of the scope of work of ASTS, but were in preparation for it.
In the United States, as regards the *Positive Train Control* project for the customer SEPTA in Philadelphia, the works are in the completion phase with a provisional roll-out.
In parallel, design and procurement activities continue for two projects for the design and implementation of the *Positive Train Control* system for 15 lines of the customer MBTA in Boston, and to equip the Sharon Hill railway/tramway line in Philadelphia managed by the customer SEPTA with CBTC technology.
Production for the sale of components for the existing eight product lines continued.
In Peru, the design and procurement activities moved forward on Lines 2 and 4 of the Lima metro. The planning of the first phase can be deemed concluded and second phase planning is in the completion stage. The civil works are still affected by the delays caused by the difficulties in acquiring the areas to be expropriated. During 2017 goods supply and engineering activities are expected to progress based upon the ongoing negotiations with the final customer. It is expected also the final acceptance for engineering activities regarding the project phase 1 & 2 and a further progress related to phase 3. In addition, during this year, the impact of the delays related to civil works and the possible changes on track line will be assessed.

NORTH AFRICA AND THE MIDDLE EAST

The Libyan railway project is on hold and it is difficult to say when it will resume.
With respect to the contract with the Russian customer Zarubezhstroytechnology for the Sirth - Benghazi line in Libya, the arbitration initiated by the customer in Vienna against the Ansaldo STS - Selex ES joint venture was concluded with the almost complete acceptance of the demands of the opposing party.

In Saudi Arabia, design activities for the Riyadh Metro Line 3 project have been delayed compared to the initial schedule due to project modifications and variations requested by the customer. During 2017 it is expected the completion of the shipping of goods as well as the beginning of the installation phase.

ASIA - ASIA PACIFIC

In Australia, production activities mainly focused on projects covered by the framework agreement with Rio Tinto (RAFA), the Roy Hill project and Moreton Bay Rail Link.
With respect to the RAFA projects, of particular note were activities in relation to the AutoHaul project, in which software upgrade and installation activities continued on the locomotives as well as system testing on the line. The project is currently expected to be completed in the first half of 2018.
With respect to the Roy Hill project, stage 3 (IETO) was delivered, while stage 4 (CBS) activities continue, although with a delay compared to the original schedules.
In Queensland, the Moreton Bay Rail Link line has been rolled out.
For RAFA, Roy Hill and Moreton Bay Rail Link, negotiations are taking place with the customers about the claims for higher costs incurred.

In India, works for the implementation of signalling systems relating to the KFW project continued. Due to the numerous modifications requested by the customer, delays are being accumulated, which lead us to believe that the project will not be completed before the end of next year. It should be noted that the supervision system passed inspection during the period.
Despite the customer’s reassignment of the rolling stock supply contract, the Kolkata metro project also continues to incur delays caused by the civil works and the unavailability of design inputs.
Preliminary activities in Malaysia continue in relation to the signalling project for the Rawang - Salak Selatan section of the Klang Valley railway network, for which in any event certain aspects relating to the scope of the works still need to be defined.

In South Korea, despite the issues relating to the completion of civil works, the high-speed section of the Sudokwon project was rolled out in December.

In China, activities for the projects to supply CBTC technology for the Chengdu, Dalian, Hangzhou, Xi'an, Zhengzhou and Shenyang metros continued as scheduled.

Design and production activities continued for the construction of the Taipei Metro Circular Line metro. The delays in civil works further impacted the metro construction times, and the new works schedule is still being negotiated with the customer. During the reference period, the first train arrived on site.
In parallel, also in Taipei, the engineering and procurement activities began for the new contract for the construction of the new San-Ying metro line.

2.7 Reconciliation between the profit for the year and equity of the parent and the group at 31 December 2016

(€'000)	Equity	of which: Profit for the year
Parent's equity at 31 December 2016 and profit for the year then ended	**475,323**	**145,857**
Difference between the equities shown in the annual financial statements (including profits for the year) compared with the carrying amounts of investments in companies consolidated on a line-by-line basis	150,451	40,567
Difference between the equities shown in the annual financial statements (including profits for the year) compared with the carrying amounts of investments in equity-accounted investees	6,091	3,948
Goodwill	34,569	-
Consolidation adjustments for:		
- Dividends from consolidated companies	-	(111,092)
- Translation differences	32,528	
- Impairment losses (reversals) on consolidated companies and loan assets of subsidiaries	8,664	(1,312)
Total attributable to the owners of the parent	**707,626**	**77,968**
- Non-controlling interests	220	(65)
Total equity at 31 December 2016 and profit for the year then ended	**707,846**	**77,903**

3 Key events of and after the reporting period

Please recall that on 24 February 2015, Hitachi Ltd. and Finmeccanica S.p.A. communicated their signing of a binding contract for Hitachi's purchase of Finmeccanica's entire investment in Ansaldo STS S.p.A., equal to 40% of its share capital. As a result, on 2 November 2015, Finmeccanica S.p.A. executed the sale of its investment in Ansaldo STS (80,131,081 shares for 40.07% of its share capital) to Hitachi Rail Italy Investments S.r.l., wholly owned by Hitachi Ltd. Accordingly, Hitachi Ltd, by its wholly owned controlled company, became the company's controlling shareholder of Ansaldo STS S.p.A., pursuant to article 2359 Paragraph 1, n°2 of the Italian Civil Code and article 93 of the Consolidated finance act. On 21 December 2015, the company's board of directors verified that Ansaldo STS is managed and coordinated by Hitachi Ltd. in accordance with article 2497 and subsequent articles of the Italian Civil Code.

Please recall that on 2 November 2015 and following the sale of the above shares, the legal conditions materialised obliging Hitachi Rail Italy Investments S.r.l., Hitachi Ltd.'s subsidiary, to make a takeover bid for all the company's remaining ordinary shares (119,868,919 shares equal to 59.93% of its share capital) pursuant to articles 102 and 106.1-bis of the Consolidated finance act (the "takeover bid"). The period for acceptance of the takeover bid was concluded on 14 March 2016. The ordinary shares of Ansaldo STS S.p.A. for which the bid was accepted numbered 12,832,398, equal to 6.416% of the company's share capital. Therefore, on 21 March 2016, the date of payment of the consideration due to holders of the shares for which the bid was accepted and their simultaneous transfer to the bidder, the investment in Ansaldo STS S.p.A. held by Hitachi Rail Italy Investments S.r.l. was equal to 46.482% of the share capital.

As Hitachi Rail Italy Investments S.r.l.'s investment came to lower than 90% of the share capital of Ansaldo STS S.p.A., the requirements were not met for the exercise of the commitment to buy pursuant to art. 108, paragraph 2, of the Consolidated finance act or the commitment to buy pursuant to art. 108, paragraph 1 of the Consolidated finance act and the right to buy, pursuant to article 111 of the Consolidated finance act.

Subsequently, Hitachi Rail Italy Investments S.r.l. acquired an additional 8,581,223 ordinary shares of Ansaldo STS S.p.A. Due to this purchase, the investment held by Hitachi Rail Italy Investments S.r.l. in Ansaldo STS S.p.A. is currently equal to 50.772% of the share capital.

More information about the takeover bid is provided in the communications and documentation made available to the public pursuant to the relevant legislation on the company's website page http://www.ansaldo-sts.com/it/investor-relations/offerta-pubblica-dacquisto.

In March 2016, the Ansaldo STS – Stadler consortium was awarded the contracts for the modernisation of the Glasgow metro. The contracts include the supply of 17 new trains, Driverless Communication Based Train Control (CBTC) signalling technology, platform doors and depot equipment and the relative maintenance services for the modernisation of 10.5 km of twin metro lines and 15 stations in the Glasgow metro system.
The project has a total value of GBP 203.2 million. Ansaldo STS's share is worth GBP 104.3 million.

On 21 June 2016, Ansaldo STS and Hitachi, Ltd., as members of the ARH consortium (consisting of Ansaldo STS SpA, RSEA Engineering Corp. and Hitachi, Ltd.), signed a turnkey agreement with New Taipei City Government Department of Rapid Transit System (NTCG DORTS) with a total value of roughly €885 million.
The scope of work for Ansaldo STS, as consortium leader, involves the supply of CBTC (Communication Based Train Control) technology and all electro-mechanical systems (power supply, telecommunications, platform doors, ticketing systems, SCADA and depot equipment), for a value of about €220 million (excluding VAT).
CBTC technology is leading to a new era in the sector of railway transport control, boosting flexibility, reducing maintenance costs and improving interoperability.
The scope of the supply of Hitachi, Ltd. includes the design and construction of cars for metropolitan trains and consists of 29 two-car trains for a total of 58 cars.
For NTCG DORTS, this turnkey project includes civil, electro-mechanical and rolling stock works and is the first medium capacity metro built and managed by New Taipei City.

The entire San-Ying line is 14.29 km long, with 12 stations and a depot. The line, which includes completely elevated stations, goes from Dingpu station on the MRT blue line in Tucheng, and goes through Sanxia to Yingge.

As part of the “3-rings-3-lines” project, the San-Ying line will enter the construction phase in the second half of 2016 and is expected to be completed in 2023. It will provide a comfortable and safe public transport system to the citizens of New Taipei City.

In September 2016, Ansaldo STS was awarded two contracts with a total value of €74.8 million relating to signalling on the direct Rome - Florence section of the high capacity/high speed Turin-Milan-Naples line.
In the contracts awarded by RFI (Rete Ferroviaria Italiana), the scope of the work for Ansaldo STS encompasses the design and execution of works for the implementation of the ERTMS/ETCS Level 2 Trackside Subsystem, the ACC-M and complementary and accessory activities for the technological upgrade of the direct Rome - Florence section of the high capacity/high speed Turin-Milan-Naples line.
Ansaldo STS’s signalling systems will support the current 234 km of double track line, elevating the line to the highest technological levels.

During the third quarter, the French subsidiary signed a €88 million contract with STIB (Société des Transports Intercommunaux de Bruxelles) for the automation of lines 1 and 5, as part of the plan for the modernisation of the Brussels metro (the “Pulsar project”).
Within the modernisation project, Ansaldo STS will supply its Driverless CBTC solution to STIB to increase the operational performance, efficiency and safety of the east-west axis (lines 1 and 5) of the metro, along a total length of 35.5 km and 37 stations, with at total fleet of 60 trains.
The framework agreement also includes optional lines 2 and 6.
The scope of the work includes the study, design, production, full integration, testing and roll-out, as well as training, maintenance and the relative services for trackside and on-board systems and sub-systems.

At the end of December 2016, “Consorzio Saturno per la realizzazione di opere ferroviarie ad elevato contenuto tecnologico per il sistema ferroviario italiano ad alta velocità” [Saturno Consortium for the implementation of railway works with high technological content for the Italian high speed railway system], of which Ansaldo STS S.p.A. is a member, signed an engagement with the General Contractor, Consorzio Collegamenti Integrati Veloci (“Cociv”), for the implementation of technological systems relating to the high speed/high capacity project of the Milan-Genoa line, “Terzo Valico dei Giovi”.
The scope of the work pertaining to Ansaldo STS regards the supply of technological systems relating to railway signalling equipment, the command and control system (SCCM/AV), the light and utility power system and the tunnel safety monitoring system.
The works awarded to Ansaldo STS are worth a total of €174.6 million.

By deed dated 14 July 2016, the Funds Elliott petitioned the Court of Genoa to cancel the shareholders’ meeting resolution of 13 May 2016 appointing the board of directors and chairperson Dormer, after suspending its effectiveness and prohibiting Hitachi Rail, which was also served with the summons, from exercising its voting rights.

The Elliot Funds had also submitted a petition for the appointment of a special receiver pursuant to art. 78 of the Italian Code of Civil Procedure, who would represent the company in court. On 18 July 2016, the Elliott Funds served the company with the order signed on 14 July 2016 whereby the chief judge of the Court of Genoa, in acceptance of their petition, appointed a special receiver.
The appointment measure was revoked by the chief judge of the Court of Genoa on 1 August 2016 due to procedural irregularities.
On 11 August 2016, in acceptance of a new petition from the Elliot Funds, the Court of Genoa again appointed attorney Alessandro Barca as special receiver.
After the company submitted a complaint, on 6 September 2016 the Genoa Court of Appeals definitively cancelled the Court’s appointment of the receiver, ruling out “*the existence of conflicting interests between the legal representatives and the company*”.
The company therefore appeared before the court in the proceedings for the precautionary suspension of the appealed resolution, presenting its defence, and after the hearing of the directors and statutory auditors, on 9 November 2016 the Court of Genoa rejected the request for the precautionary suspension of the shareholders’ resolutions of 13 May 2016. In particular, the Court recognised that circumstances prior to the appoint of the board

of directors could not be enforced with respect to the company and its board of directors - as they "*are outside the sphere of knowledge of the current corporate bodies (as these are facts pre-existing their appointment, in which Ansaldo STS did not participate)*" - and that all directors in office had been appointed legitimately. The Elliot Funds did not submit any complaint against the order in question.
The decision on the merits is pending, the parties have presented their conclusions and the decision is expected for the first months of 2017.

On 23 November 2016, the Elliott International L.P., The Liverpool Limited Partnership and Elliott Associates L.P. Funds sent the Board of Statutory Auditors a report pursuant to art. 2408 of the Italian Civil Code, requesting a verification regarding certain corporate governance aspects, of which the company was informed on 27 November 2016.
At the ordinary shareholders' meeting of Ansaldo STS S.p.A. on 19 January 2017, the Board of Statutory Auditors presented its conclusions with respect to the report pursuant to art. 2408 of the Italian Civil Code submitted by the Elliott Funds; they have been made available to the public by means of publication on the company website at www.ansaldo-sts.com/it/governance/assemblea-azionisti/assemblea-nomina-revisore-legale-conti-2017.
Please recall that, also during the shareholders' meeting held on 13 May 2016, the board of statutory auditors responded to a previous report dated 9 April 2016 pursuant to art. 2408 of the Italian Civil Code from the shareholders Elliott International L.P., The Liverpool Limited Partnership and Elliott Associates L.P., with respect to which reference is made to the company webpage http://www.ansaldo-sts.com/it/governance/assemblea-azionisti/assemblea-2016.

On 19 January 2017, the ordinary shareholders' meeting of Ansaldo STS S.p.A., acknowledging the resignation of KPMG S.p.A. on 14 November 2016, appointed EY S.p.A. to audit the company's accounts for the years 2016-2024.
On the basis of a request to supplement the agenda submitted on 29 December 2016 and pursuant to art. 126-bis of the Consolidated finance act by the shareholder Hitachi Rail Italy Investments s.r.l., the meeting also resolved to lodge a corporate action for liability pursuant to art. 2393 of the Italian Civil Code against director Giuseppe Bivona who, as a result, was removed from office. Therefore, as set forth in relevant legislation and the by-laws, the shareholders' meeting appointed Michele Alberto Fabiano Crisostomo as company director, as he was the first unelected candidate on the non-controlling shareholder list submitted jointly on 21 April 2016 by the non-controlling shareholders Elliott Associates L.P., Elliott International L.P. and The Liverpool Limited Partnership ("Elliott Funds"); when the list was submitted, the candidate had declared that he met the independence requirements laid out by relevant legislation and the Code of conduct for listed companies promoted by Borsa Italiana S.p.A. The Elliott shareholders declared during the meeting that the office was accepted and that the independence requirements were fulfilled.

4 Risks and uncertainties

The risks described below stem from a consideration of the features of Ansaldo STS group's market (demand and offer) and business, together with the key findings of the updated risk assessment process. Risk assessment aims at identifying and evaluating the main risks that could have an impact on achieving objectives, for those processes identified as relevant, and the related mitigating actions, as well as defining additional actions to be taken to further reduce the risk or improve process performance.

Ansaldo STS's risk assessment process is based on the Committee of Sponsoring Organisations of the Treadway Commission's internationally-recognised Enterprise Risk Management framework (COSO report) and seeks to integrate risk assessment into the processes of planning, pursuing corporate and internal control targets in order to create value while properly managing risks and mitigation plans, in addition to exploiting any opportunities.

The key risks and uncertainties faced by Ansaldo STS S.p.A. and the group are outlined below following the classification adopted by the group (strategic, operational, financial and IT risks). Risks may exist that have not yet been identified or that are deemed immaterial but which could nonetheless impact group operations.

4.1 Strategic risks

4.1.1 Changes in the macroeconomic and market context

Ansaldo STS group operates internationally and is exposed to risks arising from macroeconomic/geopolitical changes and a reference market presenting the greatest opportunities in emerging nations and those with the highest growth rates. Moreover, the market has seen greater volatility in the acquisition of contacts, due partly to the fact that projects tend to grow in size and scope and there is an increasingly consolidated trend towards the standardisation of products and technological solutions, especially in the signalling business unit. This leads to tougher competition, with decreasing prices and market consolidation even though the market shows modest growth in the medium term. The clauses in new contracts are more complex and generate greater risks which include the greater resort to project financing due to the contraction in funding available to customers. This market situation could negatively impact Ansaldo STS group's competitive edge and performance, e.g., difficulties in obtaining new contracts, contracting margins on new orders and exposure to less advantageous contractual terms.

Macroeconomic and geopolitical factors that could impact the group's operations include the growth rate in the reference countries and public spending on infrastructure. The current macroeconomic and financial uncertainty, the drop in raw material prices, which reduces customers' spending capacity in certain markets, political instability in some geographical areas of interest and plans to reduce public debt could generate delays or reductions in new orders, delays in payments and less favourable terms for new contracts, having a negative impact on Ansaldo STS group's performance.

The group's strategy may not be immediately updated and adjusted in response to these many variables and uncertainties in the macroeconomic and market context, negatively impacting its competitiveness and performance.

A key element of Ansaldo STS group's strategy is to optimise its operating structure by standardising the solutions and products offered and greater efficiency/optimisation in the use of resources during project implementation.

4.1.2 Innovation: a competitive factor

The group's business units feature a high level of technological innovation and this represents an important competitive factor.

Ansaldo STS group's ability to anticipate technological changes and implement an efficient investment policy is therefore paramount. If it fails to accurately assess innovation requirements, the contents of innovation and development projects, their benefits and related priorities, the group runs the risk of delays in the availability of new products and technical solutions, instability of new products, additional development costs on projects and lost sales.

Processes to update the product portfolio and regularly assess products' technical competitiveness are in place to mitigate these risks and ensure greater optimisation when making bids.

The features and degree of technological innovation of the group's products and technical solutions generate a risk of obsolescence. There are specific processes in place to ensure its effective management.

4.2 Operational risks

4.2.1 Country risk

The group's policy of penetrating new markets, particularly those with the highest rates of development, expose it to risks such as: political, social and economic instability, not accurately evaluating local legislation (as applies to companies, the sector and tax), the challenge of protecting intellectual property, exchange rate fluctuations, as well as the creditworthiness of counterparties, which can negatively impact the group's financial position and results of operations. Country risk is assessed when the group decides which offers and bids to make. Any mitigating actions are also contemplated at the time the bids are prepared and contracts managed.

4.2.2 Reliance on public customers and complex long-term contracts

Group operations are highly dependent on public customers and, particularly in the turnkey systems business, on complex long-term contracts of a significant amount.
Delays, amendments, revisions or cancellations of one or more significant contracts acquired could negatively impact the group's operations and its financial position and results of operations.

Assessing long-term contracts using the percentage of completion method requires the estimates of costs to complete the activities, project risks (technical, legal, tax and commercial) and contract progress. These estimates are based on assumptions related to the impact of future events which, by their very nature and given the complexity of the projects underway, may not occur as envisaged, thus negatively impacting the project's financial and economic performance. Indeed, there is often an element of uncertainty related to third-party performance of civil works for transportation infrastructure and the group cannot always cover the related impacts on programs with contractual clauses.

Market diversification and monitoring of country and compliance risk, structured project review processes involving senior management, the regular review and adjustment of contract and programme estimates and the adoption of risk management processes both at the time the bid is made and throughout project implementation, as well as lifecycle management processes involving the regular comparison of physical and accounting progress are in place to mitigate these risks.

4.2.3 Budgeting and project planning

Ineffective project planning and control processes and weak project technical management could mean the project team cannot implement the project within the set budget and timeframes, especially complex projects. These risks could cause delays in identifying issues during project roll-out and related remedial actions as well as inaccurate reporting and planning, with a consequent negative impact on the group's financial position and results of operations.
To mitigate this risk, there are formalised and monitored processes to check physical and accounting progress and risk management, clear allocation of responsibilities within the project team, managerial review of project performance, review of the estimates during the bidding and project phases and an independent review carried out by the risk management department.

4.2.4 Third parties (subcontractors, sub-suppliers and partners)

Ansaldo STS group makes considerable use of subcontractors to supply subsystems or assembly and installation services and of subsuppliers for goods or services in its business. The group's ability to fulfil its obligations to customers therefore relies on both subcontractors and subsuppliers properly fulfilling their contractual obligations. A breach thereby could in turn cause a breach by Ansaldo STS group, negatively impacting its reputation and, unless it is possible to obtain compensation from the subcontractors and subsuppliers, the group's financial position and results of operations.

Moreover, particularly in the turnkey projects business, Ansaldo STS group also carries out contracts in conjunction with other operators. In these cases, each operator generally has joint and several responsibility vis-à-vis the customer for the completion of the entire contract. In the event of a breach or damage caused to the customer by an operator, the group could be called on to replace the operator causing the breach or damage, and to compensate the damage caused to the customer in full, without prejudice to the group's right of recourse vis-à-vis the defaulting operator. If the right of recourse against the operator responsible for the breach or damage is ineffective or protracted, this could negatively impact the Ansaldo STS group's operations as well as its financial position and results of operations.

The preliminary assessment and consequent qualification of partners, suppliers, subcontractors and subsuppliers, particularly in new markets, may be inadequate, with negative impacts on the competitive nature of the technical solutions offered, project performance and on the effectiveness of partnership governance (for instance, differences of opinion between the partners, misalignment of risks and costs/benefits for the individual partners).

To mitigate these risks, the group has processes in place to select and evaluate suppliers, subcontractors and subsuppliers, it works with known and reliable partners, it defines, agrees and manages appropriate contractual and joint venture clauses, it has risk management processes and it requests specific guarantees, where applicable.

4.2.5 Efficient technical operations and relevant technical references

Development and engineering activities carried out without a clear understanding and identification of the requirements, specifications or effective configuration management could negatively affect the project budget, compliance with deadlines, performance and customer satisfaction. To mitigate this risk, the group has requirement and configuration management processes in place to ensure quality, compliance with deadlines and efficiency in projects and development management. It has rolled out special projects to monitor the proper implementation of these processes during projects.

Furthermore, if Ansaldo STS group does not have adequate market and operating references for products, this could lead to lost sales and non-compliant project implementation, negatively impacting the group's competitiveness and its financial position and results of operations. Such risk is carefully assessed when the bid is being prepared. It is managed through processes designed to ensure adequate interaction between the engineering unit, which communicates the customers' requirements, the portfolio unit, which assesses the market's technical requirements and possible technical solutions, and the development unit, as well as via the development and monitoring of the product development roadmap.

4.2.6 Liability to customers or third parties for product defects or delivery delays

Technological complexity and tight delivery times for group products and systems could leave it liable for delays in or failure to supply contractually-agreed products or services, for their non-compliance with customer requirements (for instance, due to design or construction faults) and for breaches of and/or delays in roll-out, the provision of post-sales services and product maintenance and servicing. Moreover, many products and systems supplied by the group are subject to certifications and approval, including by third-party bodies.

Such liability could be directly attributable to Ansaldo STS group or to third-party operators such as subsuppliers or subcontractors. These risks could negatively impact the group's operations, its financial position and results of operations and its reputation, and could also result in the group incurring costs to repair faulty products or their withdrawal from the market in extreme cases. Even if adequate insurance is in place, the sum insured could be exceeded or the premiums could be raised following a claim, negatively impacting the group's financial position and results of operations.

4.2.7 Legal disputes

The complexity of dealings with third parties (customers, subcontractors/subsuppliers and partners), especially for international projects and the content of systems and products developed, as well as specific business risks expose the group to a significant risk of legal disputes. Legal disputes could also relate to the awarding of bids. The settlement of disputes could be complex and take a long time, leading to delays in completing projects and negative impacts on the group's operations and its financial position and results of operations.

To mitigate this risk, there are risk management processes in place during both the bid and management stages, disputes are monitored closely, contractual clauses are examined carefully with the legal department, and a prudent approach is adopted in recognising specific items under contract costs and provisions for risks.

In addition, as the company operates within a complex international environment, it could be exposed to trade compliance risks. The lack of awareness or underestimation of trade compliance risk could negatively impact the company's reputation and profitability.
To mitigate this risk, the company has initiated a process of mapping and evaluating the controls in place and those to be implemented, which is currently in the completion phase.

4.2.8 Human resource management

Ansaldo STS group supplies products and systems featuring cutting-edge technology on a global scale and to do so, it requires human resources with specific expertise, which can be difficult to procure on the labour market.
The success of the business development plans, especially in new markets, also depends on the group's ability to attract, retain and develop the skills of its human resources, particularly in order to operate in a global group and market context and on complex projects.

To mitigate this risk, human resource management policies reflect the business needs. Ansaldo STS group also has an integrated human resource management and development system under which regular checks of expertise and performance are carried out and relevant training initiatives identified, as well as enabling the best possible allocation of resources.

4.2.9 Health, safety and environmental compliance

Ansaldo STS group has to comply with health, safety and environmental legislation in the various countries in which it operates. Failure to comply with such legislation as a result of operating processes which are not adequately monitored or - especially in new markets in countries where standards are below-par or that are exposed to specific risks (e.g., high crime rates, terrorist attacks or epidemic risks) - due to an inadequate evaluation of such requirements and necessary measures, could expose the group to risks having significant impacts on its operations, its financial position and results of operations and its reputation.

To mitigate this risk, Ansaldo STS group adopts health, safety and environmental management systems ensuring rigorous compliance with legislation in accordance with best practices, subject to internal and external monitoring and integrated with the security processes monitored by an independent internal unit. These management systems are certified (to OHSAS 18001 standard for workplace safety and ISO14001 for the environment) in the group's key companies.

Requirements in new markets are evaluated at the time the bid is prepared and the assistance of external consultants is also sought. Policies and procedures have also been set to ensure a consistent approach throughout the group's various companies while still allowing for specific local legislation.

4.3 Financial risks

4.3.1 Ability to finance a high level of current assets and obtain guarantees

To carry out contracts, Ansaldo STS group requires:
- adequate funding of current assets;
- bank and/or insurance guarantees issued to the customer in the various project stages (bid bond, advance payment bond, performance bond, retention money bond and warranty bond) and/or guarantees issued by the parent (parent company guarantees).

Current assets are usually funded by customer advances and progress payments.

Ansaldo STS group's ability to obtain guarantees at good rates depends on the evaluation of its financial position and results of operations, which is usually based on various indices including an analysis of its financial position, analysis of the contract risk and experience and competitive positioning in the reference sector. Ansaldo STS group believes it complies with the relevant parameters. At 31 December 2016, it had guarantees of €3,982,516 thousand.

Difficulty in negotiating suitable financial terms for new contracts, payment delays and/or suspension and deterioration of existing terms of payments, or the inability or greater difficulty in obtaining guarantees at good rates, would negatively impact the group's and the parent's operations and financial position and results of operations.

To mitigate these risks, Ansaldo STS group has commercial and contract management policies focussed on financial aspects, centralised treasury management which optimises the cash flows of the various group companies; its financial position is solid and the contract parameters are assessed right from the time of the bid stage.

In the present economic and market context, due to new contracts which have less favourable financial terms, working capital is monitored closely and specific initiatives are in place to mitigate its impact.

4.4 IT risks

4.4.1 IT systems

IT systems are a vital part of Ansaldo STS group's operating structure and their management must be in line with the group's strategic objectives. IT solutions that do not match business needs, or upgrades thereof that do not meet users' needs, or inefficient system or outsourcer management, could compromise the efficiency and effectiveness of group operations.

Moreover, the unavailability or interruption of IT services or network and data loss or damage (including sensitive data or intellectual property), also as a result of hacking, could compromise group operations.

To mitigate this risk, the IT policies took into account the organisational and process change initiatives. Moreover, Ansaldo STS group has a governance system based on best practices and follows structured and monitored processes for hardware and software management, including cyber-security aspects.

5 The environment

Ansaldo STS group has pursued sustainability in recent years in the belief that respecting environmental and social values leads to the creation of long-term value for the group. In its Sustainability report, the group transparently discloses its values, strategies, policies and decisions in terms of economic, environmental and social sustainability.

In full compliance with ruling legislation, the law, the code of ethics, 231 Model, policies and all health and safety (HSE) regulations, Ansaldo STS group applies sustainable management of social and environmental matters linked to the services in all its business areas.
The group's commitment to "sustainable development" has seen it focus on the quality of life, ensuring the protection of natural resources, the safeguarding and protecting the environment and the adoption of environmental sustainability principles and values and avoiding permanent environmental damage.

Environmental protection is part of our social responsibility and is key to our business strategy promoting growth in the group's value over the long term. We want to do our bit to ensure a safe, sustainable future by minimising our ecological footprint and encouraging our employees, suppliers and customers to do the same. Our aim is to produce in the safest way possible, using the minimum resources possible.

From an environmental point of view, Ansaldo STS group is involved:
- as a producer, committed to pursuing environmental protection policies not only by just complying with existing laws, legislation and directives but by pursuing ongoing improvement in the environmental impact of its products and production processes;
- as a supplier of railway operators, in the knowledge that offering increasingly evolved, safe and reliable railway traffic control and automation products promotes the rapid development of the most environmentally-friendly transport system available today.

Strategic orientation and management approach

Ansaldo STS group has implemented an Integrated Management System (IMS) for environment, safety and quality issues. At group level, it has set policies and procedures to ensure the controlled management of the processes and workplace safety and environmental protection activities.
Each certified group company subsequently set local policies in relation to the environment, safety and instructions, based on the framework of legislative requirements and group policies and procedures, in order to achieve the following objectives:
- ensuring the best available technologies are used and international best practices adopted in order to continuously improve operating management, the rational and efficient use of energy, the prevention of pollution and the reduction of the environmental impact related to the use of fossil fuels;
- ensuring liquid waste, gas emissions and waste from assets in running conditions and activities performed are controlled, gradually reduced and kept at a minimum;
- ensuring compliance with legal requirements applicable to its processes in the various countries in which the subsidiaries operate, by formalising procedures that increase awareness of the applicable legislative framework;
- identifying significant direct and indirect environmental issues in order to reduce and control the related impact, both as relates to the group and its suppliers and partners;
- defining key indicators with a view to facilitating the assessment of performance;
- defining roles, duties and responsibilities within the scope of activities.

Ansaldo STS S.p.A. recommends its subsidiaries follow the ISO 14001 framework and EMAS (Eco-Management and Audit Scheme) regulation in developing their management systems. Certification is regarded as key to developing an entrenched environmental awareness both among company personnel and suppliers and subcontractors and has been obtained for the Tito production site.

Innovation and the promotion of good practices

The environmental management system adopted by Ansaldo STS S.p.A. is applied to the following:
- **PRODUCTION FACILITIES** for products used in safety, control and monitoring systems supplied;
- **OFFICES** (non-production sites) mainly for signalling plant design; the analysis of safety, reliability and availability; laboratory testing; contract management and control; research and development; procurement; and prevention and protection;
- **WORK SITES** Ansaldo STS group's direct activities at work sites relate to management and coordination, surveillance and control of production, commissioning and roll-out of plant and delivery to the customer. With respect to environmental issues as a result of such activities, Ansaldo STS group operates in accordance with operating control procedures, based on an initial environmental analysis of the work to be performed at the site, prepared and agreed with the subcontractors, followed by an environmental monitoring plan to continuously ensure legal compliance and that all steps are taken to limit the environmental impact that the opening of any site inevitably entails.

Ansaldo STS group is also committed to providing the best and safest products and the best system solutions, using the best design methodologies and procedures and the best possible manufacturing methods and processes, in line with its aim of reducing energy consumption and both direct and indirect environmental impact.

Energy efficiency

Ansaldo STS's search for energy efficiency is broken down into the following macro-areas:
- Support for the design of turnkey systems through holistic hardware-in-the-loop type simulators intended to provide a transport system that uses energy efficiently;
- "Operation – rail & driverless", the focus of which is seeking out the optimal speed profile, taking into account scheduling and driving conduct;
- "Energy saving technologies", with a focus on trackside recovery systems, geothermal heat pumps and simulators for the optimal sizing of supercapacitor battery systems.

These areas are developed in the MERLIN (Management of Energy in Railway Systems), OSIRIS (Optimal Strategy to Innovate and Reduce energy consumption In urban rail Systems) and SFERE (Sistemi FERroviari: eco-sostenibilità e risparmio Energetico [Railway Systems: eco-sustainability and energy savings]) projects.

Eco-design

Partially due to certain new contracts (e.g., the Montreal MPM-10 TRAIN CONTROL SYSTEM project), Ansaldo STS is focusing more closely on eco-design aspects, also in relation to customer environmental requirements, regarding for example:
- Analysis of conformity with the REACH – Registration, Evaluation and Authorisation of Chemicals regulation (an integrated chemical substance registration, evaluation, authorisation and restriction system established by the European Union);
- Analysis of material reuse and recyclability;
- Life Cycle Assessment (LCA).

LED technology

For some years now Ansaldo STS has been manufacturing safety semaphore systems in its Tito Scalo and Batesburgh plants using LED technology. This innovation has a positive impact on energy consumption, maintenance management and the disposal of materials after maintenance works. It is sufficient to think that traditional lamps are changed every 4 months on average, while LEDs operate continuously for at least 10 years.

Commitment to fight climate change

The group is committed to progressively reducing CO2 emissions in all areas of operations. The activities and initiatives to deal with climate change are undertaken within the context of a global-level carbon management strategy.
The following principles underpin Ansaldo STS group's climate strategy:
1. a global approach in developing mechanisms that take into account the commitment of all Ansaldo STS group facilities;
2. reasonable and feasible long-term objectives in order to establish a clear and realistic vision of the steps to be taken;
3. support in developing advanced technological solutions.

Consolidating the carbon management strategy involves defining an overall target for emissions reduction.

Communication, training and education

The group is increasingly focussed on training related to environmental issues.
Its specific training programme is fundamental to fostering a sense of environmental responsibility and constructive environment-related dialogue among employees and suppliers/contractors.
The group's training and educational programmes are designed to increase awareness of:
- the importance of complying with the environmental policy and the environmental management system procedures and requirements;
- actual or potential significant environmental impacts of activities and the environmental benefits that each individual can pursue;
- roles and responsibilities in order to comply with the environmental policy and environmental management system procedures and requirements, including the preparation of contingency and response plans;
- the potential consequences of deviating from the operating procedures;
- the potential offered by the effective implementation of a combined quality, environment and safety policy for business development and for the development of railway transport.

Subsequent environmental management system training sessions are held for personnel based on the specific corporate processes and related environmental aspects relevant to their activity.
Records are kept of all training provided to personnel in its facilities.

Training and educational sessions are coordinated by experts, who also produce relevant documentation.

General environment-related information

The operations of Ansaldo STS group's subsidiaries mainly comprise office-based activities which ensure the Group's full control in terms of direct and indirect environmental aspects.
The operations of several production facilities are fully compliant with the concepts of environmental protection and are among those which have been certified or for which the certification process is underway.

Management of water resources

Water consumption is purely for sanitary uses, except for at the Batesburg facilities, and is monitored and subject to regular sampling.

Generation and management of special waste

The activities carried out at the facilities involve the generation of non-toxic special waste, mainly paper and cardboard and plastic packaging. This is handled by companies authorised for its transport and recycling.
Hazardous special waste generated by maintenance activities is disposed of by the global service companies contracted by Ansaldo STS group.

Energy consumption, CO2 emissions, emission trading and other emissions

Energy consumption mainly stems from heating, lighting and utility power; it is monitored and is in line with consumption levels reported for similar businesses.
Ansaldo STS group regularly obtains RECS (Renewable Energy Certificate System) certification for the consumption of electrical energy at its Italian facilities. These 1 MWh certificates attest the use of renewable resources. Through the purchase and subsequent withdrawal of the certificate from the market, the group demonstrates its environmental commitment as it pays a higher amount than it would for electricity from conventional sources.

Management of dangerous substances

Dangerous substances used in group processes are handled in full respect of the environment by adopting all possible precautions.

6 Research and development

Research and development expense taken directly to profit or loss for the year ended 31 December 2016 totalled 38.6 million (€39.8 million in the previous year), against grants approximating €1.9 million (€2.9 million in the previous year).

With respect to financed projects under way, please take note of the following:
- Tesys Rail, to define strategies for the energy optimisation of rail traffic.
- the PON3 projects, through the Campania district DATTILO (High technology district for transport and logistics) and the Campania laboratory TOP IN (Optoelectronic technologies for industry):
- MODISTA, which deals with innovative solutions for the monitoring and preventative diagnosis of infrastructure and vehicle fleets in order to increase the levels of availability, efficiency and safety;
- OPTOFER for the application of innovative optoelectronic technologies for railway infrastructure monitoring and diagnosis;
- FERSAT, which studies a railway signalling system suitable for urban environments based on the innovative use of satellite technologies and their integration with existing technologies;
- NEMBO for the study and experimentation of highly-efficient innovative embedded systems for railway applications.

The projects financed by the European Commission are:
- NGTC, aimed at developing future rail and urban traffic control systems. Ansaldo STS heads up the work package related to satellite positioning;
- MANTIS, financed by the ECSEL Joint Undertaking (a public private body which provides European Commission grants for embedded system innovation) and the Ministry for Research, which aims to increase knowledge regarding the decision-making process for the railway system maintenance phase;
- IN2RAIL, funded by the European Commission as part of the Shif2Rail project; the project is aimed at optimising railway infrastructure reducing the construction and maintenance costs and increasing capacity.

In addition, the SHIFT2RAIL JU has started, for which the following projects were launched in the second half of the year:
- CONNECTA, *CONtributing to Shift2Rail's NExt generation of high Capable and safe TCMS and brAkes*, which aims to contribute to the next generation of TCMS architecture and components with wireless functionality, as well as the next generation of electronic braking systems;
- X2RAIL1, *Start-up activities for Advanced Signalling and Automation System*, which aims to respond to the long-term requirements of a future flexible and intelligent traffic management system;
- IN2SMART, Intelligent maintenance systems and strategies to provide a holistic, innovative solution for the maintenance of railway assets;
- ATTRACTIVE, *Advanced Travel Companion & Tracking Services* which aims to improve the travel experience of passengers using railway transport systems through the development of an integrated solution;
- FR8RAIL, Development of functional requirements for sustainable and attractive European rail freight, with a focus on facing the main challenges to the development of sustainable and attractive rail freight in Europe;
- PLASA, *Smart Planning and Safety for a safer and more robust European railway sector*, which intends to improve the customer experience and the robustness of the European railway sector. The objectives are, on one hand, to improve the planning activities of the various railway system operators through railway simulation and, on the other hand, to provide a methodology for managing railway system safety based on a risk assessment;
- IMPACT1, *Indicator Monitoring for a new railway PAradigm in seamlessly integrated Cross modal Transport chains* - Phase 1 for the creation of an integrated sub-system which allows for the representation of all Shift2Rail innovations;
- ARCC, *Start-up activities for freight automation*, essentially relating to freight traffic matters.

Lastly, please note that in 2016 the first activities inherent in IP2 began, for the introduction of innovative signalling and traffic management systems.

The European Commission also finances satellite technology projects. Specifically, the aim of the ERSAT EAV project, coordinated by Ansaldo STS, is to adopt and customise satellite technologies for railway signalling, notably with respect to checking that the EGNSS/EGNOS technology and the new Galileo services can be used in ERTMS signalling. As part of the ERSAT EAV project, in the first half of 2016 GNSS algorithms were defined which are capable of using Signal In Space from the GPS, EGNOS and Galileo constellations. In addition, the preliminary verifications were conducted on their proper behaviour, confirming the accuracy of the open and modular architecture of the Ansaldo augmentation system. Demonstrations of the proper functioning of the trial site in Sardinia were carried out as part of national workshops.

In 2016, activities began for the STARS and RHINOS projects, which are part of the European GNSS Agency (GSA) research programme, Horizon H2020.

For STARS, important research activities were completed in the first half of 2016 relating to the definition of the methodology and tools required to calculate the ground truth (temporal and spatial reference) with respect to which performance measurements can subsequently be taken. In addition, measurement activities were carried out at the Sardinia trial site in order to acquire Signal In Space (RF signal) and observation data relating to GPS, EGNOS and Galileo in different railway environmental conditions.

For RHINOS, in the first half of 2016 the phase of defining a functional architecture of an ERTMS system was completed, based on future satellite technology which can satisfy strict requirements such as track discrimination, high availability and integrity.

Development activities also took place on the following projects, which do not receive external funding:

- Ansaldo STS S.p.A.
  - MacroLok Interlocking
  - “FAST” tools suite
  - FDU-3G (new third-generation entity controllers)
  - OnBoard (ALA)
- Ansaldo STS France S.A.S.
  - CBTC (Communication-Based Train Control)
  - OnBoard (DIVA)
- Ansaldo STS USA Inc.
  - Automatic Train Supervision (ATS) – Metro applications
  - MicroLok Interlocking

Specifically:

- Activities to develop CBTC to integrate the functions requested for new contracts and the testing of the safety of ongoing contracts continued. ATS Metro evolutionary developments continued at the same pace;
- In 2016, the main planned upgrade activities were completed on the MacroLok Interlocking platform:
  - “retro-compatibility” with existing peripheral locations;
  - “geographical redundancy” of the centralised systems to ensure disaster recovery.
    In addition, there was an initial release of the new “FAST” tools suite dedicated to system design and configuration;
- It was a successful year for the completion of developments and the validation of the new third-generation entity controllers (FDU-3G). The new FDU-3Gs are an advanced technological product relying on the “ACEI” interface to meet the needs of Italian market applications, while also providing flexibility, modularity, scalability and performance for a broad range of railway and metro applications on a global scale;
- As regards the MicroLok Interlocking platform, in 2016 the development of a new CPU (ViPro) capable of managing PTC traffic with no need for additional HW continued;

- As concerns Onboard, activities continued for the release of the EVC 2.3.0d version installed on the ETR500/ETR1000 fleet along with activities for the resolution of obsolescence issues on the Italian platform (ALA), with the design of a new microprocessor card which borrows from the architecture and components of other developments already made by Ansaldo STS with a view to standardising HW solutions. On the SW front, Baseline 3 development activities continue, oriented towards its initial application in the contract in force with SNCF. Lastly, precise improvements have been made on the DIVA platform to improve its performance.

Research and development expense net of grants are as follows for the group companies:
- Ansaldo STS S.p.A.: €19.2 million;
- Ansaldo STS France S.A.S.: € 8.6 million;
- ASTS Australia PTY LTD: € 0.1 million;
- Ansaldo STS USA Inc.: € 8.8 million.

7 Human resources and organisation

The Human resources & organisation department continued to assist the business during the year by strengthening and disseminating specialist technical knowledge and a managerial culture to ensure greater efficiency and effectiveness in implementing internal processes and contract activities.
All training programmes aimed at managerial talent (key resources and rockets) were completed and the strategic initiatives meant to ensure the transfer and capitalisation of skills and technological expertise were rolled out.
Within the talent management programme, the HR department's efforts are focused on employees who are considered leaders in cutting-edge technology (knowledge owners). The group consists of 76 employees identified worldwide based on a structured process of interviews conducted by the Human Resources Department and champions, or those with the most expertise in the company in the relative technology.

In 2016, the Human Resources Department launched two surveys for the company population (the *Cultural Survey* and the *Global Employee Survey*) to collect feedback and suggestions aimed at improving employee alignment with business objectives and the motivation to achieve them.
The results of the surveys, in which roughly 80% of the global population participated, will be used to define actions for improvement with the involvement of the company management in the course of 2017.

7.1.1 Ansaldo STS

In 2016, the following changes were made in the company's governance:

On 30 March 2016, the board of directors acknowledged the resignations of directors Alistair Dormer (chairperson), Karen Boswell (deputy chairperson) and Stefano Siragusa (chief executive officer) from their offices in Ansaldo STS S.p.A..

On 13 May 2016, the shareholders' meeting of Ansaldo STS S.p.A. appointed Alistair Dormer as chairman of the company Ansaldo STS S.p.A..

On 16 May, the board of directors appointed Katherine Jane Mingay as deputy chairperson.

On 24 May 2016, the board of directors of the company appointed Andrew Thomas Barr as chief executive officer. In addition, on the same date, the board of directors appointed Andrew Thomas Barr as general manager reporting directly to the board itself.

Subsequently, on 21 October 2016, Katherine Jane Mingay resigned from the role of deputy chairperson effective immediately.

On 28 October 2016, the board of directors therefore appointed Alberto de Benedictis as deputy chairperson of the company's board of directors, effective immediately.

As a result, the following people are in office at 31 December 2016:
- Chairperson of the board of directors: Alistair Dormer;
- Deputy chairperson of the board of directors: Alberto de Benedictis;
- Chief executive officer and general manager: Andrew Thomas Barr.

In addition, on 15 March 2016 the board of directors appointed Giacomo Galli, managing director and country leader of the advisory firm Protiviti, ad interim manager of the internal audit unit of Ansaldo STS S.p.A. to replace Mauro Giganti, who resigned on 20 January 2016.

On 19 October 2016, Roberto Carassai signed a consensual termination agreement with the company, based on which he will take leave of his role as CFO and Manager in charge of financial reporting as of 28 February 2017.

On 25 November 2016, Marco Fumagalli left the company. Therefore, the Strategy, Quality & Improvement function was assigned to the CEO for the interim period.

7.1.2 Subsidiaries

On 4 December 2015, Davide Cucino resigned from his role as Executive Director Country Representative Ansaldo Railway System Trading (Beijing) LTD. effective immediately as of 1 January 2016.
On 25 November 2016, as noted above, Marco Fumagalli left the company and as a result also his role as Country Representative Ansaldo STS USA.

Therefore, the country representatives of Ansaldo STS's major entities at 31 December 2016 are as follows:
Country Representative Ansaldo STS France S.A.S.: Gilles Pascault.
Country Representative Ansaldo STS USA INC.: Joseph Pozza.
Country Representative Ansaldo STS Australia PTY LTD: Raphael Ferreira.
Country Representative Ansaldo Railway System Trading (Beijing) LTD: Luciano Libanori

7.1.3 Headcount at 31 December 2016

The group's headcount at 31 December 2016 numbered 3,951, up 179 employees (4.7%) on the 3,772 employees at 31 December 2015.

The group's average workforce for the year numbered 3,828 compared to 3,748 in 2015.

The headcount may be analysed as follows:

COMPANY/REGION	2016	2015	Change
ASTS Italy*	1,712	1,555	157
ASTS France**	868	822	46
ASTS USA	712	672	40
ASTS APAC	597	656	(59)
ASTS China	62	67	(5)

* Includes the employees of Ansaldo STS Deutschland GmbH
** Includes the employees of Ansaldo STS UK Ltd. and Ansaldo STS Sweden AB

The increase in Italy is mainly due to the hiring of resources from staffing providers (temporary staff/staff leasing and personnel from external firms) and the rise in personnel numbers at foreign branches.
The increase in the workforce in France and the US relates to the acquisition of new projects.
The drop in APAC resources is due to the downsizing of local structures.

7.2 Incentive plans

The Ansaldo STS group developed and regulated:
- a medium-term stock grant plan;
- a long-term cash incentive plan (LTIP).

These plans form part of a series of short-, medium- and long-term incentive plans, and represent a considerable portion of Ansaldo STS group management's total remuneration.
They are designed to link a significant portion of managers' remuneration to the achievement and improvement of financial ratios, as well as strategic objectives that are especially important for Ansaldo STS group's creation of value.

7.2.1 Stock grant plans

2014-2016 stock grant plan

On 20 February 2014, the Board of Directors approved on the basis of the proposal issued on February 17th, 2014 by the Remuneration Committee and subsequently passed by the shareholders on 15 April 2014 a three-years stock grant plan. The plan, which applies to a maximum of 46 employees plus the CEO and key managers, has the same vesting conditions as the 2012-2013 plan (EVA, FOCF and share performance against the FTSE Italia All-Share index).

Like the previous plan, the 2014-2016 stock grant plan complies with the recommendations of article 7 of the Code of conduct, as modified in March 2010 by Borsa Italiana S.p.A.'s Corporate Governance committee, and of the current article 6 of such code, as amended in December 2011, and confirms:

- a three-year vesting period for all beneficiaries;
- a two-year lock-up period for 20% of the shares due to the CEO and key managers;
- a very thin (2.5%) tolerance band, within which a proportional amount of the shares will vest on a linear basis, for each objective.

The group formally checked that the objectives underlying the granting of the portion related to 2015 were achieved.

All three objectives assigned of EVA, FOCF and share performance compared to the FTSE IT All-Share index were met for 2015. Accordingly, in compliance with the plan regulation, 100% of the shares initially earmarked were assigned to the beneficiaries.

The total shares due to the 33 current beneficiaries numbered 210,769. As a result of the three-year vesting period, the shares will actually be delivered in April 2018.

2012-2013 stock grant plan

In May 2016, the shares for the 2013 instalment of the 2012-2013 stock grant plan were delivered. Of the three objectives assigned for 2013 (EVA, FOCF and share performance compared to the FTSE Italia All-Share index) only the last one was met.

The company assigned 85,799 shares, net of the quota withheld from Italian investors to comply with the legal tax requirements and the quota for the lock-up clause.

7.2.2 LTIPs

2013-2015 cash plan - 2015 instalment

This plan was set up for the CEO and one key manager of Ansaldo STS S.p.A..

It has a three-year term and provides for a cash payment not exceeding one year's gross remuneration based on the achievement of agreed objectives.

The plan also includes an access threshold defined as the group's profit for the year which, as it was not reached, meant that no incentives were earned. Accordingly, checking that the 2015 objectives were met was immaterial even though the company did check them for documentary completeness.

2014-2016 cash plan - 2015 instalment

This plan was set up for the CEO and three key managers of Ansaldo STS.

It has a three-year term and provides for a cash payment not exceeding one year's gross remuneration based on the achievement of agreed objectives.

The plan also includes an access threshold defined as the group's profit for the year.

As the access threshold and one of the two performance objectives (working capital) were met, 50% of the amounts due will be paid to the beneficiaries. As a result of the annual vesting period, the cash will actually be paid in May 2017.

In May 2016, 100% of the 2014 tranche was disbursed.

2015-2017 cash plan - 2015 instalment
This plan was set up for the CEO and three key managers of Ansaldo STS S.p.A..

As the plan was not assigned at the time, in accordance with the decisions made in board of directors resolution of 3 November 2015, the share for the 2015 tranche will be equal to that disbursed for 2014.

As a result of the annual vesting period, the relative cash will actually be paid in May 2017.

7.3 Investments held by directors

Following the amendments made by CONSOB (the Italian commission for listed companies and the stock exchange) with resolution no. 18049 of 23 December 2011 to the Regulation adopted with resolution no. 11971 of 14 May 1999 (the "Issuer Regulation"), information on investments held in the issuer or companies controlled thereby by members of management bodies, general managers and key managers, as well as their spouses, unless legally separated, and minor children, directly or via subsidiaries, trustees or nominees referred to in the repealed article 79 of such regulation is now presented in compliance with the provisions of article 84-quater.4 of the regulation, in the remuneration report prepared pursuant to article 123-ter of Italian Legislative decree no. 58/98 and in compliance with schedule 7-bis of annex 3A to the Issuer Regulation. The remuneration report is made available to the public as provided for by law and regulations.

8 Financial disclosure

Financial market transactions

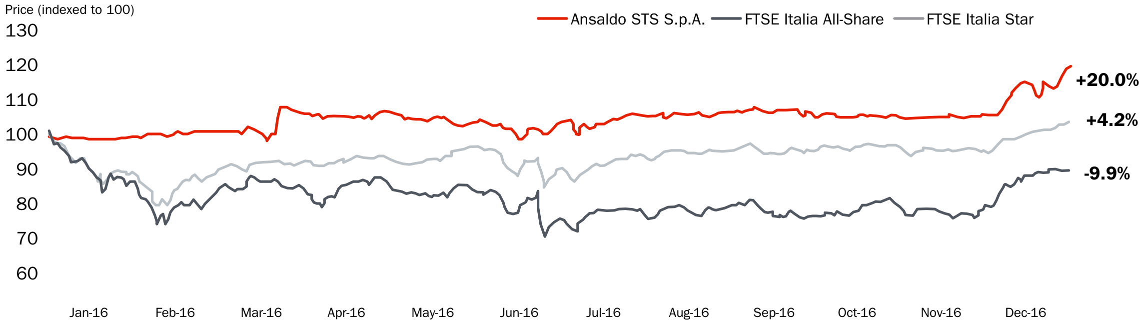
The Investor relations department liaises constantly with analysts and investors in order to grasp market disclosure requirements and accurately tailor communications from senior management.
The aim is to maintain ongoing dialogue with the Italian and international financial community, providing sensitive information for the market in a timely and transparent manner and ensuring that the parent is presented properly.
Total share coverage remained basically the same as last year, with 10 investment banks; in particular, only 5 of them maintained active involvement after the conclusion of the takeover bid by Hitachi on the Ansaldo STS share capital and the entry into the shareholding structure of the US Elliott fund, while the other 5, despite the fact that they did not officially stop their coverage, maintained a more detached attitude pending future developments.
On a quarterly basis before the financial results are issued, the Investor Relations department requests brokers assigned to the parent's share for their latest forecasts on its key financial indicators. This is an accurate update of sell-side analysts' perception, which is discussed and considered by management.
With regard to communication activities, the annual plan is used to plan and develop Investor Relations activities. The aim is to disseminate and communicate the group's market analyses, policies and strategies.
For the year 2016, Ansaldo STS temporarily suspended its participation in conferences and roadshows, focusing its communication activities with analysts and investors mainly through conference calls.
With the same resources and quality of its activities compared to 2015, the investor relations department continued to monitor and analyse the market and the competition in 2016, in order to support management.
In addition to the usual daily focus on and weekly collection of market "rumours", the department periodically distributes in-depth updated analyses on the performance of competitors, markets and main business sector analyses.
The website, which contains a section specifically dedicated to all Investor Relations topics, remains the main instrument for the collection and disclosure of financial information to stakeholders.

Share performance

The official share price in the **31 December 2015** to **31 December 2016** period rose from €9.87 to €11.84, up 20.0%.
The share's high for the year and all-time company record of €11.84 was recorded on 30 December 2016 and its low for the year of €9.73 on 18 March 2016.
An average of 201,762 shares were traded daily in the year, compared to 1,308,883 in 2015. The decrease in volumes was a direct consequence of the decline in the free float, following the conclusion of the takeover bid and the subsequent acquisitions by Hitachi Rail Italy Investments, which led to an increase in its investment to the current level of 50.772%, and as a result of the aggregate position of roughly 30% reached by the Elliott fund.

The FTSE Italia All-Share index lost 9.9% during the year while the FTSE Italia STAR index gained 4.2%.

Share performance compared to the main indices (base 100)



Key shareholders at 31 December 2016

Considering the communications sent to CONSOB and received by the parent as required by Italian Legislative Decree no. 25 of 15 February 2016, which entered into force on 18 March 2016, in implementation of directive 2013/50/EU of the European Parliament and of the Council of 22 October 2013, which amended art. 120, paragraph 2 of the Consolidated finance act, the table below gives a list of the investors which hold more than 3% of Ansaldo STS S.p.A.'s share capital at 31 December 2016:

Shareholder	No. of shares	% held
HITACHI RAIL ITALY INVESTMENTS	101,544,702	50.772
PAUL E. SINGER (as general partner, directly and indirectly, of the Limited Partnerships Elliott International, LP Elliott Associates, LP and The Liverpool Limited Partnership)	43,818,344	21.909
UBS	12,619,952	6.310

Key data per share

Earnings per share (€)	**2016**	2015
Basic and diluted EPS	**0.39**	**0.47**
Dividend per share	**0.18***	**0.18**

(*) proposed to the shareholders.

The parent distributed dividends for the first time in 2007, one year after its stock market listing on 29 March 2006.

The amount proposed to the shareholders to be distributed as dividends on the 2016 profit totalled €36,000 thousand (dividends with the same value were distributed in 2015).

9 Litigation

In general, the following should be noted:

1. Metro C Società Consortile per Azioni versus Roma Metropolitane S.r.l.
In 2007, the contractor of the works, design and construction of the new line "C" of the Rome metro (Metro C consortium, 14% held by Ansaldo STS S.p.A.), served the customer (Roma Metropolitane S.r.l.), with a request for arbitration concerning the additional fees and time required following delays in validating the T4 and T5 section executive designs.
Pending the conclusion of the arbitration, a compromise committee was set up, which at the end of 2011, proposed an outline agreement whereby the work plan would be redesigned and the claims reformulated on a lump-sum, all-inclusive basis, in the amount of €230 million.
In December 2012, CIPE (Interministerial economic planning committee) granted Roma Metropolitane the amounts necessary to financially cover the settlement agreement between Roma Metropolitane and Metro C; this resolution took effect and came into operation with its publication in the Italian Official Journal in June 2013.
Instead of implementing the provisions of the settlement agreement, the newly-installed municipal council challenged the contents. The situation became more tense and Metro C was forced to suspend/slow works given the enormous financial difficulties produced by the persistent failure to pay.
In September 2013, Metro C and Roma Metropolitane signed the "Implementing deed for CIPE resolution no. 127 of 11 December 2012 and resulting adjustment of the Contract of 12 October 2006" which, inter alia, recalculated the deadlines for the completion of the functional stages following the variations made during the work, ruled that Metro C was due €230 million plus €90 million for general contractor costs and VAT for the higher costs claimed, excluding any amounts related to additional claims, provided that Metro C waived all claims recognised at the deed date and that Roma Metropolitane would renounce appealing the partial award.
As the amounts certified and invoiced as per the Implementing deed were not paid (mainly the general contractor costs), in January 2014 Metro C was forced to notify Roma Metropolitane of the order of the court for the total amount of approximately €269 million plus VAT. Roma Metropolitane opposed such court order, requesting authorisation to summon the financing bodies, which was granted by the appeal judge at the first hearing held in September 2014. Accordingly, a second hearing was scheduled, where Metro C was not granted the provisional seizure of the amounts not yet paid by Roma Metropolitane to date, in addition to accrued interest.
At the subsequent hearing in September 2016, the Parties presented their conclusions and the Judge assigned a deadline for the submission of final statements and reply briefs, with the resulting reservation of judgment in the case.
At the end of 2015, as the amount provided for in the Implementing deed had not been paid nor the amounts invoiced for work regularly performed and certified, Metro C sued Roma Metropolitane S.r.l. and the Rome municipality, challenging a number of instances of non-compliance in the period from September 2013 to October 2015. It also requested payments of various amounts including the outstanding receivables of approximately €350 million referred to in the claim form.
At the hearing in September 2016, the discussion was held on the claim pursuant to article 186 ter of the Italian penal code; the Court of Rome assigned a deadline to Roma Metropolitane for any observations on the new calculations carried out by Metro C. We are waiting for the court to make a decision on the merits for the subsequent assignment of legal deadlines for the briefs pursuant to article 183 of the Italian Code of Civil Procedure.
Please note that the judicial authority intervened for analyses and the acquisition of documentation as part of the investigations initiated in relation to the construction of Line C of the Rome Metro, in particular in the relationships between the company and the client relating to the use of the system of reserves and the associated settlement agreements.

2. Ansaldo STS – Collapse of a building in Via Riviera di Chiaia
The company is involved in the criminal proceeding following the accident of 4 March 2013 where a building located in Via Riviera di Chiaia 72, Naples, partially collapsed, allegedly due to the works underway to construct the Arco Mirelli station for Line 6 of the Naples metro. In this project, the company is the operator appointed by the Naples municipality.
The alleged crimes are those assumed when recorded in the criminal records registry, i.e. articles 676 and 434 of the Italian Penal code: "*Destruction of buildings or other constructions" and "Collapse of constructions or other malicious disasters*".

In 2015 and until the first hearing before the Judge for the Preliminary Hearing, the company's defendants were called for spontaneous questioning. Based on the results of this questioning and the findings of the preliminary investigations, two employees were committed for trial while the motion to dismiss the case for the third employee is pending. During the preliminary hearing of June 2015, certain third parties joined the proceeding as civil parties seeking damages, including the Naples municipality. The Judge for the Preliminary Hearing set another hearing for December 2015, during which the company was held liable for compensation for pecuniary and moral damage to the civil parties. Following the request for the exclusion of ASTS as the civilly liable party and the integration of the notices to the civil parties, a series of scheduled hearings were held for the relative measures, as a result of which the exclusion of ASTS as the civilly liable party was declared and the requests for the admission of the requested evidence were handled. At the subsequent hearings in December 2016 and January 2017, the admitted witnesses were examined, and the examination of the experts appointed during the initial phase of the proceedings was scheduled for February 2017.
With respect to the civil proceedings related to the collapse of the buildings, 31 cases for claims for damages were pending in 2016.
The evaluation of the liability potentially arising from the claim is reflected in the value of the work in progress.

3. Ansaldo STS versus the Russian customer Zarubezhstroytechnology (ZST)
In relation to the project for the construction of a technological system in Libya for the Sirth-Benghazi section, halted by Zarubezhstroytechnology (ZST) - a Russian-based construction company which is the customer of the ASTS-Selex joint arrangement - at the beginning of August 2013, ZST enforced the advance payment bond and notified its intention to terminate the contract.
Ansaldo STS appealed immediately as per article 700 of the Italian Code of Civil Procedure to stop the bank (Banca Crédit Agricole) enforcing the guarantee (advance payment bond) issued for the advances paid on the contract price.
This contract had originally been halted by the customer in February 2011 following the well-known events of the "Arab spring".
The appeal as per article 700 of the Italian Code of Civil Procedure was lodged before the Milan Court in August 2013.
In August 2013, the Milan Civil Court upheld the claims of the applicants, Ansaldo STS and Selex ES, ordering Crédit Agricole not to enforce ZST's guarantee.
In October 2013, the judge reserved their judgement on whether the injunction on the bank paying the guarantee would be confirmed or not.
Later in October, the Milan Civil Court confirmed the decree of August, also ruling that Crédit Agricole and ZST, with the latter intervening in the proceedings, should pay the court costs.
In November 2013, the Milan Court issued an order whereby Crédit Agricole shall not pay the guarantee requested by ZST up to €29.3 million, which is the same amount claimed by Ansaldo STS for design and supplying activities carried out for the contract until its halt.
Accordingly, the guarantor bank paid the above amount subsequently replacing the Russian creditor and thereby acting retrospectively vis-a-vis Ansaldo STS which, at the beginning of December 2013, paid the bank €41.3 million.
Subsequently, in March 2014, ZST issued the statement of claim and formally launched the arbitration procedure at the Vienna International Arbitral Centre in order to obtain payment of the portion of the Advance payment bond not allowed by the Milan Court on a provisional basis.
In May 2014, the procedure to form the arbitration panel was completed with the appointment of the chairperson, in addition to the arbitrators. In January 2015, the ASTS-Selex joint arrangement filed its Statement of defence and counterclaim with the VIAC.
In May 2016, the arbitration panel rejected nearly all of the demands of Ansaldo STS, in particular requiring the reimbursement to ZST of the advance withheld, in addition to legal costs and interest accrued until the date of repayment.
The Company evaluated all other possible solutions with the support of its lawyers, and in the end deemed any other path unfeasible. In October, the Company paid ZST its part totalling €37.4 million.

4. AISA JV - Attiko Metro arbitration
In January 2014, the AIASA joint venture (of which Ansaldo STS holds 22%) issued an arbitration request to the Greek company ATTIKO METRO S.A. and the Greek Ministry for Infrastructure and Transport.
The aim is to request payment of greater expense and/or curtailments on some progress reports and/or extra costs incurred by the joint venture in completing the contract for the design and construction of the Thessaloniki metro.

Given the considerable number of issues under arbitration, and for a more efficient settlement of the dispute, six different arbitration panels were set up, each resolving on a certain group of claims made by the AIASA joint venture against ATTIKO METRO.
In December 2014, the arbitration panel deciding on Dispute 66 ruled that the current work schedule discretionally set by the customer is illegitimate. In light of such award, AIASA informed the customer Attiko Metro that the contract was terminated as its term had expired now that the discretional extension had expired.
To date a series of arbitration awards was also issued in relation to some of which an appeal was filed before the Athens Court of Appeals by Attiko Metro.
The AIASA JV and the customer Attiko Metro subsequently sought to define a contractual solution to allow for the resumption of works.
The evaluation of the liability potentially arising from the claim is reflected in the value of the work in progress.

5. ASTS /Alstom consortium - Société Nationale des Chemins de Fer Tunisiens arbitration
An arbitration panel was set up in May 2014 to resolve the dispute between the Ansaldo STS – Alstom consortium and Société Nationale des Chemins de Fer Tunisiens (SNCFT), in relation to the claim for compensation of greater expense and higher costs incurred by the consortium due to the technical variations and additional works requested by the customer in the technological upgrading of the railway line from Tunis Ville to Borj Cédria.
The parties formally set up the arbitration panel that will rule in accordance with the procedural rules of the International Chamber of Commerce (ICC) and pursuant to applicable French law.
The arbitration panel issued its final award in September 2016 in favour of the Ansaldo STS - Alstom consortium; with reference to the party ASTS, sums were recognised for damages due to delays and variations in the amount of roughly €2.5 million, including outstanding receivables, plus interest and legal costs.
The ensuing actions to have the results of the award become enforceable are currently being analysed.

6. Alstom Ferroviaria S.p.A. – Ansaldo STS S.p.A. / RFI
In 2016, proceedings began before the Puglia Regional Administrative Court in Bari, lodged by Alstom Ferroviaria S.p.A., which requested the cancellation of the measures awarding tender no. DAC1.2015.0008, for a contractual value of roughly €15.0 million, relating to the design and implementation of a line ACC-M system located in Bari Lamasinata and for the line systems in the Foggia-Bari section. The applicant requested the cancellation, after precautionary suspension, of the awards in favour of ASTS by way of succession. Following the ruling of the Puglia Regional Administrative Court in Bari no. 1210 of 20/10/2016 accepting Alstom’s petition against the acts of the tender carried out by RFI, an appeal was lodged before the Council of State. The hearing for the discussion of the suspension is expected to take place in the first few months of 2017, which will be followed by the judge’s decision on the merits.

7. AISAF SA – Ansaldo STS S.p.A.
In the second half of 2016, the company ISAF SA submitted an application for arbitration to the International Chamber of Commerce, Bucharest, Romania. The arbitration regards the Consortium formed by ISAF and ASTS in relation to the “Rehabilitation of the section Campina-Predeal on the railway line Bucharest – Brasov, Lot 4” project. It regards a demand for compensation for damages of up to around €5.0 million from ISAF SA in relation to non-payments in its favour by the customer, allegedly attributable to delays and/or omissions of ASTS. The arbitration proceedings are currently suspended pending the resolution of the separate arbitration between ISAF SA and the customer concerning the demand for compensation for damages caused by the above-mentioned non-payments in its favour and the relative delays and/or omissions. If it loses, ISAF SA would continue with the arbitration against ASTS, as it deems it liable for the damages suffered.
Attempts to amicably settle the dispute are currently under way.

10 Corporate Governance and ownership structure pursuant to article 123-bis of italian legislative decree no. 58 of 24 February 1998 and subsequent amendments and integrations (the consolidated finance act)

The Ansaldo STS shares have been listed on the Star segment of the markets organised and managed by Borsa Italiana S.p.A. since 29 March 2006.
They were included in the FTSE MIB index from 23 March 2009 to 23 March 2014 and in the FTSE Italia Mid Cap index from 24 March 2014 until 6 April 2015. They then were re-included in the FTSE MIB index from 7 April 2015 until 20 December 2015. Since 21 December 2015, the shares have been included in the FTSE Italia Mid Cap index again.
With the approval of the board of directors given on 19 December 2006, Ansaldo STS adopted the Code of conduct endorsed by Borsa Italiana S.p.A. in March 2006 and came into line with its requirements during 2007.
Borsa Italiana S.p.A.'s corporate governance committee adopted a new Code of conduct in December 2011. On 18 December 2012, Ansaldo STS's board of directors resolved to comply with the principles of this new code and to update its own governance systems to comply with them. The committee adopted a new version of such code in July 2014 and, furthermore, in July 2015; Ansaldo STS's corporate governance system basically comply with the latest version.
Lastly, Ansaldo STS is completing a review of its documents and operating protocols in order to align its corporate governance system with the new regulations on "market abuse" introduced with Directive 2014/57/EU (MAD 2) and Regulation (EU) 569/2014 (MAR), which repealed Directive 2003/6/EC and Directives 2003/124/EC, 2003/125/EC and 2004/72/EC. Detailed disclosure on the parent's corporate governance structure is provided in the section of the directors' report covering corporate governance and the adoption of the Code of conduct for listed companies related to 2016, approved by the board of directors on 27 February 2017, published at the same time as this annual report.
On 9 November 2015, the board of directors, pursuant to article 2386 of the Italian Civil Code, appointed Alessandra Piccinino as new non-executive independent director to replace Barbara Poggiali.
Furthermore, on 25 November 2015, in relation to Mr. Hirayangi's resignation, the board of directors pursuant to article 2386 of the Italian Civil Code, appointed Mario Garraffo as new non-executive independent director.
On the same date, the directors appointed Karen Boswell as the company's new deputy chairperson.
Ms. Piccinino and Mr. Garraffo remained in office until the next shareholders' meeting as provided for by article 2386 Paragraph 1 second part of the Italian Civil Code.
Subsequently, following the resignation on 30 March 2016 of Alistair Dormer, Karen Boswell and Stefano Siragusa, and as the majority of directors appointed by the shareholders' meeting held on 2 November 2015 were no longer in office, the board of directors, taking into account the provisions of article 16.8 of the by-laws, called the shareholders' meeting to, inter alia, appoint the new board of directors.
The shareholders' meeting held on 13 May 2016 determined that there would be nine directors and then appointed the new board for 2016-2018. In particular, the meeting appointed the following as new directors of Ansaldo STS S.p.A.: Alistair Dormer (chairperson), Katherine Jane Mingay, Andrew Thomas Barr, Giuseppe Bivona, Rosa Cipriotti, Mario Garraffo, Alberto de Benedictis, Fabio Labruna and Katharine Rosalind Painter.
Subsequently, at its meeting on 16 May 2016, the board of directors appointed Katherine Jane Mingay as deputy chairperson of the board of directors.
On 24 May 2016, the board of directors appointed Andrew Thomas Barr as chief executive officer and general manager of Ansaldo STS S.p.A. Lastly, following the resignation of Katherine Jane Mingay from the role of deputy chairperson of Ansaldo STS S.p.A. on 21 October 2016 effective immediately, during its meeting on 28 October 2016 the board of directors appointed Alberto de Benedictis as deputy chairperson of the board of directors.

During the meeting held on 28 October 2016, the board of directors resolved by majority to establish an executive committee (the bid committee). The committee was vested with the power to evaluate and approve bids for the acquisition of contracts for public and private sector customers exceeding €150 million and within the limit of €350 million per transaction. The executive committee consists of chairperson Alistair Dormer, chief executive officer Andrew Thomas Barr and director Katherine Jane Mingay.

The company's board of statutory auditors, appointed for the three-year term from 2014 to 2016 by the shareholders on 15 April 2014, includes Giacinto Sarubbi (chairperson), Renato Righetti and Maria Enrica Spinardi and the substitute statutory auditors Fabrizio Riccardo Di Giusto, Giorgio Mosci and Daniela Rosina.
On 16 May 2016, the board of directors appointed Francesco Gianni as board secretary.
On 16 May 2016, the board of directors appointed the members of the risk and control committee (Alberto de Benedictis – chairperson, Mario Garraffo and Katharine Rosalind Painter) and the appointments and remuneration committee (Katharine Rosalind Painter– chairperson, Alberto de Benedictis and Mario Garraffo).
On 24 May 2016, the board of directors also confirmed the CFO Roberto Carassai as manager in charge of financial reporting pursuant to article 154-bis of Italian Legislative decree no. 58/1998.
On 19 October 2016, Roberto Carassai signed a consensual termination agreement with the company, based on which he will take leave of his role as CFO and Manager in charge of financial reporting as of 28 February 2017.
On their appointment, the directors Giuseppe Bivona, Rosa Cipriotti, Fabio Labruna, Katharine Rosalind Painter, Alberto de Benedictis and Mario Garraffo confirmed that they meet the requirements for independence pursuant to the current legislation and the Code of conduct. The board of directors also assessed these requirements on 16 May 2016 and, with respect to Mr. Garraffo, on 24 May 2016. Also at the request of the board of statutory auditors, on 11 July and 19 December 2016 the board of directors evaluated whether director Alberto de Benedictis continued to meet the independence requirements.
Furthermore, in the meeting held on 24 May 2016, pursuant to principle 7.P.3 of the Code of conduct, the company's board of directors appointed the CEO, Andrew Thomas Barr, as director in charge of the internal control and risk management system. During the same meeting, the board of directors also confirmed the assignment of the internal audit function to the external company Protiviti S.r.l., and Giacomo Galli, managing director and country leader of that company as internal audit manager.
On the same date, the board of directors confirmed Nicoletta Garaventa and Alberto Quagli as chairperson and external member, respectively, of the company's supervisory body, as well as Filippo Corsi, general counsel of Ansaldo STS, as the internal member of the supervisory body.

Pursuant to the Code of conduct, during the first meeting of the board of statutory auditors, held on 15 April 2014, the statutory auditors Giacinto Sarubbi, Renato Righetti and Maria Enrica Spinardi, also confirmed that they meet the independence requirements pursuant to current legislation and stated thereby at the time of their appointment. Compliance with the independence requirements was subsequently verified and confirmed by the members of the board of statutory auditors during the meetings held on 9 December 2014 and 2 February 2016, for 2015, as well as on 28 November 2016.

With respect to the independent auditors appointed to perform the legally-required audit of Ansaldo STS S.p.A.'s financial statements, in their meeting of 7 May 2012, the shareholders awarded the audit engagement for the 2012-2020 period to KPMG S.p.A..
Following the resignation of the independent auditors KPMG S.p.A. received on 14 November 2016, at its meeting held on 24 November 2016 the board of directors called the ordinary shareholders' meeting to engage a new auditor.
On 19 January 2017, the shareholders awarded the audit engagement for the 2016-2024 period to EY S.p.A.
Lastly, on 25 February 2016 the board of directors approved the parent's remuneration policy for the year 2016, in compliance with the recommendations of article 6 of the Code of conduct, on the basis of the proposal prepared by the appointments and remuneration committee dated 25 February 2016.
On 25 February 2016, after discussion with the appointments and remuneration committee, the board of directors also approved the remuneration report prepared by the company pursuant to article 123-ter of the Consolidated finance act and article 84-quater of the Issuer regulation.
Finally, pursuant to article 123-ter, paragraph 6 of the Consolidated finance act, the ordinary shareholders' meeting held on 13 May 2016, approved the first section of the above-mentioned report required by article 123-ter, paragraph 3 of the Consolidated finance act, which describes the company's remuneration policy for its officers and key managers, and the procedure followed to implement and describe this policy.

Pursuant to articles 70, paragraph 8 and 71, paragraph 1-bis of the Issuer regulation, we note that, on 28 January 2013, in compliance with articles 70, paragraph 8 and 71, paragraph 1-bis of the Issuer regulation, the Board of directors of the parent resolved to opt out of the requirement to publish the relevant documents for transactions such as mergers, demergers, share capital increases via contributions in kind, acquisitions and sales.
The key corporate governance tools that the company has implemented in compliance with the most recent legislative and regulatory requirements, as well as by the Code of conduct and national and international best practices, are as follows:
- By-laws;
- Code of ethics;
- Organisational, management and control model pursuant to Italian Legislative decree no. 231/01;
- Shareholders' meeting regulations;
- Board of directors' regulations;
- Executive committee (i.e. bid committee) regulations;
- Risk and control committee regulations;
- Appointments and remuneration committee regulations;
- Related party transactions - Procedure adopted pursuant to article 4 of CONSOB regulation no. 17221 of 12 March 2010 as amended;
- Procedure for the establishment and updating of the list of people with access to privileged information;
- Procedure for the handling and communication of privileged and confidential information;
- Internal Dealing code of conduct.

For further details on the parent's corporate governance, reference should be made to the "Corporate governance report", comprising all disclosure required by article 123-bis of the Consolidated finance act, available on the company's website www.ansaldo-sts.com.

Milan, 27 February 2017

On behalf of the board of directors
The Chairperson
Alistair Dormer

Consolidated financial statements at **31 December 2016** and notes thereto

11 Consolidated financial statements

11.1 Consolidated Income statement

(€'000)	Note	**31.12.2016**	**of which, related parties**	31.12.2015	of which, related parties
Revenue	15.2	1,327,386	92,118	1,383,837	73,202
Other operating income	15.3	21,256	1,300	24,758	4,151
Purchases	15.4	(354,006)	(23,648)	(351,875)	(12,477)
Services	15.4	(500,283)	(41,339)	(561,014)	(44,282)
Personnel expense	15.5	(332,338)	-	(321,676)	-
Amortisation, depreciation and impairment losses	15.6	(18,325)	-	(18,725)	-
Other operating expense	15.7	(21,507)	(4)	(24,584)	-
Changes in finished goods, work-in-progress and semi-finished products		(513)	-	(264)	-
(-) Internal work capitalised	15.8	5,131	-	5,312	-
Operating profit		**126,801**		**135,769**	
Financial income	15.9	12,441	-	30,840	221
Financial expense	15.9	(26,938)	-	(35,221)	-
Share of profits (losses) of equity-accounted investees	15.10	4,345	-	5,324	-
Profit (loss)		**116,649**		**136,712**	
from discontinued operations	15.11	(38,746)	-	(43,676)	-
Profit for the year		**77,903**		**93,036**	
attributable to the owners of the parent		*77,968*		*93,228*	
attributable to non-controlling interests		*(65)*		*(192)*	
Earnings per share					
Basic and diluted		0.39		0.47	

11.2 Consolidated Statement of comprehensive income

(€'000)	Note	**31.12.2016**	31.12.2015
Profit for the year		**77,903**	**93,036**
Items that will not be reclassified to profit or loss:			
- Actuarial gains (losses) on defined benefit plans	14.14	(2,091)	633
- Income tax	15.11	703	(184)
		(1,388)	**449**
Items that will or may be reclassified to profit or loss:			
- Net change in fair value of cash flow hedges	14.14	4,511	(5,484)
- Net exchange rate gains	14.14	7,718	23,667
- Income tax	15.11	(1,767)	1,640
		10,463	**19,823**
Other comprehensive income, net of taxes		**9,074**	**20,272**
Comprehensive income for the year		**86,977**	**113,308**
Attributable to:			
- the owners of the parent		87,063	113,535
- non-controlling interests		(86)	(227)

11.3 Consolidated Statement of financial position

(€'000)	Note	31.12.2016	of which, related parties	31.12.2015	of which, related parties
ASSETS					
Non-current assets					
Intangible assets	14.2	49,262	-	51,546	-
Property, plant and equipment	14.3	85,198	-	87,012	-
Equity investments	14.4	73,047	-	69,041	-
Loans and receivables	14.5	45,485	25,522	41,832	21,211
Deferred tax assets	15.11	41,324	-	39,487	-
Other non-current assets	15.5	16,090	-	18,332	-
		310,406		**307,250**	
Current assets					
Inventories	14.6	125,067	-	121,217	-
Contract work in progress	14.7	358,865	-	346,353	-
Trade receivables	14.8	728,852	62,376	663,558	58,952
Tax assets	14.9	22,649	-	26,378	-
Loan assets	14.8	34,233	267	38,496	563
Other current assets	14.10	84,604	4	91,930	4
Cash and cash equivalents	14.11	305,586	-	304,306	-
		1,659,856		**1,592,238**	
Total assets		**1,970,262**		**1,899,488**	
EQUITY AND LIABILITIES					
Equity					
Share capital	14.12	100,000	-	100,000	-
Reserves	14.13-14.14	607,626	-	554,787	-
Equity attributable to the owners of the parent		*707,626*		*654,787*	
Equity attributable to non-controlling interests	*14.15*	*220*	-	*306*	-
Total equity		**707,846**		**655,093**	
Non-current liabilities					
Employee benefits	14.18	36,048	-	33,155	-
Deferred tax liabilities	15.11	12,175	-	10,365	-
Other non-current liabilities	14.19	12,908	-	11,792	-
		61,131		**55,312**	
Current liabilities					
Progress payments and advances from customers	14.7	598,012	-	635,785	-
Trade payables	14.20	458,119	19,671	415,973	25,247
Loans and borrowings	14.16	1,780	-	4,128	2,500
Tax liabilities	14.9	8,978	-	10,816	-
Provisions for risks and charges	14.17	14,040	-	11,126	-
Other current liabilities	14.19	120,356	410	111,255	402
		1,201,285		**1,189,083**	
Total liabilities		**1,262,416**		**1,244,395**	
Total liabilities and equity		**1,970,262**		**1,899,488**	

11.4 Consolidated Statement of cash flows

(€'000)	Note	**31.12.2016**	**of which, related parties**	31.12.2015	of which, related parties
Cash flows from operating activities					
Profit ofr the year		77,903	-	93,036	-
Share of profits (losses) of equity-accounted investees		(4,345)	-	(5,324)	-
Income taxes		38,746	-	43,676	-
Italian post-employment and other employee benefits		787	-	613	-
Stock grant plans		4,731	-	1,891	-
Net gains on the sale of assets		71	-	87	-
Net financial income		14,497	-	4,381	-
Amortisation, depreciation and impairment losses		18,325	-	18,725	-
Accruals to/reversals of provisions for risks		4,814	-	2,344	-
Other operating income/expense		3,118	-	7,802	-
Write-downs/reversals of write-downs of inventories and work in progress		(4,498)	-	(5,223)	-
Cash flows from operating activities	**17**	**154,149**		**162,008**	
Inventories		(2,981)	-	(14,223)	-
Work in progress and progress payments and advances from customers		(63,094)	-	(28,366)	-
Trade receivables and payables		(17,077)	(2,152)	51,483	(54,318)
Changes in working capital	**17**	**(83,152)**		**8,894**	
Changes in other operating items		17,041	8	(33,747)	4,377
Net financial items		(13,388)	-	(1,749)	-
Taxes paid		(20,928)	-	(33,003)	-
Cash flows generated (used in) from operative activities:	**17**	**53,722**		**102,403**	
Cash flows from investing activities:					
Investments in property, plant and equipment and intangible assets and others		(15,812)	-	(14,764)	-
Sales of property, plant and equipment and intangible assets and others		3,278	-	2,011	-
Acquisition of equity investments, net of cash acquired		-	-	4,000	-
Sales of equity investments		(39)	-	19	-
Cash flows used for strategic transactions		(2,100)	-	(15,092)	-
Cash flows used in investing activities		**(14,673)**		**(23,826)**	
Cash flows from financing activities:					
Net change in other financing activities		(1,290)	(2,796)	(18,027)	(12,464)
Dividends paid		(36,000)	-	(30,000)	-
Cash flows from (used in) financing activities		**(37,290)**		**(48,027)**	
Net increase in cash and cash equivalents		1,759	-	30,550	-
Net exchange rate gains		(479)	-	3,689	-
Opening cash and cash equivalents		304,306	-	270,067	-
Closing cash and cash equivalents		**305,586**		**304,306**	

11.5 Consolidated Statement of changes in equity

Changes in equity are shown in the following table:

(€'000)	Share capital	Retained earnings and consolidation reserves	Hedging reserve	Stock grant reserve	Translation reserve	Other reserves	Equity attributable to the owners of the parent	Equity attributable to non-controlling interests	Total equity
Equity at 1 January 2015	**99,999**	**445,581**	**4,015**	**4,262**	**3,458**	**16,329**	**573,644**	**1,278**	**574,922**
Reclassification from/to reserves	-	64	-	(64)	-	-	**-**	-	**-**
Change in consolidation scope	-	(4,368)	-	-	1,562	-	**(2,805)**	11	**(2,795)**
Net change in stock grant reserve	-	-	-	413	-	-	**413**	-	**413**
Other comprehensive income (expense), net of taxes	-	-	(5,484)	-	23,702	2,089	**20,307**	(35)	**20,272**
Allocation of profit for the year to the legal reserve	-	-	-	-	-	-	**-**	-	**-**
Dividends	-	(30,000)	-	-	-	-	**(30,000)**	(755)	**(30,755)**
Net change in treasury shares	1	(1)	-	-	-	-	**-**	-	**-**
Other changes	-	-	-	-	-	-	**-**	-	**-**
Profit for the year ended 31 December 2015	-	93,228	-	-	-	-	**93,228**	(192)	**93,036**
Equity at 31 December 2015	**100,000**	**504,504**	**(1,469)**	**4,611**	**28,722**	**18,418**	**654,787**	**306**	**655,093**
Equity at 1 January 2016	**100,000**	**504,504**	**(1,469)**	**4,611**	**28,722**	**18,418**	**654,787**	**306**	**655,093**
Reclassification from/to reserves	-	-	-	-	-	-	**-**	-	**-**
Change in consolidation scope	-	(2,022)	-	-	293	-	**(1,728)**	-	**(1,728)**
Net change in stock grant reserve	-	-	-	3,504	-	-	**3,504**	-	**3,504**
Other comprehensive income (expense), net of taxes	-	-	4,511	-	7,739	(3,155)	**9,096**	(21)	**9,074**
Allocation of profit for the year to the legal reserve	-	-	-	-	-	-	**-**	-	**-**
Dividends	-	(36,000)	-	-	-	-	**(36,000)**	-	**(36,000)**
Net change in treasury shares	-	-	-	-	-	-	**-**	-	**-**
Other changes	-	-	-	-	-	-	**-**	-	**-**
Profit for the year ended 31 December 2016	-	77,968	-	-	-	-	**77,968**	(65)	**77,903**
Equity at 31 December 2016	**100,000**	**544,451**	**3,042**	**8,115**	**36,755**	**15,263**	**707,626**	**220**	**707,846**

12 Notes to the consolidated financial statements at 31 December 2016

12.1 General information

The parent Ansaldo STS S.p.A. is a company limited by shares with its registered office in Via Paolo Mantovani 3-5, Genoa and a branch in Via Argine 425, Naples. It has been listed on the Star segment of the stock exchange managed by Borsa Italiana S.p.A. since 29 March 2006. Its shares were included in the FTSE MIB index from 23 March 2009 to 23 March 2014 and in the FTSE Italia Mid Cap index from 24 March 2014 until 6 April 2015. They then were re-included in the FTSE MIB index from 7 April 2015 until 20 December 2015. Since 21 December 2015, the shares have been included in the FTSE Italia Mid Cap index again.

The parent's fully subscribed and paid-up share capital equals €100,000,000.00, comprising 200,000,000 ordinary shares of a nominal amount of €0.50 each.

Please note that Hitachi Rail Italy Investments S.r.l. currently holds 101,544,702 ordinary shares of the company, equal to 50.772% of the share capital of Ansaldo STS S.p.A.
In addition, please note that Hitachi Ltd. exercises management and coordination activities with respect to Ansaldo STS S.p.A. pursuant to articles 2497 et seq. of the Italian Civil Code.

Ansaldo STS group operates internationally in the design, construction and operation of signalling and transport systems for above-ground and underground railway lines, both for freight and passengers. It operates worldwide as a main contractor and supplier of turnkey systems. Ansaldo STS S.p.A., as parent, also exercises industrial and strategic guidance and control, coordinating the activities of its operating subsidiaries (together, "Ansaldo STS group" or the "group").

12.2 Basis of preparation

Ansaldo STS group's consolidated financial statements at 31 December 2016 are drafted in accordance with the International Financial Reporting Standards (IFRS) endorsed by the European Commission pursuant to EC regulation no. 1606/2002 of 19 July 2002, integrated by the interpretations of the Standing Interpretations Committee (SIC) and the International Financial Reporting Standard Interpretations Committee (IFRSIC) issued by the International Accounting Standards Board (IASB) applicable at such date.
These consolidated financial statements have been prepared on a cost basis, except for those captions which, as required by the IFRS, are to be recognised at fair value or for which this methodology is chosen, as described in the relevant accounting policies.
They are comprised of an income statement, a statement of comprehensive income, a statement of financial position, a statement of cash flows, a statement of changes in equity and the notes thereto.
As permitted by IAS 1, assets and liabilities are presented in the statement of financial position as current and non-current (assets and liabilities are considered current when it is expected to realized or settled in their normal operating cycle), while income statement captions are shown by nature. The statement of cash flows was prepared using the indirect method. The income statements presents the Operating profit (EBIT), a significant indicator of the operating performance of the Group. The Operating profit is equal to the unadjusted profit before income taxes and financial income and expense. It does not include income and expense on non-consolidated equity investments and securities or the gains (losses) on the disposal of consolidated equity investments, classified in "Financial income and expense" in the financial statements or, for equity-accounted investees, in the caption "Share of profit or loss of equity-accounted investees".

Amounts are shown in thousands of euros, as allowed by law, unless stated otherwise.
The consolidated financial statements of Ansaldo STS group at 31 December 2016 were approved and authorised for publication on 27 February 2017 by the board of directors in accordance with ruling legislation.
These consolidated financial statements have been prepared in accordance with the IFRS endorsed by the EU and audited by EY S.p.A..

12.2.1 Accounting policies

Basis and scope of consolidation

Ansaldo STS group's consolidated financial statements at 31 December 2016 include the financial statements at 31 December 2016, or at the date of the most recently approved financial statements, as detailed in note 13.4, of the companies/entities in the consolidation scope (the "consolidated entities") drafted pursuant to the IFRS endorsed by the EU applied by Ansaldo STS group. The consolidated entities are listed below, showing the group's related direct or indirect interest therein:

Companies consolidated on a line-by-line basis

NAME	INVESTMENT TYPE	REGISTERED OFFICE	SHARE/ QUOTA CAPITAL ('000)	CURRENCY	INVESTMENT %
ANSALDO STS AUSTRALIA PTY LTD	Direct	Eagle Farm (Australia)	5,026	AUD	100
ANSALDO STS SWEDEN AB	Direct	Solna (Sweden)	4,000	SEK	100
ANSALDO STS UK LTD	Direct	London (United Kingdom)	1,000	GBP	100
ANSALDO STS ESPAÑA S.A.U.	Indirect	Madrid (Spain)	1,500	EUR	100
ANSALDO STS BEIJING LTD	Indirect	Beijing (China)	837	EUR	80
ANSALDO STS HONG KONG LTD	Indirect	Hong Kong (China)	100	HKD	100
ANSALDO STS FRANCE Société par actions simplifiée	Direct	Les Ulis (France)	5,000	EUR	100
UNION SWITCH & SIGNAL INC	Indirect	Wilmington (Delaware USA)	1	USD	100
ANSALDO STS MALAYSIA SDN BHD	Indirect	Petaling Jaya (Malaysia)	3,000	MYR	100
ANSALDO STS CANADA INC	Indirect	Kingstone (Canada)	-	CAD	100
ANSALDO STS USA INC	Direct	Wilmington (Delaware USA)	0.001	USD	100
ANSALDO STS USA INTERNATIONAL CO	Indirect	Wilmington (Delaware USA)	1	USD	100
ANSALDO STS TRANSPORTATION SYSTEMS INDIA PVT LTD	Indirect	Bangalore (India)	5,612,915	INR	100
ANSALDO STS DEUTSCHLAND GMBH	Direct	Munich (Germany)	26	EUR	100
ANSALDO RAILWAY SYSTEM TRADING (BEIJING) LTD	Direct	Beijing (China)	1,500	USD	100
ANSALDO STS SOUTHERN AFRICA PTY LTD	Indirect	Gaborone (Botswana)	0.1	BWP	100

Companies measured using the equity method

NAME	INVESTMENT TYPE	REGISTERED OFFICE	SHARE/ QUOTA CAPITAL ('000)	CURRENCY	INVESTMENT %
ALIFANA SCARL	Direct	Naples (Italy)	26	EUR	65.85
ALIFANA DUE SCARL	Direct	Naples (Italy)	26	EUR	53.34
PEGASO SCARL (in liq.)	Direct	Rome (Italy)	260	EUR	46.87
Metro 5 S.p.A.	Direct	Milan (Italy)	53,300	EUR	24.6
Metro Brescia S.r.l.	Direct	Brescia (Italy)	4,020	EUR	19.796
INTERNATIONAL METRO SERVICE S.r.l.	Direct	Milan (Italy)	700	EUR	49
BALFOUR BEATTY ANSALDO SYSTEMS JV SDN BHD	Indirect	Kuala Lumpur (Malaysia)	6,000	MYR	40

Companies measured using the cost method

NAME	INVESTMENT TYPE	REGISTERED OFFICE	SHARE/ QUOTA CAPITAL ('000)	CURRENCY	INVESTMENT %
Metro C S.c.p.A.	Direct	Rome (Italy)	150,000	EUR	14
I.M. Intermetro S.p.A.	Direct	Rome (Italy)	2,461	EUR	16.67
Società Tram di Firenze S.p.A.	Direct	Florence (Italy)	7,000	EUR	3.8
Iricav Uno consortium	Direct	Rome (Italy)	520	EUR	17.44
Iricav Due consortium	Direct	Rome (Italy)	510	EUR	17.05
Ferroviario Vesuviano consortium	Direct	Naples (Italy)	153	EUR	33.34
San Giorgio Volla consortium	Direct	Naples (Italy)	71	EUR	25.46
San Giorgio Volla2 consortium	Direct	Naples (Italy)	71	EUR	25.46
Cris consortium	Direct	Naples (Italy)	2,377	EUR	1
Ascosa Quattro consortium	Direct	Rome (Italy)	57	EUR	24.92
Siit S.C.p.A.	Direct	Genoa (Italy)	600	EUR	2.33
Saturno Consortium	Direct	Rome (Italy)	31	EUR	33.34
Train consortium	Direct	Rome (Italy)	120	EUR	4.55
Sesamo S.c.a.r.l.	Direct	Naples (Italy)	100	EUR	2
ISICT consortium	Direct	Genoa (Italy)	43	EUR	14.29
Cosila consortium (in liq.)	Direct	Naples (Italy)	100	EUR	1
MM4 consortium	Direct	Milan (Italy)	200	EUR	17.68
Radiolabs consortium	Direct	Rome (Italy)	258	EUR	25
SPV M4 S.p.A.	Direct	Milan (Italy)	26,700	EUR	5.55
Ansaldo STS do Brasil Sistemas de Transporte Ferroviario e Metropolitano LTDA	Direct	Fortaleza (Brazil)	1,000	BRL	99.99
Metro de Lima Linea 2 S.A.	Direct	Lima (Peru)	368,808	PEN	12.24
TOP IN S.ca.r.l.	Direct	Naples (Italy)	80	EUR	5.29
D.I.T.S. Development & Innovation in Transportation Systems S.r.l.	Direct	Rome (Italy)	40	EUR	12
Dattilo S.c.a.r.l.	Direct	Naples (Italy)	100	EUR	14
S.p. M4 S.c.p.A. (in liq.)	Direct	Milan (Italy)	360	EUR	16.9
MetroB S.r.l.	Direct	Rome (Italy)	20,000	EUR	2.47

In November, the subsidiary Kazakhstan TZ Ansaldo STS Italy LLP was definitively wound up with the closure of the company, a process that was activated in June 2013.

Subsidiaries and jointly-controlled entities
Entities over which Ansaldo STS group has control by owning directly or indirectly more than half of the voting rights or by exerting the power to govern the financial and operating policies of entities/companies, so as to obtain benefits from their activities, including regardless of the percentage of equity investments, are consolidated on a line-by-line basis.

All subsidiary entities are included in the scope of consolidation as of the date on which control is acquired by the group. The entities are excluded from the scope of consolidation as of the date on which the group transfers control.
Investments in entities (including special purpose entities) control over which is exercised jointly with third parties are equity-accounted.
The reporting period of all consolidated companies ends on 31 December. The group's consolidated financial statements are based on the figures at 31 December 2016.

Business combination transactions
Business combination transactions are accounted for by applying the purchase method when the acquisition cost is equal to the fair value, at the acquisition date, of the assets acquired, the liabilities incurred or assumed and any equity instruments issued by the buyer. The cost of the transaction is allocated by recognising the identifiable assets, liabilities and contingent liabilities of the acquiree at their fair values at the acquisition date. Any difference between the consideration paid and the acquisition-date, the minority recorded applying the partial goodwill method,

and fair value of the acquired assets and liabilities is allocated to goodwill. If the purchase price allocation process gives rise to negative goodwill, it is recognised in profit or loss at the acquisition date.

Acquisition-related costs are recognised in profit or loss when the related services are rendered.
In the event of acquisition of control of investees, goodwill is recognised only to the extent of the parent's share. Non-controlling interests are calculated in proportion to the equity investments held by non-controlling interests in the acquiree's identifiable net assets.
In a business combination achieved in stages, when control is taken, the previously-held equity interests in the acquiree are remeasured at fair value and the resulting gain or loss is recognised in profit or loss.
Balances related to transactions between consolidated companies are eliminated, specifically as relate to receivables and payables in place at year end, costs and revenue and financial income and expense and other items recognised in profit or loss.

Other equity investments
Equity investments over which the company has significant influence, generally accompanied by an investment percentage of between 20% (10% if listed) and 50% (investments in associates), are measured using the equity method. When this method is applied, the carrying amount of the investment equals equity adjusted, where necessary, to reflect the application of the IFRS endorsed by the EU. It includes the recognition of goodwill, net of impairment losses, when this is identified upon acquisition and following the effects of adjustments required by the standards governing the preparation of consolidated financial statements. Gains and losses realised among companies consolidated using the equity method, are eliminated, as are those among other group companies, including those consolidated on a line-by-line basis.
The fair value of equity investments in portfolio, provided that such criterion is applicable, is calculated based on the bid price of the last trading day of the month to which the IFRS financial statements refer (31 December 2016 in the case of these consolidated financial statements), or based on financial valuation techniques for unlisted instruments as set forth by IFRS13.
Any equity investments held for sale, such as those that are acquired solely for the purpose of sale within twelve months, are classified separately as "assets held for sale".

Entities not consolidated
Following the cases in which the entities are not consolidated line-by-line:
- non-equity consortium companies as well as controlling interests in equity consortia which, as the costs are charged back to the shareholders, do not have their own operating results and whose financial statements, net of intra-group assets and liabilities, do not have significant equity values or;
- companies in certain phases of evolution, for example those which are no longer operating, have no assets and have no personnel or;
- companies whose liquidation process appears to be almost concluded, would be irrelevant from a quantitative and qualitative perspective in order to provide a true and fair view of the equity, economic and financial position of the Group. These investments are equity-accounted.

These entities are not consolidated on line by line basis because, their consoldiation would irrelevant or potentially distortive for understanding the operation performance of the Group. With particular reference to consortium, the are non-profit vehicles set up for sharing common costs related to a specific project; for this reason consortium normally has no profit or loss at year-end.

Segment reporting
Starting in 2014, following an internal reorganisation and business management restructuring, the business segments identified previously (signalling and transportation solutions) were merged together due to their similarities in terms of the nature of the products and services, production processes and customer type; as a result, a single operating segment has been identified pursuant to IFRS 8 *Operating Segments*.
In addition, in the case of the Ansaldo STS Group, the single operating segment also corresponds to a single cash generating unit (CGU) for the purposes of IAS 36 *Impairment of Assets*.

Functional currency
The balances included in the financial statements of each group company/entity are recognised in the currency of the primary economic environment in which the entity operates (functional currency). The consolidated financial statements of Ansaldo STS group are presented in euros, which is the parent's functional currency.

Foreign currency transactions

Foreign currency monetary items, cash and cash equivalents, assets and liabilities to be received or settled in established or determinable monetary amounts, etc., as well as non-monetary items, advances to suppliers of goods and/or services, goodwill, intangible assets, etc., are initially recognised at the transaction date exchange rate. Subsequently, monetary amounts are translated into the functional currency at the closing rate and any translation differences are taken to profit or loss. Non-monetary amounts are maintained at the exchange rate ruling at the date of the transaction, unless continuing adverse economic trends affect the rate, in which case exchange rate differences are taken to profit or loss.

Translation of financial statements of foreign operations

The rules for the translation of financial statements of foreign operations into the functional currency, with the exception of currency in hyper-inflationary economies (which do not affect the group), are as follows:

- assets and liabilities are translated at the closing rate;
- costs and revenue, income and expense are translated at the average exchange rate of the year or at the transaction date exchange rate if it varies significantly from the average rate of the year;
- exchange rate gains or losses arising from the translation of captions at a rate that differs from the closing rate and from the translation of opening equity at a rate that differs from the closing rate are taken to the translation reserve.
  This reserve is released to profit or loss when the equity investment is sold.

Goodwill and fair value adjustments relating to the acquisition of foreign operations are recognised as assets and liabilities of the foreign operation and translated at the closing rate.

The following exchange rates were adopted to translate the foreign currency financial statements and balances for the current and previous years:

	Spot rate at 31.12.2016	**Average rate for the year ended 31.12.2016**	Spot rate at 31.12.2015	Average rate for the year ended 31.12.2015
USD	1.05410	1.10641	1.08870	1.11011
CAD	1.41880	1.46661	1.51160	1.41774
GBP	0.85618	0.81889	0.73395	0.72614
HKD	8.17510	8.58851	8.43760	8.60610
SEK	9.55250	9.46622	9.18950	9.35661
AUD	1.45960	1.48878	1.48970	1.47647
INR	71.59350	74.35059	72.02150	71.19291
MYR	4.72870	4.58497	4.69590	4.33230
BRL	3.43050	3.86128	4.31170	3.69178
CNY	7.32020	7.34907	7.06080	6.97644
VEB	10.527.80000	10.242.00833	6.850.21000	6.984.39833
BWP	11.24370	12.05322	12.17406	11.22919
ZAR	14.45700	16.28110	16.95300	14.15113
KZT	351.52400	378.43994	370.34852	246.76506
JPY	123.40000	120.29606	131.07000	134.31464
AED	3.86960	4.06156	3.99662	4.07524
KRW	1.269.36000	1.284.66726	1.280.78000	1.255.83391

Intangible assets

Intangible assets are identifiable non-monetary assets without physical substance that generate future economic benefits for the group. They are recognised at purchase and/or production cost, including directly related charges incurred to prepare them for use, net of accumulated amortisation, except for assets with an indefinite useful life, and any impairment losses. Amortisation begins when the asset becomes available for use and is calculated systematically over the residual useful life of each asset. Amortisation is calculated considering the actual use of the asset in the year in which an intangible asset is initially recognised.

(i) Goodwill
Goodwill recognised as an intangible asset arises from business combinations and reflects an excess in the acquisition cost of the business or business unit over the total fair value at the acquisition date of acquired assets and liabilities. As it has an indefinite useful life, goodwill is not amortised. Instead, it is tested for impairment at least once a year, unless the market and management indicators identified by the group show that the test has to be conducted when preparing interim financial statements.

The Group identifies the entire business as its only CGU. The organisational and business breakdown between structures responsible for revenue (sales/bidding, project management and operation & maintenance) and those that generate costs does not make it possible to divide the operating segment into further independent cash generating units aside from by individual project (by contract) which, as it is not independent, cannot represent a CGU.
Goodwill on acquisitions of consolidated companies is recognised in intangible assets, while that related to unconsolidated subsidiaries or associates is included in the carrying amount of the related equity investments.

(ii) Concessions, licences and trademarks
These include trademarks identifying the origin of products or goods from a specific company and licences to use third-party know-how or software. The costs, including direct and indirect expenses incurred to obtain these rights, are capitalised after the rights have been acquired and are amortised systematically over the shorter of the period of expected use and the period for which the right has been acquired.

(iii) Research and development expense
Research expense is taken to profit or loss when incurred.
Internally generated intangible assets and the related development expense are recognised only when all the following conditions exist simultaneously:
- the asset can be identified;
- the asset may generate future economic benefits;
- the cost to develop the asset can be measured reliably;
- there is a reference market for the product generated by the development activity.

If these conditions are not met, development expense is recognised in profit or loss when incurred. This expense, which is capitalised only when the four above conditions are met, is amortised on a straight-line basis over the asset's useful life.
The initial capitalisation of development costs is also based on whether the management's opinion on the technical and economic feasibility of the project is confirmed, and capitalisation includes only expenses incurred which may be attributed directly to the development process.

Leased assets
(i) Finance leases where group companies are lessees
As lessee, at the date of initial recognition, the group recognises leased assets under assets and recognises a financial liability at the same time equal to the lower of the asset's fair value and the present value of minimum future payments due at inception of the lease, using the implicit interest rate of the lease or the marginal interest rate of the loan. Subsequently, the group takes amortisation applied to the asset and interest separated from the payments of the year to profit or loss.

(ii) Finance leases where group companies are lessors
At the date of initial recognition, the leased asset is derecognised and a receivable of an amount equal to the net investment in the lease is recognised. The net investment in the lease is the aggregate of the minimum lease payments and any unguaranteed residual value, discounted at the interest rate implicit in the lease. Subsequently, the group expenses finance income over the lease term on a systematic basis, to reflect a constant periodic rate of return on the residual net investment.
Estimated unguaranteed residual values are reviewed regularly to check if any impairment indicators exist.

(iii) Operating leases
Operating lease income and expense are taken to profit or loss over the term of the lease on a straight-line basis.

Property, plant and equipment

Property, plant and equipment are measured at purchase or construction cost, net of accumulated depreciation and any impairment losses. Cost includes direct charges incurred to prepare assets for use and any disposal and removal costs that will be incurred to restore the site to its original conditions.
Costs for ordinary and/or routine maintenance and repairs are taken directly to profit or loss when incurred.
Costs to expand, upgrade or improve owned or leased assets are capitalised only to the extent they meet the requirements to be classified separately as assets or part of an asset. Grants related to assets are taken as a direct decrease in the cost of the asset to which they relate.

The carrying amount of each asset is depreciated on a systematic basis. Depreciation is calculated on a straight-line basis each year over the residual useful lives of assets. Depreciation is calculated considering the actual use of the asset in the year in which an item of property, plant and equipment is initially recognised. The following table lists depreciation periods for each item of property, plant and equipment:

Land:	indefinite useful life
Buildings:	20-33 years
Plant and machinery:	5-10 years
Equipment:	3-7 years
Other assets:	3-8 years

The estimated residual value and the useful life of an asset are reviewed periodically.
Depreciation of an asset ceases on the date the asset is sold or classified as held for sale.
If a depreciable asset is comprised of separately identifiable components with estimated useful lives that differ significantly from the other components comprising the asset, depreciation is calculated separately for each component, using the component approach.
Profits and losses on the sale of assets or groups of assets are measured by comparing the sales price with the related carrying amount.
Borrowing costs that are directly attributable to the acquisition, construction or production of an asset that necessarily takes a substantial period of time to get ready for its intended use or sale (qualifying assets) are capitalised as part of the cost of that asset.

Investment property

Property held to earn rentals or for capital appreciation is classified under “Investment property” and is measured at purchase or production cost, increased by transaction costs, if any, and net of accumulated depreciation and any impairment losses.

Impairment losses

Assets with an indefinite useful life are not depreciated/amortised, but are tested for impairment annually.
Depreciable assets are tested to check whether there is any indication that they may be impaired. If any such indication exists, the recoverable amount of the asset is estimated and any excess thereof is recognised in profit or loss.
Recoverable amount is the higher of an asset’s fair value less costs to sell and its value in use, calculated based on the discounted cash flow model. The discount rate, including taxation, includes the risks specific to the asset for which the future cash flow estimates have not been adjusted.
Assets that do not generate independent cash flows are tested based on the cash-generating unit.
When, subsequently, impairment losses no longer exist, the carrying amount of the asset is restored to the amount that it would have had had the impairment not been recognised. Reversals of impairment losses are recognised in profit or loss. An impairment loss recognised for goodwill is never reversed.

Inventories
Inventories are measured at the lower of cost, calculated using the weighted average cost method, and net realisable value. Financial expense and overheads are not included in inventories. Net realisable value is the estimated sales price in the ordinary course of business considering any costs of completion and the estimated costs necessary to make the sale.

Contract work in progress
Contract work in progress is recognised in accordance with the percentage of completion method whereby contract cost, revenue and contract profits/(losses) are recognised based on the progress of production activities, which is calculated as the costs incurred at the measurement date and total estimated project costs or based on the product units delivered.

The measurement reflects the best estimate of projects completed at the reporting date. The group periodically updates these estimates. Any effects are recognised in the year in which the adjustments are made.
The estimations also include the evaluation of the probability of occurrence of potential liabilities (projects' risks like, for example, delivery delaies); these estimations are considered in preparing projects' budget costs if the underlined risk is considered probable. With reference to claims that could arose during the execution of the project or even and the end, they are considered in evaluating write-downs of work in progress if the underlined risk is considered probable.
The expected loss on a contract is recognised entirely under operating expense when it becomes reasonably foreseeable, along with an accrual to the provision for expected losses to complete contracts.
Contract work in progress is recognised net of any allowances, expected losses and progress payments and advances relating to contracts in progress.
This analysis is performed individually for each contract, recognising the positive difference (work in progress in excess of payments on account) under contract work in progress and the negative difference under "Progress payment and advances from customers". If the amount recognised under advances is not collected at the preparation date of the annual and/or interim financial statements, a balancing entry is recognised under trade receivables.
Contracts with consideration in a currency other than the functional currency (the Euro for the group) are measured by translating the portion of consideration accrued, as per the percentage of completion method, at the closing rate. However, under the group's policy governing currency risk, all contracts whose cash inflows and outflows are significantly exposed to exchange rate fluctuations are adequately hedged, as described in the note on "Hedging construction contracts against currency risk".

Loans and receivables and financial assets
Financial assets are classified as follows:
- financial assets at fair value through profit or loss;
- loans and receivables;
- held-to-maturity investments;
- available-for-sale financial assets.

Financial assets are classified by management upon initial recognition.

(i) Financial assets at fair value through profit or loss
This category includes financial assets acquired for the purpose of trading in the short term, in addition to derivative instruments, in relation to which reference should be made to the paragraph below. The fair value of these instruments is based on the bid price at the reporting date: the fair value of unlisted instruments is determined using generally accepted financial valuation techniques. Fair value gains or losses of the financial instruments included in this category are recognised immediately in profit or loss.
Classification as current or non-current reflects management expectations about trading: they are included under current assets when they are expected to be traded within the next twelve months or when they are recognised as held for trading.

(ii) Loans and receivables
This category includes non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They are initially recognised at fair value, adjusted to reflect any transaction costs, and subsequently measured at amortised cost using the effective interest method. If there is objective evidence of impairment, the carrying amount of the asset is reduced to that of discounted future cash flows. Impairment losses identified by means of impairment tests are recognised in profit or loss. If, in subsequent years, the reasons underlying the previous impairment losses no longer exist, the carrying amount of the asset is restored to the extent of the carrying amount that would have been obtained had the impairment not been recognised. They are included in the current section, except for those which are due after more than twelve months after the reporting date which are therefore included under the non-current section.
The factoring of receivables without recourse based on which all risks and benefits are substantially transferred to the assignee results in the derecognition of the receivables from the balance sheet assets, as the requirements laid out in IAS 39 are met.

(iii) Held-to-maturity investments
These are non-derivative financial assets with fixed maturity that the group has the positive intention and ability to hold to maturity. They are classified under current assets when their contractual maturity is within twelve months. If there is objective evidence of impairment, the carrying amount of the asset is reduced to the discounted future cash flows. Impairment losses identified by means of impairment tests are recognised in profit or loss. If, in subsequent years, the reasons underlying the impairment loss cease to exist, the carrying amount of the asset is restored to the amount that it would have had had the impairment not been recognised.

(iv) Available-for-sale financial assets
These are non-derivative financial assets that are designated as available for sale or are not classified under any of the above categories. They are measured at fair value, which is based on market prices at the annual or interim reporting date, or on financial valuation models and techniques. Fair value gains or losses are taken to an equity reserve (“reserve for available-for-sale financial assets”) which is recognised in profit or loss only when the financial asset is actually sold or, in the case of cumulative losses, when the impairment loss recognised in equity will not be recovered. Classification under current or non-current assets depends on management choices about the asset and its actual trading possibilities.
Assets which are expected to be realised within one year of the reporting date are recognised as current assets.
If there is objective evidence of impairment, the carrying amount of the asset is reduced to the discounted future cash flows. Impairment losses previously recognised under equity reserves are recognised in profit or loss. For non-equity instruments, if the reasons underlying the impairment loss cease to exist, the impairment loss is reversed.

Derivatives
The group uses only derivatives as part of its strategies of hedging the risk of fluctuations in expected cash flows on contractual or highly probable transactions (cash flow hedges) or fluctuations in the fair value of recognised assets or liabilities or due to contractual commitments (fair value hedges), using the so-called forward instruments which, sometimes, despite a substantial and operating hedging effect, do not qualify for hedge accounting under IAS 39. Specifically, fluctuations in the fair value of these instruments and the related underlying items are recognised immediately in profit or loss, under financial items. For information on the policy governing the currency risk on construction contracts, reference should be made to the note on “Hedging construction contracts against currency risk”.

The effectiveness of hedges is documented at the inception of the transaction, as well as periodically at each annual or interim reporting date. Hedge effectiveness is measured by comparing the variations in the fair value of the hedging instrument with those of the hedged item (dollar offset ratio), or, for more complex instruments, using statistical analyses based on risk variations.

(i) Fair value hedges
Changes in the fair value of derivatives designated as fair value hedges and which qualify as such are recognised in profit or loss, as are changes in the fair value of the underlying assets or liabilities attributable to the risk eliminated by the hedging transaction.

(ii) Cash flow hedges
Changes in the fair value of derivatives designated as cash flow hedges and which qualify as such are recognised to the extent of the portion determined to be “effective”, in a specific equity reserve (“hedging reserve”). This is subsequently recognised in profit or loss when the forecast transaction affects profit or losses. The change in the fair value of the ineffective portion is recognised immediately in profit or loss. If the forecast transaction is no longer highly probable, the relevant portion of the “hedging reserve” is recognised immediately in profit or loss. If the hedging instrument is sold or no longer meets the criteria for hedge accounting, the relevant portion of the “hedging reserve” continues to be recognised until the underlying contract takes place.

(iii) Determining the fair value of financial instruments
The fair value of financial instruments quoted on active markets is calculated using the bid price at the reporting date. The fair value of unlisted derivatives is measured using financial valuation techniques: specifically, the fair value of interest rate swaps is calculated discounting the future cash flows, while that of currency forwards is determined on the basis of market rates at the reporting date and the exchange rate spreads between the relevant currencies.

Financial assets and financial liabilities carried at fair value are classified based on the three following hierarchy levels which reflect the significance of the inputs used in measuring fair value. Specifically:
- Level 1 : financial assets and financial liabilities whose fair value is calculated based on quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2: financial assets and financial liabilities whose fair value is calculated based on inputs other than the quoted prices referred to in level 1 that may be observed either directly or indirectly;
- Level 3: financial assets and financial liabilities whose fair value is calculated based on unobservable market data.

Cash and cash equivalents
This caption includes cash on hand, deposits and current accounts with banks or other credit institutions available for current transactions, post office current accounts and other equivalents. They are recognised at fair value.

Equity
(i) Share capital
Share capital is comprised of the parent’s subscribed and paid-in share capital. Any costs closely related to the issue of shares are classified as a decrease in share capital when they are directly related to such operation, net of deferred taxation.

(ii) Treasury shares
They are classified as a decrease in equity. Profits and losses on the sale, issue or cancellation of treasury shares are not recognised in profit or loss.

Payables and other liabilities
They are initially recognised at fair value, less any transaction costs, and subsequently measured at amortised cost, using the effective interest method.

They are classified under current liabilities, unless the group has the contractual right to settle its obligations after at least twelve months of the interim or annual reporting date.

Income taxes
The group’s taxes are comprised of current and deferred taxes. When they relate to income and expense recognised in comprehensive income, they are recognised with a balancing entry in the same caption.
Current taxes are calculated based on the tax legislation applicable and enacted at the reporting date in those countries where the group operates; any risks related to different interpretations of positive and negative income

components, as well as the litigation underway with the tax authorities, are measured at least every three months to adjust the accruals recognised.
Deferred taxes are recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and their tax bases. Deferred tax assets and liabilities are measured at the tax rates that are expected to be enacted when realising assets and settling liabilities, using tax rates enacted or substantively enacted at the reporting date. Deferred tax assets are recognised to the extent that it is probable that sufficient taxable profits will be available in the years the related temporary differences reverse against which the deductible temporary differences can be utilised.

Employee benefits

(i) Post-employment benefits:

Several pension (or supplementary) schemes are in place. They can be analysed as follows:

- Defined contribution plans under which the group pays fixed contributions into a separate entity (e.g. a fund) and has no legal or constructive obligation to pay further contributions if the fund does not hold sufficient assets to pay employees benefits relating to employee service. Contributions payable to a defined contribution plan are recognised only when employees have rendered service in exchange for such contributions;
- Defined benefit plans whereby the group has an obligation to provide the agreed benefits to current and former employees and bears the actuarial and investment risks of the plan. Consequently, the cost of this plan is not calculated based on the contributions of the year, rather, on the basis of demographic and statistical assumptions and salary increase trends, using the projected unit credit method. Accordingly, the carrying amount of the recognised liability reflects that of the relevant actuarial valuation, fully and immediately recognising actuarial gains and losses when they arise with a direct balancing entry in equity in the “actuarial reserve”.

(ii) Other long-term employee benefits and post-employment benefits

Some group company employees are granted benefits such as, for example, jubilee benefits and seniority bonuses which are sometimes paid after retirement (such as medical benefits). The accounting treatment is the same as that applied to defined benefit plans, hence the “projected unit credit method” is used. However, with respect to “other long-term benefits”, any actuarial gains and losses are recognised immediately and entirely in profit or loss when they arise.

(iii) Termination benefits

Termination benefits are recognised as a liability and an expense when the group is demonstrably committed to terminating the employment of an employee or group of employees before their normal retirement date or providing termination benefits as a result of an offer made in order to encourage voluntary redundancy. Termination benefits do not generate future economic benefits for the company and, accordingly, are immediately expensed.

(iv) Stock grant plans

Stock option and stock grant plans are in place for the group’s senior management. The theoretical benefits granted to the beneficiaries are recognised in profit or loss for the years covered by the plan, with a balancing entry in equity. These benefits are calculated by measuring the fair value of the relevant instrument using valuation techniques which include market conditions, if any, and by adjusting the number of options that are expected to be granted at each reporting date.

Provisions for risks and charges

The provisions for risks and charges are recognised against certain or probable losses and expenses for which the group is uncertain of the timing and/or amount at the reporting date.
Provisions for risks and charges are recognised if, at the reporting date, as a result of a past event, the group has a legal or constructive obligation that will lead to an outflow of resources. The amount recognised as a provision is the best estimate of the discounted outlay required to settle the obligation. The discount rate used reflects current market assessments and the additional effects of the risk specific to the liability.
Risks for which liabilities are only possible are disclosed in a specific section of the notes on commitments and risks. They are not provided for.

Recognition of revenue

Revenue is measured at the fair value of the consideration received or due, net of any discounts and volume rebates. Revenue also includes changes in work in progress, with respect to which reference should be made to the note to “Contract work in progress”.

Revenue relating to the sale of goods is recognised when the group has transferred to the buyer the significant risks and rewards of ownership of the goods which generally coincides with transfer of title or possession to the buyer, or when the revenue can be measured reliably.
Revenue from the rendering of services is recognised based on the percentage of completion method, provided that it can be estimated reliably. Revenue from contracts with Italian customers only is recognised under "progress payments and advances from customers" in the statement of financial position and subsequently reversed to profit or loss upon completion of the contract and, hence, of the related work in progress.

Grants
Government grants, including non monetary grants at fair value, are only recognised when there is reasonable assurance that the group will comply with the conditions attaching to them and that the grants will be received. Grants related to income are recognised on an accruals basis and in direct correlation with costs incurred when their allocation has been formally approved. Grants related to assets are recognised in profit or loss directly in line with the depreciation/amortisation of the assets/projects to which they relate and are recognised as a direct reduction in depreciation/amortisation.

Net financial income/(expense)
Interest income and expense are recognised on an accruals basis using the effective interest method, i.e., at the interest rate that makes all cash inflows and outflows (including any premiums, discounts, commissions, etc.) comprising the transaction financially equivalent.
Borrowing costs that are directly attributable to the acquisition, construction or production of an asset that necessarily takes a substantial period of time to get ready for its intended use or sale (qualifying assets) are capitalised as part of the cost of that asset.

Dividends
Dividends are recognised when the right to receive payment is established. This usually coincides with the shareholders' resolution approving their distribution.
Dividends paid to the shareholders of Ansaldo STS S.p.A. are considered as a change in equity and recognised as a liability in the year in which the distribution was approved by the company's shareholders.

Related party transactions
All related party transactions take place on an arm's length basis.

Costs
Costs are recognised based on the criteria of proper qualification, temporal allocation and classification established by the accounting standards adopted by the enterprise.
Costs are recognised when they relate to goods and services, excluding contract work in progress, sold or consumed during the year or based on a systematic allotment, or when their future useful life cannot be identified.
Personnel expense includes the amount of remuneration paid, accruals to the provisions for pension funds and for unused holidays accrued and social security and pension contributions in application of contracts and legislation in force.
Costs for the acquisition of new knowledge or discoveries, the study of alternative products or processes and new techniques or models, the design and construction of prototypes or, in any event, incurred for other scientific research or technological development activities, are generally considered current costs and recognised in the income statement in the year in which they are incurred; these costs are recognised in the balance sheet assets ("Intangible assets") only when the conditions described in IAS 38 are met.

New reporting standards (IFRS) and interpretations (IFRIC)

At the preparation date of these separate financial statements, the EU has endorsed several standards and interpretations which are not yet mandatory and which the company will apply in the next few years. The main changes (excluding the annual improvements) and potential impacts on the company are as follows:

IFRS - IFRIC		Nature and impacts on the group
IAS 7	Statement of cash flows	The amendments to IAS 7 Statement of cash flows are part of the IASB disclosure initiative and require an entity to provide supplemental information that enables users of financial statements to evaluate changes in liabilities linked with financing activities. Application of these amendments are not expected to have any significant effect on the Group's financial statements. The amendments clarify that an entity needs to consider whether tax law restricts the sources of taxable profits against which it may make deductions on the reversal of that deductible temporary difference. Furthermore, the amendments provide guidance on how an entity should determine future taxable profits and explain the circumstances in which taxable profit may include the recovery of some assets for more than their carrying amount. Application of these amendments are not expected to have any significant effect on the company's financial statements. The Group will apply these amendments starting from 1 January 2017.
Amendment to IAS 12	Income taxes	The amendments aim to clarify how to account for deferred tax assets relating to debt instruments measured at fair value. Application of these amendments are not expected to have any significant effect on the Group's financial statements. The Group will apply these amendments starting from 1 January 2017.
IFRS 2	Share-based Payment	The amendments aim to clarify the recognition of certain types of transactions with share-based payment. The impact on the group of adopting this standard is currently being analysed. The Group will apply this standard starting from 1 January 2018.
IFRS 9	Financial instruments	This standard significantly amends the accounting treatment of financial instruments and will eventually replace IAS 39. At present, the IASB has amended the requirements for classifying and measuring financial assets currently set out in IAS 39. Moreover, the IASB has published a document on measuring financial instruments at amortised cost and assessing any impairment indicators. However, the competent bodies are still discussing the new general approach to financial instruments and, at present, it is not yet known when the adoption date will be. The impact on the group of adopting this standard is currently being analysed. The current version of IFRS 9 will be applicable as of 1 January 2018, subject to the EU's endorsement.
IFRS 15	Revenue from contracts with customers	This standard redefines how to recognise revenue, which must be recognised when control of goods or services is transferred to customers, and requires that additional disclosure be provided. The impact on the Group of adopting such standard is currently being analysed. The Group will apply this standard starting from 1 January 2018.
IFRS 16	Leases	The standard published in January 2016 to replace IAS 17 Leases, IFRIC 4, SIC-15 and SIC-27 defines the principles for the recognition, measurement, presentation and disclosure of leases and requires lessees to account for all leases in the financial statements based on a single model similar to that used to account for financial leases in accordance with IAS 17. The Group will apply this standard starting from 1 January 2019.

As regards the adoption of IFRS 15 and IFRS 16, analysis activities are under way which will make it possible to evaluate in 2017 any effects deriving from the application of those standards.

Insights into IFR15

As mentioned elsewhere in the Notes to the Financial Statements, the IASB issued IFRS 15 Revenue recognition, a comprehensive new revenue recognition standard that will supersede nearly all existing revenue recognition guidance under IFRS, for Ansaldo STS, in particular, the new standard will supersede IAS 11 Construction Contracts and IAS 18 Revenue.

The new standard applies to revenue from contracts with customers: its core principle is that a company will recognize revenue when it transfers goods or services to customers at an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. In doing so, management will need to use more judgement and make more estimates than under today's guidance.

Application of the new standard is required for annual periods beginning on or after 1 January 2018; Ansaldo STS will not early adopt the new standard, even if permitted under IFRS. The new standard is required to be applied retrospectively and the transition will follow either a full retrospective approach or a modified retrospective approach. The modified approach allows the standard to be applied to existing contracts beginning with the current period. Ansaldo STS does not decided yet which option adopt for the retrospective approach.
IFRS 15 establishes a five-step model that will apply to revenue earned from contracts with a customers (with limited exceptions), regardless of the type of revenue transaction.
Regarding revenue streams, they basically fall into two main categories: (i) designing, building, operating and maintaining Railway and Mass Transit solutions that range from fully integrated turnkey solutions to traditional signalling systems for passenger rail systems; (ii) designing and production of a full range of signalling solutions and components and provides operation and maintenance services for Heavy Haul and Freight customers around the world.
Implementation plan of IFRS 15 will require Ansaldo STS to review its contracts following the five steps approach of the new standard in order to identify potential effects on net equity and income statements. Based on the preliminary overview performed, the main focus area of analysis and of potential impact have been identified in the following:

(i) accounting for contract modification (in particular, change order);
(ii) transactions among partners (contracts with customers of Ansaldo STS frequently involved other partners in managing relationships and transactions with the final customers: based on contracts' clauses, in accordance with IFRS 15, transactions with partners could not represent revenue for the Company);
(iii) costs to obtain contracts (incremental costs sustained to obtain contracts must be capitalized if recoverable through the sale);
(iv) performance obligation in the contracts (the new standards requires to identify "multiple elements" within the contract which could be subject to separate evaluation and accounting with potential impact on revenue and margins from contracts);
(v) warranties (based on the characteristics of the warranties required and allowed, they could be considered separate performance obligation to be spin off from the main contract);
(vi) transfer of control (critical analysis of contract terms for the purposes of identification of the model that better reflects the principles of the standard based on the transfer of control of goods and services).

The timeline of IFRS 15 implementation has been design to complete the analysis of the most significant existing contracts, in terms of size of revenue, within June 2017, in order to be able to provide preliminary conclusions in the consolidated half year report as of and for the six months period ended on June 30, 2017. A second a final step of the plan is actually expected within the end of 2017, in order to provide quantitative disclosure of the new standard in the year end consolidated financial statements as of December 31, 2017.

Significant accounting policies
The application of generally accepted accounting principles for the preparation of the financial statements and the interim accounting reports requires the company management to make accounting estimates based on complex and/or subjective opinions, estimates based on past experience and assumptions deemed reasonable and realistic on the basis of the information known at the moment of the estimate.
The use of these accounting estimates impacts the value at which assets and liabilities are recognised and the disclosure on contingent assets and liabilities at the reporting date, as well as the amount of revenue and costs in the reference year. The actual results may differ from those estimated due to the uncertainty characterising the assumptions and conditions on which the estimates are based.

The most significant accounting policies which require that directors prepare estimates based on a greater degree of subjectivity and for which a change in one of the underlying conditions would have a significant impact on the consolidated financial statements are described below.

- Costs estimation to complete construction contracts: the group operates in a business and with contractual arrangements which are recognised using the percentage of completion method. Profits recognised in profit or loss reflect contract progress and the profits which will be recognised for the entire contract once it is completed. Consequently, for the purposes of correctly recognising work in progress and profits related to works yet to be completed, management is required to make an accurate estimate of expected losses, expected increases and delays, additional costs and penalties which could have an impact on the expected margin. More specifically,

the expected loss estimate procedure requires estimates of the cost of materials, the number of hours required to carry out the works set forth in the contract, the financial expense incurred to cover guarantees issued by financial institutions and the possible outcome of disputes with contractual counterparties, partners and suppliers. In order to better assist management's estimates, the group has adopted contract risk management and analysis procedures which identify, monitor and quantify the risks related to contract performance. Carrying amounts reflect management's best estimate at that time, assisted by the above procedural tools.
The valuation of work in progress consider the estimations of the possible impacts arising from disputes with customers; in cases where there are disputes for risk of probable future liabilities, management sets aside special bad debt provision of the work in progress.

- Bad debt provision for receivables: The Group has a credit analysis procedures aimed to identify, monitor and quantify the risks reflected in the provision for doubtful receivables, which therefore represents the best estimate at the time of preparation of the consolidated financial statements.

- Impairment losses: the group's assets with an indefinite useful life are tested for impairment at least once each year or more often if there is evidence of impairment. Likewise, all assets showing evidence of impairment are tested, also when depreciation/amortisation has already begun. Impairment tests are usually performed using the discounted cash flow method; however, this method is considered highly sensitive to the assumptions included in the estimate of future cash flows and of the interest rates applied.

  For the purposes of these valuations, the group uses the plans approved by the body and financial parameters which are in line with those reflecting the current trend of reference markets. Expected cash flows may be quantified in light of the information available at the moment of the estimate on the basis of subjective judgements regarding the future performance of variables such as prices, costs, demand growth rates and production profiles, and are discounted using a rate that takes into account the risk inherent in the activity concerned.

- Hedging construction contracts against currency risk: to avoid the risk of fluctuations in foreign currency cash inflows and outflows on construction contracts, the group specifically hedges the individual cash flows expected on the contract. Hedges are agreed when commercial contracts are signed. Currency risk is usually hedged using plain vanilla (forward) instruments.
  If the hedge is not deemed effective, fair value gains or losses on these instruments are immediately expensed as financial items and the related underlying item is measured as if it were not hedged, hence it is exposed to the currency risk. The effects of this accounting treatment are described in the note on "financial income and expense". Hedges which fall under the first case are recognised as cash flow hedges, considering the premium or the discount as the ineffective part in the case of forwards, or time value in the case of options. The ineffective part is recognised under financial items.

- *Income taxes.* Current taxes for the year are calculated on the basis of estimated taxable income and the tax rates in force at the reporting date. As described above, deferred tax assets are recognised if their recovery is deemed probable; this probability depends on the effective existence of taxable income in the future, which can be used to offset the deductible temporary differences, the determination of which requires conducting a significant estimation process. In determining future taxable income, the results set forth in budgets and plans consistent with those used for impairment testing were taken into consideration, also considering the fact that deferred tax assets refer to temporary differences/tax losses that may be recovered over a long period of time, therefore theoretically even beyond the implicit time horizon of the plans noted above.

Effects of amendments to the IFRS
The company has adopted certain accounting standards and amendments for the first time which are in force for financial years starting on 1 January 2016.
The nature and impact of each new accounting standard and amendment are described below:

- The amendments to IAS 1 clarify, rather than significantly change, existing IAS 1 requirements. The amendments clarify:
  - The materiality requirements in IAS 1;
  - That specific line items in the statement(s) of profit or loss and OCI and the statement of financial position may be disaggregated;
  - That entities have flexibility as to the order in which they present the notes to financial statements;
  - That the share of OCI of associates and joint ventures accounted for using the equity method must be presented in aggregate as a single line item, and classified between those items that will or will not be subsequently reclassified to profit or loss.

Furthermore, the amendments clarify the requirements that apply when additional subtotals are presented in the statement of financial position and the statement(s) of profit or loss and OCI.
These amendments do not have any impact on the Group.

- The amendment to IAS 19, which introduced a simplification of the accounting treatment of certain types of contributions to defined benefit plans by employees or third parties. This has not impacted the company's financial position and results of operations;
- The amendment to IAS 16 and 38 clarifies that it is inappropriate to use revenue-based methods to calculate the depreciation of an asset as revenues reflect a model of economic benefits which are generated by the running of a business, rather than the economic benefits that are consumed with the use of the asset.

Although these new standards and amendments were applied for the first time in 2016, they have not had material impacts on the financial statements or the notes.

13 Segment reporting

Reference should be made to paragraph 2.6 of the directors' report for information on the indicators that management uses to assess the group's performance.
In compliance with the aggregation criteria laid out in IFRS 8, the ASTS group has identified one single operating segment. Therefore, the information required by IFRS 8 correspond to those presented in the consolidated income statement in line with previous years.
Some consolidated accounting information is provided below on a geographical basis, which represents the main way in which the management monitors business performance.

Revenue (€'000)	**31.12.2016**	31.12.2015
Italy	308,403	321,918
Rest of Europe	390,653	338,856
North Africa and the Middle East	122,057	104,593
Americas	255,194	246,713
Asia/Pacific	251,079	371,757
Total	**1,327,386**	**1,383,837**

Property, plant and equipment and intangible assets (€'000)	**31.12.2016**	31.12.2015
Italy	105,961	110,055
Rest of Europe	13,745	14,340
North Africa and the Middle East	778	184
Americas	12,010	12,354
Asia/Pacific	1,966	1,625
Total	**134,460**	**138,558**

14 Notes to the statement of financial position

14.1 Related party assets and liabilities

Related party trading transactions generally take place on an arm's length basis, as does the settlement of interest-bearing receivables and payables where not governed by specific contractual conditions. The relevant statement of financial position balances are shown below. The statement of cash flows presents the impact of related party transaction on cash flows.

FINANCIAL ASSETS AT 31 DECEMBER 2016 (€'000)	Non-current loan assets	Other non-current financial assets	Current loan assets	Trade receivables	Other current financial assets	Total
Ultimate parent						
Hitachi Ltd (Rail)	-	-	-	155	-	**155**
Hitachi Rail Europe Ltd	-	-	-	313	-	**313**
Subsidiaries						
Alifana S.c.r.l.	-	-	-	93	-	**93**
Alifana Due S.c.r.l.	-	-	-	238	-	**238**
Associates						
International Metro Service S.r.l.	-	-	-	-	-	**-**
I.M. Intermetro S.p.A. (in liq.)	-	-	-	387	-	**387**
Metro 5 S.p.A.	-	22,534	-	1,391	-	**23,925**
Metro Service A.S.	-	-	-	1,668	-	**1,668**
SPV Linea M4 S.p.A.	-	2,534	-	-	-	**2,534**
SP M4 S.C.p.A. (in liq.)	-	-	267	-	-	**267**
Metro Brescia S.r.l.	-	-	-	629	-	**629**
JOINT VENTURES						
Balfour Beatty Ansaldo Systems JV SDN BHD	-	-	-	2,246	-	**2,246**
Consortia						
Saturno Consortium	-	-	-	29,529	-	**29,529**
Ascosa Quattro consortium	-	-	-	1,157	-	**1,157**
Ferroviario Vesuviano consortium	-	-	-	1,462	-	**1,462**
MM4 consortium	-	182	-	11,858	-	**12,040**
San Giorgio Volla Due consortium	-	-	-	3,489	4	**3,493**
San Giorgio Volla consortium	-	-	-	1,421	-	**1,421**
EPC Lima consortium	-	272	-	-	-	**272**
Other group companies						
Hitachi High Technologies Europe GMBH	-	-	-	68	-	**68**
Hitachi Rail Italy S.p.A.	-	-	-	6,272	-	**6,272**
Total	**-**	**25,522**	**267**	**62,376**	**4**	**88,169**
% of the total corresponding financial statements caption		**56%**	**1%**	**9%**	**0.004%**	

FINANCIAL ASSETS AT 31 DECEMBER 2015 (€'000)	Non-current loan assets	Other non-current financial assets	Current loan assets	Trade receivables	Other current financial assets	Total
Ultimate parent						
Hitachi Rail Europe Ltd	-	-	-	301	-	**301**
Subsidiaries						
Alifana S.c.r.l.	-	-	-	128	-	**128**
Alifana Due S.c.r.l.	-	-	-	360	-	**360**
Associates						
International Metro Service S.r.l.	-	-	-	121	-	**121**
I.M. Intermetro S.p.A. (in liq.)	-	-	-	389	-	**389**
Metro 5 S.p.A.	-	20,733	-	1,733	-	**22,466**
Metro Service A.S.	-	-	-	512	-	**512**
SP M4 S.C.p.A. (in liq.)	-	-	563	-	-	**563**
Metro Brescia S.r.l.	-	-	-	1,070	-	**1,070**
JOINT VENTURES						
Balfour Beatty Ansaldo Systems JV SDN BHD	-	-	-	2,860	-	**2,860**
Consortia						
Saturno Consortium	-	-	-	23,535	-	**23,535**
Ascosa Quattro consortium	-	-	-	1,157	-	**1,157**
Ferroviario Vesuviano consortium	-	-	-	1,168	-	**1,168**
MM4 consortium	-	182	-	13,142	-	**13,324**
San Giorgio Volla Due consortium	-	-	-	1,138	4	**1,142**
San Giorgio Volla consortium	-	-	-	1,421	-	**1,421**
EPC Lima consortium	-	296	-	-	-	**296**
Other group companies						
Hitachi Rail Italy S.p.A.		-	-	9,917	-	**9,917**
Total	**-**	**21,211**	**563**	**58,952**	**4**	**80,730**
% of the total corresponding financial statements caption	-	**51%**	**1%**	**9%**	**0.004%**	

FINANCIAL LIABILITIES AT 31 DECEMBER 2016 (€'000)	**Non-current loans and borrowings**	**Other non-current financial liabilities**	**Current loans and borrowings**	**Trade payables**	**Other current financial liabilities**	**Total**
Subsidiaries						
Alifana S.c.r.l.	-	-	-	125	3	**128**
Alifana Due S.c.r.l.	-	-	-	109	-	**109**
Associates						
Metro Service A.S.	-	-	-	2,704	-	**2,704**
MetroB S.r.l.	-	-	-	-	370	**370**
Pegaso S.c.a.r.l. (in liq.)	-	-	-	61	-	**61**
Consortia						
Saturno Consortium	-	-	-	2,066	-	**2,066**
Ascosa Quattro consortium	-	-	-	150	8	**158**
San Giorgio Volla Due consortium	-	-	-	206	-	**206**
Ferroviario Vesuviano consortium	-	-	-	85	21	**106**
San Giorgio Volla consortium	-	-	-	5	8	**13**
MM4 consortium	-	-	-	591	-	**591**
Other group companies						
Hitachi Rail Italy S.p.A.	-	-	-	13,569	-	**13,569**
Total	**-**	**-**	**-**	**19,671**	**410**	**20,081**
% of the total corresponding financial statements caption				**4%**	**0.3%**	

FINANCIAL LIABILITIES AT 31 DECEMBER 2015 (€'000)	Non-current loans and borrowings	Other non-current financial liabilities	Current loans and borrowings	Trade payables	Other current financial liabilities	Total
Subsidiaries						
Alifana S.c.r.l.	-	-	-	313	-	**313**
Alifana Due S.c.r.l.	-	-	-	93	3	**96**
Associates						
Metro Service A.S.	-	-	-	4,821	-	**4,821**
Metro Brescia S.r.l.	-	-	-	142	-	**142**
Metro 5 S.p.A.	-	-	-	1	-	**1**
MetroB S.r.l.	-	-	-	-	370	**370**
I.M. Intermetro S.p.A. (in liq.)	-	-	-	2	-	**2**
JOINT VENTURES						
Balfour Beatty Ansaldo Syst. JV SDN BHD	-	-	-	9	-	**9**
Consortia						
Saturno Consortium	-	-	-	2,232	5	**2,237**
Ascosa Quattro consortium	-	-	-	157	8	**165**
San Giorgio Volla Due consortium	-	-	-	182	-	**182**
Ferroviario Vesuviano consortium	-	-	-	145	8	**153**
San Giorgio Volla consortium	-	-	-	5	8	**13**
MM4 consortium	-	-	-	592	-	**592**
SP M4 S.C.p.A. (in liq.)	-	-	-	554	-	**554**
Cris consortium	-	-	-	1	-	**1**
Other group companies						
Hitachi Rail Italy S.p.A.	-	-	2,500	15,998	-	**18,498**
Total	**-**	**-**	**2,500**	**25,247**	**402**	**28,149**
% of the total corresponding financial statements caption			**61%**	**6%**	**0.4%**	

14.2 Intangible assets

(€'000)	Goodwill	Other development expense	Patents and similar rights	Concessions, licences and trademarks	Assets under development	Other	Total
At 31 December 2015	**34,569**	**4,436**	**9,523**	**457**	**423**	**2,138**	**51,546**
Acquisitions	-	-	893	398	225	399	1,915
Capitalisations	-	4,126	-	-	156	-	4,282
Amortisation, depreciation and impairment losses	-	(2,043)	(4,046)	(311)	-	(953)	(7,353)
Opening/average net exchange rate gains	-	-	-	1	-	12	13
Transferred from work-in-progress	-	-	-	-	(223)	223	-
Reclassifications	-	(1,141)	-	-	(173)	173	(1,141)
At 31 December 2016	**34,569**	**5,378**	**6,370**	**545**	**408**	**1,992**	**49,262**

Intangible assets amount to €49,262 thousand (31 December 2015: €51,546 thousand), while investments of the year are equal to €6,197 thousand and amortisation and impairment losses to €7,353 thousand.
Specifically:

- Goodwill (€34,569 thousand), which is tested for impairment at year end in accordance with group procedures, was tested at the reporting date with no need for impairment.
  The test compared net invested capital (including goodwill) at 31 December 2016 against the higher of value in use and fair value. Specifically, value in use is calculated based on the discounted cash flow model, applying the unlevered version to the cash flows as per the guidelines to the five-year plans approved by board of directors (2017 – 2021) and the present value of the terminal value (calculated on a going concern basis). The growth rate included in the terminal value was equal to 2% calculated considering the inflation outlook in the Country where the Group works (International Monetary Fund outlook).
  Where available, the related macro-economic assumptions are determined using external sources of information, while the profitability and growth estimates assumed in the business plans are defined by management based on past experience and expectations about the developments of the markets in which the group operates.
  The cash flows used are those generated by group assets, in their present condition, before financial expense and taxes. They include capital expenditure and monetary changes in working capital and exclude cash flows from financing activities, non-recurring events or dividend distributions.
  These cash flows are discounted using the WACC (Weighted Average Cost of Capital) method which is calculated based on the Capital Asset Pricing Model. At 31 December 2016 the WACC for the Group is 7.39% compared to 7.45% used in previous year.
  The comparables panel in 2016 is the same of the previous year.
  The performed test has pointed out a level of coverage; in addition, there is no other external indicators showing evidence of impairment.
  The recoverable amount is calculated using the Discounted Cash Flow (DCF) methodology – Average Ros has been higher to fair value calculated using the fair value (multiple) methodology.
  The Company performed a sensitivity analysis considering a WACC about 0.5%, 1.0% and 1.5% and, at the same time, to shorten the terminal value growth rate about 0.5% and 1.0%. The analysis shows a broad coverage about the recoverability of the assets under impairment test.
  The recoverable amount obtained through fair value was calculated based on the EV/EBITDA market multiples methods, with respect to current stock exchange multiples of a panel of peer companies used also for the WACC calculation.
  The basic assumptions underlying the projected cash flows for the five-year plans approved by Board of Directors are described in detail in the directors' report to which reference should be made.

- Development expense includes:
  - the Stream project, which was fully amortised in previous years;
  - the Satellite and Rail Telecom project to develop satellite technologies for new railway signalling systems. This project is co-financed by the European Space Agency and the Galileo Supervisory Authority.
- Patents and similar rights relate to:
  - the CMMI (Capability Maturity Model Integration) project to improve the software development process;
  - software developed to support the New Controlling Model (NCM) and the Product Data Management (PDM) which were launched as part of a major worldwide reorganisation process (Fast Forward Driven by Business);
  - development of several tools; in more detail, during the year investments related primarily to the "*Nuovo Internet Global Company*" (€479 thousand), "*Workload Management System (WMS)*" (€58 thousand),"*Tool IET Enterprise for Facility MGT*" (€35 thousand) and"*New Hyperion Application*" (€100 thousand) projects.

14.3 Property, plant and equipment

(€'000)	Land and buildings	Plant and machinery	Equipment	Assets under construction	Other	Total
At 31 December 2015	**60,756**	**7,520**	**6,334**	**2,423**	**9,979**	**87,012**
Acquisitions	100	452	969	1,669	3,466	6,656
Capitalisations	-	-	574	275	-	849
Sales	(7)	(11)	(22)	(45)	(19)	(104)
Amortisation, depreciation and impairment losses	(2,317)	(2,196)	(1,990)	-	(3,094)	(9,597)
Opening/average net exchange rate gains	124	71	8	54	125	382
Transfer from assets under construction	-	11	645	(656)	-	-
Reclassifications	75	661	115	(1,346)	495	-
At 31 December 2016	**58,731**	**6,508**	**6,633**	**2,374**	**10,952**	**85,198**

Property, plant and equipment amount to €85,198 thousand (31 December 2015: €87,012 thousand). They are mainly comprised of the properties of the parent Ansaldo STS S.p.A., specifically the residual value of the building located in Genoa, Via Mantovani 3/5.
Investments of the year, equal to the sum of acquisitions and capitalisations, amount to €7,505 thousand and mainly relate to the following:

- Ansaldo STS S.p.A. for restructuring works and equipment purchased for the Tito plant and the Piossasco facilities for €3,765 thousand;
- Ansaldo STS France group for the purchase of technical laboratory equipment and production tools for the Riom and Les Ulis facilities for €1,498 thousand;
- Ansaldo STS USA INC. for maintenance at the Batesburg plant and works at the Pittsburgh office and IT equipment for €1,636 thousand.

Depreciation and impairment losses of the year amount to €9,597 thousand, while net exchange rate gains total €382 thousand, mainly opening balances.
In general, the property, plant and equipment of the ASTS group is not subject to encumbrances or restrictions of any nature. The only exception regards the restriction established by the municipality of Piossasco for the use of the company canteen by third parties.

14.4 Equity investments

Investments in non-consolidated companies recognised at cost:

(€'000)

At 31 December 2015	**45,403**
Acquisitions/subscriptions and capital increases	2,114
Sales/returns	(6)
At 31 December 2016	**47,511**
Equity-accounted investments	**25,536**
Total equity investments	**73,047**

List of equity investments in thousands of euros:

Name	Registered office	Type of activity	Reporting date	Accounting standards	Equity (€'000)	Total assets (€'000)	Total liabilities (€'000)	Currency	investment %	% of voting rights (%)	Holding type > 50% of voting rights without control	Holding type < 50% of voting rights with control	Holding type > 20% of voting rights without significant influence	Holding type < 20% of voting rights with significant influence	Amount (€'000)
Metro 5 S.p.A.	Milan (Italy)	Transportation	31.12.2015	IT GAAP	56,694	732,034	675,340	Euro	24.60%	24.60%	N/A	N/A	N/A	N/A	16,903
International Metro Service S.r.l.	Milan (Italy)	Transportation	31.12.2015	IT GAAP	8,044	8,337	293	Euro	49.00%	49.00%	N/A	N/A	N/A	N/A	2,374
Pegaso S.c.r.l. (in liq.)	Rome (Italy)	Construction	31.12.2015	IT GAAP	260	4,551	4,291	Euro	46.87%	46.87%	N/A	N/A	N/A	N/A	122
Alifana S.c.a.r.l.	Naples (Italy)	Transportation	31.12.2016	IT GAAP	26	814	788	Euro	65.85%	65.85%	N/A	N/A	N/A	N/A	17
Alifana Due S.c.r.l.	Naples (Italy)	Transportation	31.12.2016	IT GAAP	26	1,466	1,440	Euro	53.34%	53.34%	N/A	N/A	N/A	N/A	14
Metro Brescia S.r.l.	Brescia (Italy)	Transportation	31.12.2015	IT GAAP	5,379	61,014	55,635	Euro	19.80%	19.80%	N/A	N/A	N/A	✓	1,065
Balfour Beatty Ansaldo Systems JV SDN BHD	Kuala Lumpur (Malaysia)	Transportation	31.12.2016	IFRS	12,604	37,020	24,416	MYR	40.00%	40.00%	N/A	N/A	N/A	N/A	5,041
Total equity-accounted investments															**25,536**
Metro C S.c.p.A.	Rome (Italy)	Transportation	31.12.2015	IT GAAP	149,518	404,634	255,116	Euro	14.00%	14.00%	N/A	N/A	N/A	✓	21,000
I.M. Intermetro S.p.A. (in liq.)	Rome (Italy)	Transportation	31.12.2015	IT GAAP	1,877	5,320	3,443	Euro	21.26%	16.67%	N/A	N/A	N/A	✓	523
Società Tram di Firenze S.p.A.	Florence (Italy)	Transportation	31.12.2015	IT GAAP	12,484	228,596	216,112	Euro	3.80%	3.80%	N/A	N/A	N/A	N/A	266
Iricav Uno consortium	Rome (Italy)	Transportation	31.12.2015	IT GAAP	520	7,850	7,330	Euro	17.44%	17.44%	N/A	N/A	N/A	✓	91
Iricav Due consortium	Rome (Italy)	Transportation	31.12.2015	IT GAAP	516	85,833	85,317	Euro	17.05%	17.05%	N/A	N/A	N/A	✓	88
Ferroviario Vesuviano consortium	Naples (Italy)	Transportation	31.12.2015	IT GAAP	155	217,788	217,633	Euro	33.34%	33.34%	N/A	N/A	N/A	N/A	51
S. Giorgio Volla consortium	Naples (Italy)	Transportation	31.12.2015	IT GAAP	72	6,155	6,083	Euro	25.46%	25.00%	N/A	N/A	N/A	N/A	18
S. Giorgio Volla 2 consortium	Naples (Italy)	Transportation	31.12.2015	IT GAAP	72	59,001	58,929	Euro	25.46%	25.00%	N/A	N/A	✓	N/A	18
Cris consortium	Naples (Italy)	Research	31.12.2015	IT GAAP	2,445	4,583	2,138	Euro	1.00%	1.00%	N/A	N/A	N/A	N/A	24
Ascosa Quattro consortium	Rome (Italy)	Transportation	31.12.2014	IT GAAP	57	78,574	78,517	Euro	24.92%	25.00%	N/A	N/A	✓	N/A	14
Siit S.c.p.a	Genoa (Italy)	Research	31.12.2015	IT GAAP	614	1,991	1,377	Euro	2.33%	2.30%	N/A	N/A	N/A	N/A	14
Saturno Consortium	Rome (Italy)	Transportation	31.12.2015	IT GAAP	31	1,676,378	1,676,347	Euro	33.34%	33.34%	N/A	✓	N/A	N/A	10
Train consortium	Rome (Italy)	Transportation	31.12.2015	IT GAAP	1,180	33,664	32,484	Euro	4.55%	4.55%	N/A	N/A	N/A	✓	6
Sesamo S.c.a.r.l.	Naples (Italy)	Transportation	31.12.2015	IT GAAP	91	854	763	Euro	2.00%	2.00%	N/A	N/A	N/A	N/A	2
ISICT consortium	Genoa (Italy)	Research	31.12.2015	IT GAAP	51	241	190	Euro	14.29%	14.29%	N/A	N/A	N/A	✓	6
Cosila consortium (in liq.)	Naples (Italy)	Research	31.12.2015	IT GAAP	100	100	0	Euro	1.00%	0.92%	N/A	N/A	N/A	N/A	1
MM4 consortium	Milan (Italy)	Transportation	31.12.2015	IT GAAP	200	17,191	16,991	Euro	17.68%	18.20%	N/A	N/A	N/A	✓	36
Radiolabs consortium	Rome (Italy)	Research	31.12.2015	IT GAAP	233	1,608	1,375	Euro	25.00%	25.00%	N/A	N/A	✓	N/A	52
SPV Linea M4 S.p.A.	Milan (Italy)	Transportation	31.12.2015	IT GAAP	102,897	213,332	110,435	Euro	5.55%	5.55%	N/A	N/A	N/A	N/A	7,740
Metro de Lima Linea 2 S.A.	Lima (Peru)	Transportation	31.12.2015	IFRS	118,064	198,713	80,649	USD	12.24%	16.90%	N/A	N/A	N/A	✓	16,639
TOP IN S.c.a.r.l.	Naples (Italy)	Transportation	31.12.2015	IT GAAP	79	118	39	Euro	5.29%	5.29%	N/A	N/A	N/A	N/A	4
Ansaldo STS do Brasil Sistemas de Transporte Ferroviario e Metropolitano LTDA	Fortaleza (Brazil)	Transportation	31.12.2015	BRAZILGAAP	213	215	2	BRL	99.99%	99.99%	N/A	N/A	N/A	N/A	334
D.I.T.S. Development & Innovation in Transportation Systems S.r.l.	Rome (Italy)	Research	31.12.2015	IT GAAP	69	112	43	Euro	12.00%	12.00%	N/A	N/A	N/A	✓	5
Dattilo S.c.a.r.l.	Naples (Italy)	Transportation	31.12.2015	IT GAAP	99	360	261	Euro	14.00%	14.00%	N/A	N/A	N/A	✓	14
S.P. M4 S.c.p.a. (in liq.)	Milan (Italy)	Transportation	31.12.2015	IT GAAP	360	4,126	3,766	Euro	16.90%	16.90%	N/A	N/A	N/A	✓	61
MetroB S.r.l.	Rome (Italy)	Transportation	31.12.2015	IT GAAP	17,693	17,772	79	Euro	2.47%	2.47%	N/A	N/A	N/A	✓	494
Total equity investments recognised at cost															**47,511**
Total equity investments															**73,047**

Equity investments at year end amounted to €73,047 thousand (31 December 2015: €69,041 thousand), of which €25,536 thousand (31 December 2015: €23,638 thousand) was measured using the equity method and €47,511 thousand (31 December 2015: €45,403 thousand) at cost.

The €2,108 thousand increase on 2015, which relates to equity investments measured at cost, is mainly due to the subscription of a further equity investment in SPV Linea M4 S.p.A. (€2,100 thousand) which will construct Line M4 of the Milan metro under concession and the increase of €13 thousand in the Ferroviario Vesuviano consortium following the exit of one of the shareholders.

The change of €1,898 thousand compared to 2015, relating to equity-accounted investments, was due primarily to the results recorded by the same investees (€4,345 thousand), details of which are provided in note 15.10, partially offset by the distribution of a dividend of €1,568 thousand by International Metro Service S.r.l. Lastly, the process of winding up the subsidiary Kazakhstan TZ Ansaldo STS Italy LLP was concluded in late November (€32 thousand).

14.5 Loans and receivables and other non-current assets

(€'000)	**31.12.2016**	31.12.2015
Guarantee deposits	3,163	2,267
Other	16,800	18,355
Other non-current related party loans and receivables	25,522	21,210
Non-current financial assets	**45,485**	**41,832**
Other prepayments	16,090	18,332
Other non-current assets	**16,090**	**18,332**

Non-current financial assets at 31 December 2016 amount to €45,485 thousand, up by €3,653 thousand on 2015 (€41,832 thousand), while non-current assets amount to €16,090 thousand (31 December 2015: €18,332 thousand).
They may be analysed as follows:

- guarantee deposits, mainly for advances to lessors (€3,163 thousand);
- for the item other, primarily the "*Pittsburgh facilities lease*" of the US subsidiary (€12,883 thousand) relating to USA subsidiaries for the operating leasing of the offices;
- other non-current related party loans and receivables:
  - €22,534 thousand related to the shareholder loan (principal of €18,783 thousand and accrued interest of €3,751 thousand) of Metro 5 S.p.A. following the agreements to construct the related section of the Milan metro;
  - €2,534 thousand related to the shareholder loan (principal of €2,401 thousand and accrued interest of €133 thousand) of SPV Linea M4 S.p.A. following the agreements to construct the related section of the Milan metro;
  - €272 thousand due from the EPC Lima consortium;
  - €182 thousand due from the MM4 consortium.
- other prepayments relate to the non-current portion of deferred costs for the licence to use the "Ansaldo" trademark owned by Finmeccanica S.p.A. for a 20-year period (€12,868 thousand).
  With reference to the trademark, Ansaldo STS S.p.A. agreed a contract with Finmeccanica S.p.A. on 27 December 2005 allowing the group to use the "Ansaldo" trademark on the market. Against the advance payment of royalties of €32,213 thousand, this contract gives the group the exclusive right to use this trademark until 27 December 2025.

14.6 Inventories

(€'000)	**31.12.2016**	31.12.2015
Raw materials, consumables and supplies	24,782	19,383
Work-in-progress and semi-finished products	12,668	12,314
Finished goods	9,790	10,854
Advances to suppliers	77,827	78,666
Total	**125,067**	**121,217**

Inventories amount to €125,067 thousand, up by €3,850 thousand on the balance at 31 December 2015 (€121,217 thousand) relating primarily to a higher value of raw materials. Inventories are shown net of the relevant allowance of €3,269 thousand (31 December 2015: €3,960 thousand).

14.7 Work in progress and progress payments and advances from customers

(€'000)	**31.12.2016**	31.12.2015
Advances from customers	(41,789)	(65,594)
Progress payments	(1,886,966)	(1,842,741)
Work-in-progress	2,328,511	2,298,527
Provision for expected losses to complete contracts	(12,803)	(14,947)
Allowance for write-down	(28,088)	(28,892)
Work-in-progress (net)	**358,865**	**346,353**
Advances from customers	(310,480)	(384,195)
Progress payments	(2,009,246)	(1,749,832)
Work-in-progress	1,735,070	1,513,214
Provision for expected losses to complete contracts	(12,006)	(10,272)
Allowance for write-down	(1,350)	(4,700)
Progress payments and advances from customers (net)	**(598,012)**	**(635,785)**
Work-in-progress, net of progress payments and advances from customers	**(239,147)**	**(289,432)**

Work in progress is usually recognised under assets when the related gross carrying amount is higher than advances from customers, or under liabilities when advances are greater than the relevant work in progress.
The overall net amount increased by €50,285 thousand. This is due primarily to the reduction in the value of advances from customers, including the return of the remaining advance from the Russian customer Zarubezhstroytechnology (ZST) for the contract in Libya (€29,345 thousand), only partially offset by the higher turnover in the previous year in relation to the production volume.
The net balance of work in progress includes the net advance of €112,154 thousand related to the contract in Libya, which is still halted given the well-known events which have affected this country over the past few years, as detailed in the directors' report. This advance amply covers the work carried out to date and not yet invoiced. As a consequence, at the reporting date, there are no probable risks which would require any accrual.

The provision for expected losses to complete contracts reflects losses not yet incurred but for which a provision was recognised on an accruals basis when the contract budget corresponds to a loss. This provision refers to the relevant contracts. Specifically, €12,803 thousand reflects the decrease in "work in progress (net)" and €12,006 thousand to the increase in "progress payments and advances from customers (net)".
Total advances from customers amount to €352,269 thousand (31 December 2015: €449,789 thousand).

14.8 Trade receivables and loan assets

	31.12.2016		31.12.2015	
(€'000)	**Trade receivables**	**Loan assets**	Trade receivables	Loan assets
Third parties	666,476	33,966	604,606	37,933
Total third parties	**666,476**	**33,966**	**604,606**	**37,933**
Related parties	62,376	267	58,952	563
Total	**728,852**	**34,233**	**663,558**	**38,496**

The nominal value of trade and financial receivables corresponds to their fair value.
Total trade receivables at 31 December 2016 (€728,852 thousand) increased from the balance at the previous year end (€663,558 thousand).
Specifically, trade receivables from third parties increased (€666,476 thousand, compared to €604,606 thousand at 31 December 2015), mainly due to the positions of the parent.

Third party loan assets at 31 December 2016 amounted to €33,966 thousand (31 December 2015: €37,933 thousand) and mainly relate to amounts due from the parent, Ansaldo STS India and Ansaldo STS Malaysia Sdn Bhd.
Specifically:
- €28,443 thousand reflects the euro equivalent amount of the Libyan dinar advance on the first of the two contracts in Libya obtained by the parent and deposited in a local bank and tied up pending the resumption of activities;
- €5,523 thousand reflects the short-term deposits made by Ansaldo STS India (€4,889 thousand) and Ansaldo STS Malaysia Sdn Bhd (€634 thousand) with leading banks.

Related party loan assets amount to €267 thousand (31 December 2015: €563 thousand) and relate to an interest-bearing loan granted to S.P. M4 S.C.p.a..

We note that, during the year, the group factored without recourse receivables not yet due for €11,939 thousand relating to the ultimate parent still existing at year end (31 December 2015: €21,946 thousand for the subsidiary Ansaldo STS France S.A.S., which were fully settled in 2015).

14.9 Tax assets and liabilities

	31.12.2016		31.12.2015	
(€'000)	**Assets**	**Liabilities**	Assets	Liabilities
Direct taxes	22,649	8,978	26,378	10,816
Total	**22,649**	**8,978**	**26,378**	**10,816**

Direct tax assets at 31 December 2016 amount to €22,649 thousand, down €3,729 thousand on the €26,378 thousand at 31 December 2015.
Direct tax assets relate to the parent Ansaldo STS S.p.A. (€17,447 thousand), the companies of the Ansaldo STS France S.A.S. group (€3,508 thousand), the Asia Pacific group companies (€1,315 thousand) and the Ansaldo STS USA INC. group companies (€379 thousand).
The direct tax assets pertaining to the parent Ansaldo STS S.p.A. mainly relate to foreign tax assets (€12,729 thousand; 31 December 2015: €9,974 thousand) and to a tax credit in connection with the reimbursement claimed pursuant to article 2.1-quater of Decree Law no. 201/2011, related to the smaller IRES due for the 2007-2011 period as a result of the IRAP deductibility on personnel expense (€3,716 thousand).

Direct tax liabilities amount to €8,978 thousand, down €1,838 thousand on the balance of €10,816 thousand at 31 December 2015. They mainly relate to the parent Ansaldo STS S.p.A. (€8,304 thousand) and ASTS France S.A.S.'s subsidiaries (€670 thousand).

14.10 Other current assets

(€'000)	**31.12.2016**	31.12.2015
Prepayments - current portion	12,314	8,328
Research grants	18,944	18,046
Employees	2,006	1,340
Social security institutions	30	50
Indirect and other tax assets	31,146	42,678
Derivatives	10,515	5,367
Other	9,645	16,117
Total	**84,600**	**91,926**
Related parties	4	4
Total	**84,604**	**91,930**

Other current third party assets amounted to €84,600 thousand, down €7,326 thousand on the balance of €91,926 thousand at 31 December 2015. The main changes relate to the decrease in indirect taxes due to the lower VAT credit for its own and its branches' items.
With reference to research grants, please refer to the directors' report for details on projects financed. Please note that the disbursement of grants is subject to the implementation of a specific project and/or the channelling of grants for the projects financed.
Other current related party assets amount to €4 thousand and are stable compared to the previous year (€4 thousand).
For additional information on derivatives, reference should be made to note 14.21.

14.11 Cash and cash equivalents

(€'000)	**31.12.2016**	31.12.2015
Cash-in-hand	109	126
Bank accounts	305,477	304,180
Total	**305,586**	**304,306**

Cash and cash equivalents at 31 December 2016 amount to €305,586 thousand and mainly relate to Ansaldo STS S.p.A. (€202,996 thousand), Ansaldo STS France group (€25,852 thousand), the Asia/Pacific subsidiaries (€11,300 thousand), Ansaldo STS USA group (€28,375 thousand), Ansaldo Railway System Trading (Beijing) Company Ltd. (€22,498 thousand) and Ansaldo STS Sweden (€13.655 thousand). They increased by €1,280 thousand in 2016. Cash and cash equivalents are totally available and there are no disposal costs.

14.12 Share capital

		In euros		
Share capital	**No. of shares**	**Nominal amount**	**Treasury shares**	**Total**
31 December 2014	**200,000,000**	**100,000,000**	**(702)**	**99,999,298**
Use of treasury shares for SGP	-	-	702	702
31 December 2015	**200,000,000**	**100,000,000**	**-**	**100,000,000**
Use of treasury shares for SGP	-	-	-	-
31 December 2016	**200,000,000**	**100,000,000**	**-**	**100,000,000**

The fully paid-up share capital amounts to €100,000,000 and is comprised of 200,000,000 ordinary shares with a nominal amount of €0.50 each.
The parent has no treasury shares in the portfolio at 31 December 2016.

Based on the shareholders' register and the communications sent to CONSOB and received by the parent pursuant to article 120 of Italian Legislative decree no. 58 of 24 February 1998, and other available information, the table below gives a list of the shareholders which hold more than 3% of Ansaldo STS S.p.A.'s share capital at 31 December 2016:

Shareholder	% held
HITACHI RAIL ITALY INVESTMENTS	50.772
PAUL E. SINGER (as general partner, directly and indirectly, of the Limited Partnerships Elliott International, LP Elliott Associates, LP and The Liverpool Limited Partnership)	21.909
UBS	6.310

14.13 Retained earnings

Retained earnings (€'000):	
At 31 December 2015	**504,504**
Changes in the consolidation scope	(2,022)
Profit for the year	77,968
Dividends	(36,000)
At 31 December 2016	**544,451**

At 31 December 2016, retained earnings, including profit for the year and consolidation reserves, amounted to €544,451 thousand. The increase is mainly due to the group's profit for the year of €77,968 thousand and the dividend distribution of €36,000 thousand.

14.14 Other reserves

(€'000)	Legal reserve	Hedging reserve	Stock grant reserve	Deferred tax reserve	Translation reserve	Other	Total
31 December 2015	**20,000**	**(1,469)**	**4,611**	**1,763**	**28,722**	**(3,345)**	**50,283**
Change in the consolidation scope	-	-	-	-	293	-	293
Transfers to profit or loss	-	4,355	-	-	-	-	4,355
Net exchange rate gains	-	-	-	-	7,739	-	7,739
Increase/decrease	-	-	3,504	-	-	(2,091)	1,413
Fair value gains (losses)	-	156	-	(1,064)	-	-	(908)
31 December 2016	**20,000**	**3,042**	**8,115**	**699**	**36,755**	**(5,436)**	**63,175**

Legal reserve
The legal reserve amounts to €20,000 thousand and is unchanged from the previous year, having already reached 20% of the share capital at 31 December 2015.

Hedging reserve
This reserve comprises the fair value gains or losses on the derivatives the group uses to hedge its foreign currency exposure equal to €3,042 thousand at 31 December 2016 due to the increases of the period for €4,511 thousand, gross of deferred tax effects, until such time as the hedged underlying affects profit or loss. When this takes place, the reserve is recognised in profit or loss to offset the effects of the hedged transaction.

Stock grant reserve

This reserve was set up in 2007 following the board of directors' approval of the Stock Grant Plan (SGP) under which Ansaldo STS shares are awarded to "strategic" and "key" resources and high potential managers upon reaching the agreed targets. For additional information, reference should be made to section 7 "Human resources and organisation" in the directors' report.
This reserve came to €8,115 thousand at 31 December 2016 and the change compared to last year (€3,504 thousand) is due to:

- the €4,380 thousand attributable to the shares related to 2016 vesting conditions (2014-2016 plan) recognised at the grant date (€10.5 per share);
- a €876 thousand decrease due to the 2013 awarding of shares related to the 2012-2013 stock grant plan.

Deferred tax reserve

The deferred tax reserve amounts to €699 thousand and changed in relation to the recognition of deferred taxation generated by: actuarial gains (losses) following the adoption of the equity method for defined benefit plans and fair value gains and losses on hedging transactions.

Translation reserve

This reserve is used to recognise the exchange rate gains and losses generated by the translation of the financial statements of consolidated companies at 31 December 2016 is equal to €36,755 thousand. The variation showed in the consolidated statement of comprehensive income equal to €7,718 thousand include the impact on minorities for €21 thousand. The largest amounts are generated by the consolidation of the subsidiaries Ansaldo STS USA and Ansaldo STS Australia.

Other

This caption also includes the reserve for defined benefit plans (€-7,513 thousand), to which the change for the year refers (€2,091 thousand: actuarial losses on defined benefit plans), the revaluation reserve pursuant to Law no. 413/91 (€832 thousand) and the reserves set up following the signing of agreements envisaging the parent's receipt of research grants (€1,245 thousand).

14.15 Equity attributable to non-controlling interests

Equity attributable to non-controlling interests relates to Ansaldo STS Beijing Ltd., with its registered office in Beijing (China) (20%), a subsidiary of Ansaldo STS France S.A.S..

(€'000)	
At 31 December 2015	**306**
Loss for the year attributable to non-controlling interests	(65)
Translation reserve attributable to non-controlling interests	(21)
Dividends	-
At 31 December 2016	**220**

14.16 Loans and borrowings

	31.12.2016			31.12.2015		
(€'000)	**Current**	**Non-current**	**Total**	Current	Non-current	Total
Bank loans and borrowings	10	-	10	21	-	21
Other loans and borrowings	1,770	-	1,770	1,607	-	1,607
Related party loans and borrowings	-	-	-	2,500	-	2,500
Total	**1,780**	**-**	**1,780**	**4,128**	**-**	**4,128**

Changes of the year are as follows:

(€'000)	31.12.2015	Increases	Decreases	31.12.2016
Bank loans and borrowings	21	10	(21)	10
Other loans and borrowings	1,607	1,770	(1,607)	1,770
Related party loans and borrowings	2,500	-	(2,500)	-
Total	**4,128**	**1,780**	**(4,128)**	**1,780**

Other loans and borrowings

Third party loans and borrowings amounted to €1,770 thousand and related primarily to the parent as part of joint ventures for which Ansaldo STS is lead contractor.

Financial debt

The repayment plan and exposure to interest rate fluctuations for group financial liabilities are as follows:

	Bank loans and borrowings		Other		Total	
31 December 2016 (€'000)	Floating rate	Fixed rate	Floating rate	Fixed rate	Floating rate	Fixed rate
Within one year	10	-	1,770	-	1,780	-
2-5 years	-	-	-	-	-	-
After five years	-	-	-	-	-	-
Total	**10**	**-**	**1,770**	**-**	**1,780**	**-**

	Bank loans and borrowings		Other		Total	
31 December 2015 (€'000)	Floating rate	Fixed rate	Floating rate	Fixed rate	Floating rate	Fixed rate
Within one year	21	-	4,107	-	4,128	-
2-5 years	-	-	-	-	-	-
After five years	-	-	-	-	-	-
Total	**21**	**-**	**4,107**	**-**	**4,128**	**-**

The following disclosure is presented in accordance with the format required by CONSOB communication no. DEM/6064293 of 28 July 2006.

(€'000)		31.12.2016	31.12.2015
A	Cash-in-hand	109	126
B	Other cash and cash equivalents (bank current accounts)	305,477	304,180
C	Securities held for trading	-	-
D	**CASH AND CASH EQUIVALENTS (A+B+C)**	**305,586**	**304,306**
E	**CURRENT LOAN ASSETS**	**34,233**	**38,496**
F	Current bank loans and borrowings	10	21
G	Current portion of non-current loans and borrowings	-	-
H	Other current loans and borrowings	1,770	4,107
I	**CURRENT FINANCIAL DEBT (F+G+H)**	**1,780**	**4,128**
J	**NET CURRENT FINANCIAL POSITION (I-E-D)**	**(338,039)**	**(338,674)**
K	Non-current bank loans and borrowings	-	-
L	Bonds issued	-	-
M	Other non-current financial liabilities	-	-
N	**NON-CURRENT FINANCIAL DEBT (POSITION) (K+L+M)**	**-**	**-**
O	**NET FINANCIAL POSITION (J+N)**	**(338,039)**	**(338,674)**

14.17 Provisions for risks and charges and contingent liabilities

(€'000)	Product warranties	Disputes with employees	Other	Total
At 31 December 2015	**8,732**	**813**	**1,581**	**11,126**
Accruals	4,677	582	196	5,455
Reversals	(670)	(287)	(59)	(1,016)
Utilisation	(851)	(70)	(564)	(1,485)
Other changes	(40)	-	-	(40)
At 31 December 2016	**11,848**	**1,038**	**1,154**	**14,040**
Current	*8,732*	*813*	*1,581*	*11,126*
Non-current	-	-	-	-
At 31 December 2015	**8,732**	**813**	**1,581**	**11,126**
Current	*11,848*	*1,038*	*1,154*	*14,040*
Non-current	-	-	-	-
At 31 December 2016	**11,848**	**1,038**	**1,154**	**14,040**

The provision for risks and charges totalled €14,040 thousand at 31 December 2016, up by €2,914 thousand on the previous year end (€11,126 thousand). This change is mainly due to the accruals for product warranties of the French subsidiary (€4,577 thousand) and for the provision for disputes with employees (€546 thousand) recognised by the parent Ansaldo STS in order to cover new positions and disputes that arose during the year.
In relation to the provisions for risks, the activities of the Ansaldo STS group companies relate to business units and markets where disputes are generally only settled after a significant time lapse, especially in cases where the counterparty is a public body.
Provisions have been made for risks that are probable and for which the amount can be determined.
Based on current information, specific provisions have not been set aside for the various disputes as they are expected to be resolved satisfactorily and without significantly impacting results.

For additional information, reference should be made to the “Litigation” paragraph of the directors’ report.

14.18 Employee benefits

The amount of and changes in post-employment benefits and the defined benefit plans are as follows:

(€'000)	**31.12.2016**	31.12.2015
Italian post-employment benefits	18,294	17,948
Defined benefit pension plans	17,754	15,207
Total	**36,048**	**33,155**

	ITALIAN POST-EMPLOYMENT BENEFITS		Defined benefit plans	
(€'000)	**31.12.2016**	31.12.2015	**31.12.2016**	31.12.2015
Present value of obligations	18,294	17,948	17,754	15,207
Fair value of plan assets	-	-	-	-
Unrecognised actuarial gain (loss)	-	-	-	-
Total	**18,294**	**17,948**	**17,754**	**15,207**

Changes in defined benefit plans and Italian post-employment benefits are as follows:

	31.12.2016	
(€'000)	**ITALIAN POST-EMPLOYMENT BENEFITS**	**Defined benefit plans**
At 31 December 2015	**17,948**	**15,207**
Current costs	787	990
Benefits paid	(478)	(450)
Actuarial losses taken to equity	37	2,007
of which:		
Actuarial losses taken to equity following changes to financial assumptions	*62*	*1,919*
Actuarial gains/(losses) taken to equity following experience-based adjustments	*(25)*	*88*
At 31 December 2016	**18,294**	**17,754**

The amount recognised in the income statement is as follows:

	ITALIAN POST-EMPLOYMENT BENEFITS		Defined benefit plans	
(€'000)	**31.12.2016**	31.12.2015	**31.12.2016**	31.12.2015
Current service costs	519	324	704	669
Interest expense	268	289	286	265
Total	**787**	**613**	**990**	**934**

The following main actuarial assumptions were used:

	ITALIAN POST-EMPLOYMENT BENEFITS		Defined benefit plans	
	31.12.2016	31.12.2015	**31.12.2016**	31.12.2015
Discount rate (p.a.)	1.50%	1.89%	1.4%	1.9%
Salary increase rate	N.A.	N.A.	2.5%	2.5%
Turnover rate	2.09% - 5.69%	2.09% - 5.69%	0.91% - 3.26%	0.91% - 3.26%

A sensitivity analysis was performed for each significant actuarial assumption, showing the effects on the company's obligation:

	ITALIAN POST-EMPLOYMENT BENEFITS		Defined benefit plans	
	-0.25%	**0.25%**	**-0.25%**	**0.25%**
Discount rate (p.a.)	18,671	17,938	18,495	16,811
Inflation rate	18,027	18,567	16,817	18,485
Turnover rate	18,291	18,297	17,341	17,914

The average term of the Italian post-employment benefits and other defined benefit plans is 13 years.
The different pension systems included in the calculation does not have peculiarities that may affect the outlook.

14.19 Other current and non-current liabilities

	31.12.2016		31.12.2015	
(€'000)	**Current**	**Non-current**	Current	Non-current
Employees	39,316	8,178	34,995	7,353
Indirect and other tax liabilities	14,471	-	15,079	-
Amounts due to social security institutions	17,401	-	17,611	-
Derivatives	17,008	-	14,612	-
Other	31,750	4,730	28,556	4,439
Total other third party liabilities	**119,946**	**12,908**	**110,853**	**11,792**
Other related party liabilities	410	-	402	-
Total	**120,356**	**12,908**	**111,255**	**11,792**

Other current and non-current third party liabilities amount to €132,854 thousand, up €10,209 thousand on 31 December 2015 (€122,645 thousand). As highlighted in the table, the increase relates primarily to the items derivatives, employees and other third party liabilities.
Specifically, other third party liabilities include the outstanding 62% of the consideration to be paid for the acquisition of the investment in Metro C S.c.p.A. (€12,950 thousand) (31 December 2015: €12,950 thousand) and advances for R&D grants of the parent of €10,601 thousand.
Other current and non-current related-party liabilities amount to €410 thousand (31 December 2015: €402 thousand).
For additional information on derivatives, reference should be made to note 14.21.

14.20 Trade payables

(€'000)	**31.12.2016**	31.12.2015
Trade payables	438,448	390,726
Total third party trade payables	**438,448**	**390,726**
Related party trade payables	19,671	25,247
Total	**458,119**	**415,973**

The nominal value of trade and financial receivables corresponds to their fair value.
Total trade payables at 31 December 2016 of €458,119 thousand increased on the previous year's balance of €415,973 thousand.
Third party trade payables mainly relate to Ansaldo STS S.p.A. (€358,277 thousand), Ansaldo STS France group (€35,872 thousand), Ansaldo STS USA group (€25,717 thousand) and the Asia/Pacific subsidiaries (€12,446 thousand).

14.21 Derivatives

Derivative assets and liabilities may be analysed as follows:

	31.12.2016		31.12.2015	
(€'000)	**Assets**	**Liabilities**	Assets	Liabilities
Fair value hedges	4,043	247	3,599	163
Cash flow hedges	6,472	16,761	1,768	14,449
Currency hedges	**10,515**	**17,008**	**5,367**	**14,612**

Derivative assets and liabilities at 31 December 2016 increased from the previous year's balance due to the new cash flow hedges.

Fair value measurement

Ansaldo STS group does not hold listed derivative instruments at 31 December 2016. The fair value of unlisted derivatives is measured using financial valuation techniques. Specifically, the fair value of currency forwards is determined on the basis of market rates at the reporting date and the exchange rate spreads between the relevant currencies. The fair value of swaps is calculated discounting the future cash flows at market rates.

Hedges are mainly undertaken with banks. The group has contracts in place for the following notional foreign currency amounts at the reporting date:

(€'000)	**31.12.2016**	31.12.2015
Euro	56,854	62,345
US dollar	345,298	397,556
Pound sterling	55,729	10,014
Swedish krona	1,648	29,849
Australian dollar	6,783	34,436
Hong Kong dollar	455	1,291
Indian rupee	5,164	5,133
United Arab Emirates dirham	12,921	12,511

Although it is exposed to a limited extent to the risk of fluctuations in interest rates, the group does not hedge the interest rate risk.

14.22 Guarantees and other commitments

Leases

The group is party to certain operating leases, mainly for use of property, plant and equipment. Minimum future payments are as follows:

(€'000)	**Operating leases**
Within one year	3,779
Between two and five years	10,724
After five years	-
	14,503

Guarantee portfolio

Sureties and bonds issued by banks or insurance companies to customers for trading transactions play a fundamental role in the finalisation of national/international tenders and are a basic requirement in the awarding of contracts.

Bid bonds

This guarantee is given to participate in tenders. Usually, it has a 3/6-month term and reflects 1-3% of the basic bid amount or the estimated bid amount.
Because of its nature, the total value of the bid bond with respect to guarantees is usually modest. At 31 December 2016, it accounted for approximately €26 million in the guarantee portfolio.

Performance bonds

This guarantee ensures the successful performance of the project or the supply. They are usually required when signing contracts and its term reflects that of the works or the supply for which they were issued.
They can be of a short-term nature in the case of supply contracts, while they can be of a very long-term nature for turnkey contracts as they include the operation & maintenance stage. The amount depends on the type of contract and the relevant context. Usually, it ranges between 10-15% of the contractual value.
This type of guarantee accounted for approximately €1,050 million in the guarantee portfolio at 31 December 2016.

Retention money bonds
Where contractually provided for, retention money bonds represent the guarantee given to release the amounts held by the customer as a guarantee on the services provided and invoiced. They are released progressively and for minimum amounts (for example, 5% of works/supplies performed and invoiced). Where not explicitly provided for in the contract, the bond can be also be released upon completion of works.
At 31 December 2016, it accounted for approximately €26 million in the guarantee portfolio.

Advance payment bonds
Advance payment bonds, also called down payment bonds, enable the customer to recover an advance payment made to the supplier at the beginning of the project/supply. They decrease as the advance is reabsorbed through the invoicing of the supplier to the customer. The amount of this guarantee varies according to the contract type and the context in which it has been issued. Generally, it can vary from 10% to 15% of the contractual amount up to 25%-35% in some international contexts. At 31 December 2016, these guarantees amounted to over €546 million.

Counter guarantees
Counter guarantees are another type of guarantee. They are presented by the parent Ansaldo STS S.p.A. for contracts agreed as member of consortia and joint ventures. At 31 December 2016, this type of guarantee amounted to approximately €114 million.

Part of the sureties detailed above was released at 31 December 2016 by using the credit lines of Hitachi Ltd (€184 million) and Ansaldo STS S.p.A. (€288 million) for transactions on behalf of the subsidiaries.

Parent company guarantees - Ansaldo STS S.p.A.
The parent company guarantee (PCG) represents the guarantee given by the parent in favour of third parties to guarantee the commitments of a subsidiary. This guarantee can be given for various purposes: issuing commercial guarantees, where the parent Ansaldo STS S.p.A. takes over as guarantor with the banks, for a total of approximately €850 million at 31 December 2016, to the guarantees released by the parent to the banks for the credit lines granted to Ansaldo STS group companies totalling €234 million at 31 December 2016.

Parent Company guarantee Hitachi ltd
At 31 December 2016, the parent has parent company guarantees issued by the ultimate parent Hitachi ltd (€1,284 thousand) to foreign customers of the group.

The group has the following guarantees at 31 December 2016:

Direct guarantees and hold harmless agreements for guarantees issued by third parties in the interest of the group to customers and other third parties (€'000)	**Total**
Personal guarantees issued by Hitachi (parent company guarantees) to customers for trading transactions	1,284,230.3
Personal guarantees issued by Ansaldo STS (parent company guarantees) to customers for trading transactions	848,165.2
Sureties and bonds (bid bonds, performance bonds, retention bonds, advance payment bonds, counter guarantees and other minor guarantees) issued by banks or insurance companies to customers for trading transactions	1,810,834.4
of which, counter-guaranteed by Hitachi	*183,787.8*
of which, counter-guaranteed by Ansaldo STS	*288,515.9*
Direct and other guarantees issued by Ansaldo STS, banks or insurance companies to other third parties for non-contractual/trading guarantees (financial and tax transactions)	39,286.0
Total	**3,982,515.9**

15 Notes to the income statement

15.1 Impact of related party transactions on profit or loss

2016 (€'000)	Revenue	Other operating income	Costs	Financial income	Financial expense	Other operating expense
Ultimate parent						
Hitachi Rail Europe Ltd	25	-	(7)	-	-	-
Hitachi Ltd (Rail)	492	-	563	-	-	-
Subsidiaries						
Alifana S.c.r.l.	25	-	93	-	-	-
Alifana Due S.c.r.l.	137	-	260	-	-	-
Associates						
International Metro Service S.r.l.	(76)	7	-	-	-	4
Metro 5 S.p.A.	12,979	1,277	110	-	-	-
Pegaso S.c.r.l. (in liq.)	-	-	209	-	-	-
SP M4 S.C.p.A (in liq.)	-	-	33	-	-	-
Metro Brescia S.r.l.	345	16	9	-	-	-
Metro Service A.S.	6,283	-	32,797	-	-	-
JOINT VENTURES						
Kazakhstan	55	-	-	-	-	-
Balfour Beatty Ansaldo Syst. JV SDN BHD	(2,385)	-	41	-	-	-
Consortia						
Ascosa Quattro consortium	59	-	-	-	-	-
Ferroviario Vesuviano consortium	592	-	78	-	-	-
Saturno Consortium	34,809	-	1,683	-	-	-
San Giorgio Volla 2 consortium	2,877	-	197	-	-	-
San Giorgio Volla consortium	(5)	-	4	-	-	-
MM4 consortium	22,467	-	877	-	-	-
Cris consortium	-	-	1	-	-	-
Other group companies						
Hitachi Rail Italy S.p.A.	12,067	-	28,039	-	-	-
Hitachi Rail Inc.	843	-	-	-	-	-
Hitachi Rail India Pvt Ltd Rail Systems Company	427	-	-	-	-	-
Hitachi High Technologies Europe Gmbh	101	-	-	-	-	-
I.M. Intermetro S.p.A. (in liquidation)	1	-	-	-	-	-
Total	**92,118**	**1,300**	**64,987**	**-**	**-**	**4**
% of the total corresponding financial statements caption	**7%**	**6%**	**8%**	**-**	**-**	**0.02%**

2015 (€'000)	Revenue	Other operating income	Costs	Financial income	Financial expense	Other operating expense
Ultimate parent						
Hitachi Rail Europe Ltd	-	-	(301)	-	-	-
Subsidiaries						
Alifana S.c.r.l.	25	-	-	-	-	-
Alifana Due S.c.r.l.	195	-	194	-	-	-
Associates						
International Metro Service S.r.l.	-	10	-	-	-	-
Metro 5 S.p.A.	26,484	4,067	112	-	-	-
Pegaso S.c.r.l. (in liq.)	-	-	185	-	-	-
SP M4 S.C.p.A (in liq.)	-	-	503	210	-	-
Metro Brescia S.r.l.	1,370	74	60	11	-	-
Metro Service A.S.	-	-	39,316	-	-	-
JOINT VENTURES						
Balfour Beatty Ansaldo Syst. JV SDN BHD	(2,770)	-	-	-	-	-
Consortia						
Ascosa Quattro consortium	134	-	40	-	-	-
Cesit consortium	-	-	-	-	-	-
Ferroviario Vesuviano consortium	(993)	-	49	-	-	-
Saturno Consortium	21,343	-	1,911	-	-	-
San Giorgio Volla 2 consortium	668	-	70	-	-	-
San Giorgio Volla consortium	(80)	-	(4)	-	-	-
MM4 consortium	22,468	-	537	-	-	-
Cris consortium	-	-	1	-	-	-
Other group companies						
Hitachi Rail Italy S.p.A.*	4,343	-	14,084	-	-	-
I.M. Intermetro S.p.A. (in liquidation)	15	-	2	-	-	-
Total	**73,202**	**4,151**	**56,759**	**221**	**-**	**-**
% of the total corresponding financial statements caption	**5%**	**17%**	**6%**	**1%**	**-**	**-**

* As of 2 November 2015.

15.2 Revenue

(€'000)	31.12.2016	31.12.2015
Sales	889,329	2,587,278
Services	153,970	165,451
	1,043,299	**2,752,729**
Change in work in progress	191,969	(1,442,094)
Third party revenue	**1,235,268**	**1,310,635**
Related party revenue	**92,118**	**73,202**
Total revenue	**1,327,386**	**1,383,837**

Revenue amounted to €1,327,386 thousand in 2016, down €56,451 thousand on the €1,383,837 thousand balance in 2015. The decrease was mainly due to projects of the subsidiaries Ansaldo STS Australia and USA, only partially offset by the increase of the parent.
Related party revenue increased by €18,916 thousand compared to the previous year.

15.3 Other operating income

(€'000)	31.12.2016	31.12.2015
R&D grants	1,834	2,683
Training grants	82	202
Gains on sales of property, plant and equipment and intangible assets	16	108
Reversals of impairment losses on loans and receivables	670	911
Reversals of provisions for risks and charges	59	103
Release of the provision for expected losses to complete contracts	1,334	1,025
Royalties	292	288
Financial income and exchange rate gains on operating items	1,900	2,218
Tax asset for R&D	3,327	2,974
Other operating income	10,442	10,095
Other third party operating income	**19,956**	**20,607**
Other related party operating income	**1,300**	**4,151**
Total other operating income	**21,256**	**24,758**

Other operating income amounted to €21,256 thousand, down on the balance of the previous year (€24,758 thousand), primarily due to the reduction in other operating income from related parties due to the closure in 2015 of specific transactions with the consortia/companies of which Ansaldo STS S.p.A. is part.
The value of other operating income from third parties declined due to the decrease in grants for research and development projects.

15.4 Purchases and services

(€'000)	31.12.2016	31.12.2015
Materials	335,163	340,717
Change in inventories	(4,805)	(745)
Services	438,579	494,588
Rentals and operating leases	20,365	21,570
Total third party purchases and services	**789,302**	**856,130**
Total related party purchases and services	**64,987**	**56,759**
Total purchases and services	**854,289**	**912,889**

Total purchases and services of €854,289 thousand decreased by €58,600 thousand on those for the previous year (€912,889 thousand) mainly due to lower production volumes in 2016.
Purchases of materials and change in inventories amount to €330,358 thousand (2015: €339,972 thousand), down by €9,614 thousand.
Services amount to €438,579 thousand (2015: €494,588 thousand), down by €56,009 thousand.
Rentals and operating leases amount to €20,365 thousand (2015: €21,570 thousand), down by €1,205 thousand. They mainly relate to long-term rentals of company cars, software licences and the lease of premises.
Related party purchases and services rose by €8,228 thousand.

Reference should be made to note 15.1 “Impact of related party transactions on profit or loss” for further details on related party transactions.

15.5 Personnel expense

(€’000)	**31.12.2016**	31.12.2015
Wages and salaries	253,208	250,532
Stock grant plans	4,731	1,891
Social security and pension contributions	59,306	57,200
Italian post-employment benefits	519	324
Other defined benefit plans	704	669
Other defined contribution plans	4,363	4,439
Recovery of personnel expense	(836)	(1,264)
Disputes with personnel	295	29
Restructuring costs	-	-
Other costs	10,048	7,856
Total	**332,338**	**321,676**

The headcount at 31 December 2016 numbered 3,951, up by 179 employees on the previous year (3,772).
The average headcount on the payroll in 2016 numbered 3,828, compared to 3,748 employees in 2015, up by 80 employees.
Personnel expense came to €332,338 thousand, up by €10,662 thousand on the previous year (€321,676 thousand). This was due to higher costs for wages and salaries and for social security and pension contributions, as a result of the higher average headcount, and the recognition of costs correlated with transactions with the company’s strategic and non-strategic personnel.
In relation to incentive plans which involve assigning shares to employees, on 20 February 2014, the Board of Directors on the basis of the proposal of the parent’s remuneration committee approved a three-year stock grant plan for 2014 - 2016 which was subsequently passed by the shareholders in their meeting of 17 April 2014. This plan, which applies to a maximum of 46 employees plus the CEO and key managers, has the same vesting conditions as the 2012-2013 plan (EVA, FOCF and share performance against the FTSE Italia All-Share index).
The stock grant plan cost is recognised on an accruals basis in the reporting period in which the services are rendered. The amount therefore relates to the portion pertaining to the year of the shares related to the 2016 vesting conditions (as per the 2014-2016 plan), which will be delivered considering the three-year vesting conditions.
In accordance with IFRS 2 “Share-based payment” and IFRIC 11 “Group and treasury share transactions” and their current interpretations, the cost for the stock grant plan for 2016, equal to €4,731 thousand (2015: €1,891 thousand), was recognised with a balancing entry in an equity reserve.
The Italian post-employment benefit and other defined benefit plan expense represents only the service cost, as interest expense is classified under financial expense following the adoption of the equity method.

15.6 Amortisation, depreciation and impairment losses

(€'000)	**31.12.2016**	31.12.2015
Amortisation and depreciation:		
- intangible assets	7,353	6,601
- property, plant and equipment	9,597	9,137
	16,950	**15,738**
Impairment losses:		
- current loans and receivables	1,368	2,968
- other assets	7	19
	1,375	**2,987**
Total amortisation, depreciation and impairment losses	**18,325**	**18,725**

Amortisation, depreciation and impairment losses amount to €18,325 thousand and decreased by €400 thousand on 2015 (€18,725 thousand). This change was caused by lower impairment losses on current loans and receivables, partially offset by greater amortisation and depreciation for the period.
Specifically, €7,353 thousand relates to intangible assets and €9,597 thousand to property, plant and equipment.

15.7 Other operating expense

(€'000)	**31.12.2016**	31.12.2015
Accruals to the provisions for risks and charges	4,873	2,447
Losses to complete contracts	925	4,085
Membership fees	676	762
Losses on sales of property, plant and equipment and intangible assets	87	196
Exchange rate losses on operating items	9,181	9,275
Interest and other operating expense	1,347	1,873
Indirect taxes	2,833	3,753
Other operating expense	1,581	2,193
Total other third party operating expense	**21,503**	**24,584**
Other related party operating expense	**4**	**-**
Total other operating expense	**21,507**	**24,584**

Other third party and related party operating expense amounted to €21,507 thousand, down by €3,077 thousand on 2015 (€24,584 thousand). Specifically, the decrease related to lower losses to complete contracts and lower indirect taxes.
Starting from 2012, expected losses to complete contracts are no longer recognised against revenue, rather under "Other operating expense".

15.8 Internal work capitalised

(€'000)	**31.12.2016**	31.12.2015
Internal work capitalised	(5,131)	(5,312)

Internal work capitalised mainly relates to:
- the parent Ansaldo STS S.p.A. (€4,700 thousand), almost entirely related to the Satellite and Rail Telecom project begun in 2012 to develop satellite technologies for new railway signalling systems. This project is co-financed with the European Space Agency and the Galileo Supervisory Authority;
- the French subsidiary Ansaldo STS France S.A.S. (€431 thousand), with respect to costs for the internal construction (personnel, materials and services) of intangible assets and property, plant and equipment.

15.9 Net financial expense

	31.12.2016			31.12.2015		
(€'000)	**Income**	**Expense**	**Net**	Income	Expense	Net
Interest and fees	1,001	8,206	(7,205)	1,246	1,786	(540)
Exchange rate gains and losses	10,819	12,877	(2,058)	28,828	28,980	(152)
Fair value gains and losses	621	4,561	(3,940)	545	3,347	(2,802)
Interest on Italian post-employment benefits	-	268	(268)	-	289	(289)
Interest on other defined benefit plans	-	286	(286)	-	265	(265)
Other financial income and expense	-	740	(740)	-	554	(554)
Total net financial expense	**12,441**	**26,938**	**(14,497)**	**30,619**	**35,221**	**(4,602)**
Net related party financial income	**-**	**-**	**-**	**221**	**-**	**221**
Total	**12,441**	**26,938**	**(14,497)**	**30,840**	**35,221**	**(4,381)**

In 2016, net third party financial expense amounted to €14,497 thousand, compared to €4,602 thousand in 2015. The decrease of €9,895 thousand is due primarily to the item expense for interest and fees, which includes interest paid to the Russian customer following the conclusion of the arbitration on the Libyan contract (€7,670 thousand). As shown in the table, interest on the Italian post-employment benefits and defined benefit plans amounts to €268 thousand (€289 thousand in 2015) and €286 thousand (€265 thousand in 2015), respectively.

15.10 Share of profits (losses) of equity-accounted investees

	31.12.2016			31.12.2015		
(€'000)	**Income**	**Expense**	**Net**	Income	Expense	Net
Share of profits (losses) of equity-accounted investees	4,345	-	4,345	5,324	-	5,324
Total	**4,345**	**-**	**4,345**	**5,324**	**-**	**5,324**

The share of profits (losses) of equity-accounted investees is a positive €4,345 thousand and comprises the profit of the investee International Metro Service S.r.l. (€1,460 thousand), the associates Metro 5 S.p.A. (€2,502 thousand) and Metro Brescia S.r.l. (€195 thousand) and Balfour Beatty Ansaldo Systems JV SDN BHD (€188 thousand).

15.11 Income taxes

This caption comprises:

(€'000)	**31.12.2016**	31.12.2015
IRES	12,663	12,594
IRAP	2,134	1,985
Income from consolidation	-	-
Other foreign taxes	23,312	27,503
Prior year taxes	982	(163)
Provisions for tax risks	-	550
Net deferred tax (income) expense	(345)	1,207
Total	**38,746**	**43,676**

The value of taxes was €38,746 thousand in 2016, a reduction of €4,930 thousand compared to the previous year, essentially due to the lower pre-tax profit. Specifically:
- the €1,552 thousand decrease in net deferred taxes, which declined from net deferred tax income of €1,207 thousand to net deferred tax expense of €345 thousand, due primarily to the recognition of deferred tax assets of the group's foreign subsidiaries;
- IRES (€12,663 thousand) and IRAP (€2,134 thousand), related to the parent, were in line with the previous year;
- income taxes of foreign companies (€23,312 thousand) decreased compared to the previous year (€27,503 thousand in 2015), primarily due to the decline in their pre-tax profit.

The difference between the theoretical and effective tax rates is analysed below:

(€'000)	31.12.2016 amount		%	31.12.2015 amount		%
Pre-tax profit	**116,649**	**-**		**136.712**	**-**	
Taxes calculated at ruling tax rates		32,078	27.50%		37,596	27.50%
Permanent differences	2,484	683	0.59%	(356)	(98)	-0.07%
	119,133	**32,761**	**28.09%**	**136,356**	**37,498**	**27.43%**
Different rates on foreign taxes and/or due to losses of the year	-	1,846	1.58%	-	3,078	2.25%
IRAP and other taxes calculated on a basis other than pre-tax profit	-	3,156	2.71%	-	2,713	1.98%
Prior year taxes	-	982	0.84%	-	(163)	-0.12%
Provisions for tax risks	-	-	0.00%	-	550	0.40%
Total effective taxes recognised in profit or loss		**38,746**	**33.22%**		**43,676**	**31.95%**

At 31 December 2016, the effective tax rate is 33.22%, compared to 31.95% in the previous year, with an increase of 1.27%, due to the different mix of pre-tax profits (losses) of individual group companies.

(€'000)	Income statement Assets	Income statement Liabilities	Statement of financial position Assets	Statement of financial position Liabilities
Italian post-employment benefits and pension funds	184	-	5,262	-
Remuneration	-	-	729	-
Property, plant and equipment and intangible assets	(13)	27	975	578
Provisions for risks and charges	(1,008)	-	18,996	-
Research grants	-	(39)	629	2,191
Allowances for WIP and inventory write-down	68	-	2,316	-
Cash flow hedges - defined benefit plans	-	-	1,563	2,379
Tax losses	(217)	-	1,497	-
Other	1,637	318	9,357	7,027
Total	**651**	**306**	**41,324**	**12,175**

The deferred tax assets generated by the "Provisions for risks and charges" mainly relate to the US subsidiaries (€5,725 thousand) and the parent (€13,151 thousand).
The deferred tax assets on tax losses fully relate to the subsidiary Ansaldo STS USA (€1,497 thousand).
The deferred tax assets related to the allowance for work-in-progress and inventory write-down mainly relate to the subsidiary Ansaldo STS USA (€333 thousand), Ansaldo STS France (€1,790 thousand) and the parent Ansaldo STS S.p.A. (€193 thousand).
Deferred tax assets are recognized taking into consideration their recoverability in each component of the consoldiated financial statements, based on the avilability of the expected forecasted future taxable income.

"Other" mainly relates to the parent, Ansaldo STS S.p.A. (€2,496 thousand), the subsidiary Ansaldo STS Australia (€2,404 thousand) and the subsidiaries Ansaldo STS USA INC. (€3,684 thousand) and Ansaldo STS France (€773 thousand).
Deferred tax liabilities mainly relate to the parent.
Deferred tax assets and liabilities include those recognised with a balancing entry directly in equity, on derivatives recognised as cash-flow hedges (impact of the period of -€1,767 thousand) and actuarial gains/losses following the adoption of the equity method for defined benefit plans (impact of the period of €703 thousand).

This equity item changed as follows during the year:

(€'000)	31.12.2015	Transfers to profit or loss	Fair value gains or losses	Other changes	31.12.2016
Deferred taxes directly recognised in equity	**1,763**	**-**	**(1,064)**	**-**	**699**

16 Earning per share

Earnings per share (“EPS”) are calculated by:
- dividing the profit for the year attributable to holders of ordinary shares by the average number of ordinary shares outstanding in the year, net of treasury shares (basic EPS);
- dividing the profit for the year by the average number of ordinary shares and those that could arise from the exercise of all options under stock option plans, net of treasury shares (diluted EPS).

Basic EPS	**31.12.2016**	31.12.2015
Average shares outstanding during the year	199,996,346	199,995,192
Profit for the year (€’000)	77,903	93,036
Basic and diluted EPS	**0.39**	**0.47**

17 Cash flows from operating activities

The following table shows the cash flows from operating activities:

(€'000)	**31.12.2016**	31.12.2015
Profit for the year	77,903	93,036
Share of profits (losses) of equity-accounted investees	(4,345)	(5,324)
Income taxes	38,746	43,676
Italian post-employment and other employee benefits	787	613
Stock grant plans	4,731	1,891
Net gains on the sale of assets	71	87
Net financial income	14,497	4,381
Amortisation, depreciation and impairment losses	18,325	18,725
Accruals to/reversals of provisions for risks	4,814	2,344
Other operating income/expense	3,118	7,802
Write-downs/reversals of write-downs of inventories and work in progress	(4,498)	(5,223)
Total	**154,149**	**162,008**

The change in working capital, shown net of the impacts of acquisitions and sales of consolidated companies and exchange rate gains and losses, comprises:

(€'000)	**31.12.2016**	31.12.2015
Inventories	(2,981)	(14,223)
Work in progress and progress payments and advances from customers	(63,094)	(28,366)
Trade receivables and payables	(17,077)	51,483
Total	**(83,152)**	**8,894**

The change in other operating assets and liabilities, shown net of the impacts of acquisitions and sales of consolidated companies and exchange rate gains and losses, comprises:

(€'000)	**31.12.2016**	31.12.2015
Payment of Italian and other post-employment benefits	(7,547)	(7,513)
Taxes paid	(20,928)	(33,003)
Changes in other operating items	11,200	(27,983)
Total	**(17,275)**	**(68,499)**

Reference should be made to section 2.3 on the group's financial position for a discussion of changes in the consolidated statement of cash flows.

18 Financial risk management

The group's operations expose it to the following financial risks:
- market risks, related to currency risk, operations in currencies other than the functional currency, interest rate risk;
- liquidity risks, related to the availability of financial resources and access to the credit market;
- credit risk, arising from normal trading transactions or financing activities.

The group specifically monitors each of these financial risks and acts promptly to minimise them including via hedging derivatives. Ansaldo STS group's approach to managing these risks, in line with internal policies, is described below.

Currency risk

As described in the treasury management policy, Ansaldo STS group manages currency risk by pursuing the following objectives:
- limiting potential losses generated by unfavourable exchange rate fluctuations against the currency used by Ansaldo STS S.p.A. and its subsidiaries;
- limiting forecast or actual costs related to the implementation of currency risk management policies.

Currency risk shall only be hedged if it has a material impact on cash flows, compared to the functional currency. Costs and risks related to a hedging policy (hedge, no hedge or partial hedge) must be acceptable in both financial and commercial terms.
Currency risk may be hedged using the following tools:
- purchase and sale of currency forwards: these are the most commonly used cash flows hedges;
- funding/lending in foreign currency: used to mitigate the currency risk related to similar receivable and payable positions with banks or group companies.

The use of funding and lending in foreign currency as a hedging instrument shall only take place when consistent with Ansaldo STS group's overall treasury management and financial position (both long- and short-term).
The purchase and sale of foreign currency is generally the hedge tool used when foreign markets are not sufficiently liquid or when it is the most cost effective hedging method.

Currency risk hedging

There are three main types of currency risk:
1. The economic risk is the impact exchange rate fluctuations can have on capital budgeting decisions (investments, the location of production facilities and supply markets).
2. Transaction risk is the possibility that exchange rates may fluctuate between the time a commitment is undertaken to make future collections or payments in foreign currency (price list, budgets, orders preparation and invoicing) and when the actual collection or payment takes place, generating either exchange rate gains or losses.
3. The translation risk is the effect on the financial statements of multinational companies of translating dividends, or of consolidating assets and liabilities when exchange rates adopted for consolidation purposes differ from one reporting period to the next.

Ansaldo STS group hedges the transaction risk in line with the foreign exchange risk management policy, i.e., via the systematic hedge of cash flows generated by firm contractual commitments to buy and sell, in order to fix the exchange rates at the date the construction contracts are agreed, thereby neutralising the effects of exchange rate fluctuations.

Cash flow hedges

Hedges are entered into at the time sales contracts are agreed, using plain vanilla instruments (currency swaps and forwards) that qualify for hedge accounting under IAS 39. They are recognised as cash flow hedges, whereby the effective portion of fair value gains or losses on hedging derivatives is recognised in the relevant hedging reserve once the hedging strategy is demonstrated to be effective.
If the hedge is not deemed effective (i.e., does not fall within the 80% to 125% range), fair value gains or losses on hedging instruments are immediately expensed as financial items and the related fair value gains or losses accumulated in the hedging reserve up to the date of the most recent successful test of effectiveness are reclassified to profit or loss.
The calculation of hedge effectiveness does not include the fair value of financial income and expense as it is directly recognised in profit or loss. Accordingly, the impact on profit or loss of this component is not deferred, improving the transparency and consistency of the hedging reserve. Moreover, the result of the forex effectiveness test is simplified as comparison is limited to two notional amounts: the forex and the hedged underlying.

Fair value hedges

These hedge fair value changes in a recognised asset or liability, an unrecognised firm commitment, an identified portion of this asset, liability or irrevocable commitment, related to a particular risk and that could impact profit or loss.
The group hedges fair value gains or losses related to the currency risk on recognised assets and liabilities.

Hedges are mainly undertaken with banks. The group has contracts in place for the following notional foreign currency amounts at the reporting date:

local currency in €'000	**Sell16**	**Buy16**	**31.12.2016**	Sell15	Buy15	31.12.2015
Euro	25,169	31,685	**56,854**	21,482	40,863	**62,345**
US dollar	263,912	81,386	**345,298**	330,936	66,620	**397,556**
Pound sterling	55,729	-	**55,729**	10,014	-	**10,014**
Swedish krona	824	824	**1,648**	-	29,849	**29,849**
Australian dollar	-	6,783	**6,783**	-	34,436	**34,436**
Hong Kong dollar	455	-	**455**	1,291	-	**1,291**
Indian rupee	5,164	-	**5,164**	5,133	-	**5,133**
United Arab Emirates dirham	12,921	-	**12,921**	12,511	-	**12,511**

The net fair value of the derivatives in place at 31 December 2016 was a negative €6,493 thousand.

Sensitivity analysis of exchange rates

For the purposes of the presentation of market risks, IFRS 7 requires a sensitivity analysis that shows the effects of the hypothetical changes in the most relevant market variables on profit or loss and equity.
Currency risks arise from recognised financial instruments (including trade receivables and payables) or highly probable cash flows denominated in a currency other than the functional currency.
Since the US dollar is the primary foreign currency used by the group, a sensitivity analysis was performed on financial instruments denominated in dollars in place at 31 December 2016, assuming a 5% appreciation (depreciation) of the euro against the US dollar.

This analysis showed that an appreciation or depreciation of the euro against the US dollar would have the following impact on the group's consolidated financial statements:

	31.12.2016		31.12.2015	
(€'000)	**+5% - appreciation of the euro against the US dollar**	**-5% - depreciation of the euro against the US dollar**	+5% - appreciation of the euro against the US dollar	-5% - depreciation of the euro against the US dollar
Income statement	(4,613)	5,098	(6,500)	7,184
Hedging reserve	11,692	(12,920)	13,100	(14,553)

The sensitivity of the income statement to the Euro/US dollar exchange rate fluctuations is lower than in 2015, and the impact on the financial position decreased, as a result of the new significant forex positions opened by the parent Ansaldo STS S.p.A. during the year.

Interest rate risk

Under the policy, the aim of interest rate risk management is to reduce the negative effects of interest rate fluctuations on the group's financial position, results of operations and weighted average cost of capital.
Ansaldo STS group manages interest rate risk to pursue the following objectives:

- stabilise the weighted average cost of capital;
- minimise Ansaldo STS group's medium- and long-term weighted average cost of capital by focusing on the effects of interest rates on both debt funding and equity funding;
- optimise the return on financial investments within a general risk/return trade-off;
- limit costs related to the implementation of interest rate management policies, including direct costs related to the use of specific instruments and indirect costs linked to the internal structure needed to manage the risk.

Again in 2016, the group managed this risk without the use of derivatives.

Sensitivity analysis of interest rates

A sensitivity analysis was performed on the assets and liabilities exposed to interest rate risk to assess the impact on profit or loss, assuming a parallel and symmetric 50 basis point rise (fall) (0.5%) in interest rates; the adopted range has been chosen by IFRS for the analysis.
The impact of these scenarios on the group's financial statements at 31 December 2016 is summarised in the following table:

	31.12.2016		31.12.2015	
(€'000)	**+50 bps**	**-50 bps**	**+50 bps**	**-50 bps**
Income statement	1,222	(1,222)	760	(760)

These impacts are the result of lower interest income that would be produced by floating rate net financial position, in the case of interest rates greater or lower by 50 basis points, respectively.
The change in interest rates would have no impact on the measurement of recognised financial instruments, as there are no financial assets or liabilities (not derivative) recognised at fair value through profit or loss.
Moreover, the derivatives entered into by the group are exclusively exchange rate derivatives and a change in the interest rates of the various currencies would have no relevant impacts on fair value at year end.
There are no impacts on equity, as the group has no cash flow hedges on the interest rate risk.
The results achieved at 31 December 2016 increased on those of the previous year as a result of to the increase in receivables and payables exposed to interest rate fluctuations.

Liquidity risk
Ansaldo STS group has rolled out a series of tools to optimise treasury management with a view to the efficient management of cash and cash equivalents and to help its business grow. This was achieved by centralising the treasury function (current accounts between the parent and the group companies) and an active presence on financial markets which has enabled the group to obtain short- and medium- to long-term non-revolving cash and unsecured credit lines to meet its needs.
It had a net financial position of (€338,039) thousand at 31 December 2016, in line with the net financial position of (€338,674) thousand at 31 December 2015.

Liquidity analysis – amounts in thousands of euros – figures at 31.12.2016

A – Financial liabilities excluding derivatives	Within one year	Between one and five years	After five years
Non-current liabilities			
Third party loans and borrowings	-	-	-
Related party loans and borrowings	-	-	-
Other non-current liabilities	3,166	544	-
Current liabilities			
Related party trade payables	8,559	11,112	-
Third party trade payables	423,167	15,281	-
Third party financial liabilities	1,780	-	-
Related party financial liabilities	-	-	-
Other financial liabilities	-	-	-
Total A	**436,672**	**26,937**	**-**
B – Negative value of derivatives			
Hedging derivatives	17,008	-	-
Trading derivatives (economic hedge)	-	-	-
Total B	**17,008**	**-**	**-**
Total A + B	**453,680**	**26,937**	**-**

The following financial assets were recognised against loans and borrowings and trade payables of €480,617 thousand:

C - Financial assets	
Cash-in-hand and cash and cash equivalents	305,586
Third party trade receivables	666,476
Related party trade receivables	62,376
Receivables at FV - third parties	-
Receivables at FV - related parties	-
Loan assets	34,233
Other	-
Positive value of derivatives	10,515
TOTAL FINANCIAL ASSETS	**1,079,186**
D – Unsecured credit lines	**138,961**
TOTAL C + D	**1,218,147**
C+D-(A+B)	**737,530**

The group has a net credit position and has available liquidity to self-finance and does not have to use banks to finance its operations. Consequently, it has relatively limited exposure to the liquidity market tensions.

Credit risk

The group does not have significant credit risks, either in terms of its trading counterparties or its financing and investing activities. Its main customers are public entities or related to public bodies, mostly in the European, US and South-East Asia areas. Ansaldo STS group's typical customer rating is therefore medium-to-high. However, for contracts with customers/counterparties with which the group does not have regular trading transactions, solvency is analysed at the time the offer is placed, in order to identify future credit risks.

Given the nature of the group's customers, collection times are longer (and, in certain countries, significantly longer) than those typical of other businesses, leading to overdue amounts, which are sometimes considerable.
At 31 December 2016, third party trade receivables amounted to €666,476 thousand (31 December 2015: €604,606 thousand) and were overdue for €258,643 thousand, of which €169,495 thousand by more than 12 months.
At 31 December 2016, third party trade receivables mainly relate to the parent Ansaldo STS S.p.A. (€509,019 thousand), overdue for €216,433 thousand.

The following table gives a breakdown of receivables at 31 December 2016:

	Public bodies			Other customers			
31.12.2016 (€'000)	**Europe**	**Americas**	**Other**	**Europe**	**Americas**	**Other**	**Total**
- Retentions	40,320	7,222	7,049	20,681	3,326	950	79,548
- Not overdue	86,413	17,434	928	196,200	8,350	18,960	328,285
- Overdue by less than six months	22,814	2,767	658	30,459	5,138	5,645	67,481
- Overdue between 6 months and 1 year	7,572	390	311	12,791	54	549	21,667
- Overdue between one and five years	110,611	5,459	1,911	50,369	538	607	169,495
Total	**267,730**	**33,272**	**10,857**	**310,500**	**17,406**	**26,711**	**666,476**

The allowance for impairment changed as follows:

	31.12.2016	31.12.2015
1 January	**22,667**	**20,470**
Accruals	1,366	2,968
Releases/Utilisation	(28)	(776)
Other changes	2	5
31 December	**24,007**	**22,667**

During the year, the allowance for impairment rose by €1,340 thousand, mainly as a result of the amounts accrued by the parent Ansaldo STS S.p.A. for the collection risk of receivables for interest in arrears and late payment.

With respect to the credit risk arising from the positive value of derivatives, the counterparties of derivative contracts are mainly banks.
The table below breaks down the positive value of derivatives by the counterparty's rating class.

The ratings below are based on S&P's data.

Classe di Rating	**Positive fair value**
A	28.0%
A-	72.0%
Total positive fair value	**100.0%**

Classification and fair value of financial assets and liabilities

The tables below give a breakdown of the group's financial assets and liabilities by the measurement category set out in IAS 39.
Financial liabilities are all recognised using the amortised cost method, since the group did not use the fair value option.
Derivatives are analysed separately.

31.12.2016 (€'000)	**Fair value through profit or loss**	**Loans and receivables**	**Held to maturity**	**Total**	***Fair value***
Non-current assets					
Non-current related party loans and receivables	-	25,522	-	**25,522**	**25,522**
Financial assets measured at fair value through profit or loss	-	-	-	**-**	**-**
Loans and receivables	-	19,963	-	**19,963**	**19,963**
Current assets				**-**	
Current related party loans assets	-	62,376	-	**62,376**	**62,376**
Trade receivables	-	666,476	-	**666,476**	**666,476**
Financial assets measured at fair value through profit or loss	-	34,233	-	**34,233**	**34,233**

31.12.2016 (€'000)	**Fair value through profit or loss**	**Amortised cost**	**Held to maturity**	**Total**	***Fair value***
Current liabilities					
Current related party liabilities	-	19,671	-	**19,671**	**19,671**
Related party loans and borrowings	-	-	-	**-**	**-**
Trade payables	-	438,448	-	**438,448**	**438,448**
Loans and borrowings	-	1,780	-	**1,780**	**1,780**

31.12.2015 (€'000)	Fair value through profit or loss	Loans and receivables	Held to maturity	Total	*Fair Value*
Non-current assets					
Non-current related party loans and receivables	-	21,211	-	**21,211**	**21,211**
Financial assets measured at fair value through profit or loss	-	-	-	**-**	**-**
Loans and receivables	-	20,621	-	**20,621**	**20,621**
Current assets				**-**	
Current related party loans assets	-	58,952	-	**58,952**	**58,952**
Trade receivables	-	604,606	-	**604,606**	**604,606**
Financial assets measured at fair value through profit or loss	-	38,496	-	**38,496**	**38,496**

31.12.2015 (€'000)	Fair value through profit or loss	Amortised cost	Held to maturity	Total	*Fair Value*
Current liabilities					
Current related party liabilities	-	25,247	-	**25,247**	**25,247**
Related party loans and borrowings	-	2,500	-	**2,500**	**2,500**
Trade payables	-	390,726	-	**390,726**	**390,726**
Loans and borrowings	-	1,628	-	**1,628**	**1,628**

The carrying amount of short-term financial instruments, such as trade receivables and payables, represents a fair approximation of fair value.

Derivatives

IFRS require the classification of fair value of derivatives on the basis of reference parameters that can be inferred from the market or from other financial indicators (for example: exchange rates, interest rate curve, etc.). Financial derivatives on currencies to hedge the currency risk fall within Level 2 of the hierarchy since the fair value of these instruments is determined by recalculating the present value through official fixing of closing exchange and interest rates listed on the market.

The table below shows the fair values of financial instruments in portfolio.

Fair value hierarchy at the reporting date	***Fair value at* 31.12.2016** Level 2	*Fair value at* 31.12.2015 Level 2
Assets		
Currency forwards/swaps/options		
Trading	-	-
Fair value hedges	4,043	3,599
Cash flow hedges	6,472	1,768
Liabilities		
Currency forwards/swaps/options		
Trading	-	-
Fair value hedges	247	163
Cash flow hedges	16,761	14,449

The group uses cash flow hedges to hedge the currency risk of highly probable future transactions and fair value hedges to hedge the exposure to currency risk of recognised assets and liabilities.
With respect to derivatives hedging future cash inflows and outflows in currencies other than the functional currency, the table below shows the maturities of these cash flows, hedged in US dollars.

	31.12.2016		31.12.2015	
	Notional (USD'000)		Notional (USD'000)	
Maturity	**Collection**	**Payment**	Collection	Payment
Within one year	261,553	26,868	260,863	28,125
Between one and three years	8,627	3,458	71,857	3,899
Between three and nine years	-	-	-	-
After nine years	-	-	-	-
Total	**270,180**	**30,326**	**332,720**	**32,024**

19 Key managers' remuneration

Fees paid to those who have the power to plan, manage and control the group, including executive and non-executive directors, are as follows:

(€'000)	**2016**	2015
Directors' fees	5,549	4,161
Stock grants	180	247
Total	**5,729**	**4,408**

Fees paid to directors, key managers and the general manager amounted to €5,729 thousand in 2016 (2015: €4,408 thousand).
These amounts include fees and any other type of remuneration and social security sums due for the position of director, key manager or general manager in the parent or in other companies included in the consolidation scope, which represented a cost for the group.
Costs correlated with transactions with the company's strategic figures were incorporated in 2016. A one-off financial incentive was incorporated in 2015 for those persons holding certain key roles within the group, with a view to maintaining business continuity in light of the transfer of the controlling interest in the parent's share capital.
Fees include those paid to the members of the board of directors and the supervisory bodies.

Statutory auditors' fees pertaining to the parent amounted to €210 thousand in 2016 (2015: €210 thousand).

In order to implement an incentive and loyalty scheme for the group's employees and consultants, the parent has launched incentive plans which, upon reaching set vesting conditions, provide for the awarding of Ansaldo STS shares.

Shares were delivered in 2016 as the 2013 vesting conditions of the 2012-2013 plan have a three-year term. In addition, the shares for the 2016 vesting conditions as part of the 2014-2016 plan were accrued.

The following table gives a breakdown of the parent's directors', statutory auditors' and general managers' fees:

(in euros)

POSITION	POSITION						
Name and surname	Position	Date of appointment	End of term	Fees for the position held in the reporting company for 2016	Non-monetary benefits	Bonuses and other incentives	Other fees paid
Alistair Dormer	Chairperson of the BoD	13.05.2016	Approval of 2018 financial statements	75,000 (1)			
Alberto de Benedictis (b) (c)	(Deputy chairperson)	13.05.2016	Approval of 2018 financial statements	60,219 (2)			
Katrarine Rosalind Painter (a) (d)	Director	13.05.2016	Approval of 2018 financial statements	60,219 (3)			
Andrew Thomas Barr	Chief executive officer and general manager since 24.05.2016	24.05.2016	Approval of 2018 financial statements	48,387 (4)	9,175		194,917*
Mario Garraffo (b) (d)	Director	13.05.2016	Approval of 2018 financial statements	75,355 (5)			
Katherine Jane Mingay	Director and Deputy chairperson of the BoD until 28.10.2016	13.05.2016	Approval of 2018 financial statements	31,694 (6)			
Rosa Cipriotti	Director	13.05.2016	Approval of 2018 financial statements	31,694 (7)			
Fabio Labruna	Director	13.05.2016	Approval of 2018 financial statements	31,694 (7)			
Giuseppe Bivona	Director	13.05.2016	Approval of 2018 financial statements	31,694 (7)			
Karen Boswell	Director since 02.11.2015, holding the role of deputy chairperson since 25.11.2015	02.11.2015	Approval of 2017 financial statements	18,306 (8)			
Garaventa Nicoletta (e)	Chairperson of the supervisory body	06.05.2013	three-year term	25,000			
Quagli Alberto (f)	Member of the supervisory body	06.05.2013	three-year term	20,000			
Sarubbi Giacinto	Chairperson of the board of statutory auditors	15.04.2014	Approval of 2016 financial statements	75,000			15,000**
Spinardi Maria Enrica	Statutory auditor	15.04.2014	Approval of 2016 financial statements	50,000			10,000**
Righetti Renato	Statutory auditor	15.04.2014	Approval of 2016 financial statements	50,000			10,000**
Stefano Siragusa (g)	Chief executive officer and general manager until 13.05.2016	02.11.2015	Approval of 2017 financial statements	29,462 (9)	27,534		3,447,471***
Paola Giannotti (m)	Director in office until 13.05.2016	02.11.2015	Approval of 2017 financial statements	27,459 (10)			
Giulio Gallazzi (h)	Director in office until 13.05.2016	02.11.2015	Approval of 2017 financial statements	25,628 (11)			
Alessandra Piccinino (i)	Director in office until 13.05.2016	09.11.2015	Approval of 2017 financial statements	23,798 (12)			
Bruno Pavesi (i) (m)	Director in office until 13.05.2016	02.11.2015	Approval of 2017 financial statements	32,951 (13)			
Giovanni Cavallini (l)	Director in office until 13.05.2016	02.11.2015	Approval of 2017 financial statements	29,290 (14)			

* fixed remuneration of €194,917 for the position of general manager and other fees for 2016
** fees for positions on committees
*** fixed remuneration of €246,470 for the position of general manager and other fees for 2016 until 13/05/2016 and €3,201,001 for termination of the employment relationship.

(a) Chairperson of the appointments and remuneration committee
(b) Member of the appointments and remuneration committee
(c) Chairperson of the risk and control committee
(d) Member of the risk and control committee
(e) Chairperson of the supervisory body
(f) Member of the supervisory body
(g) Chief executive officer and general manager until 13/05/2016
(h) Chairperson of the appointments and remuneration committee until 13/05/2016
(i) Member of the appointments and remuneration committee until 13/05/2016
(l) Chairperson of the risk and control committee until 13/05/2016
(m) member of the risk and control committee until 13/05/2016

(1) chairperson of the BoD (in office since 13/05/2016 with a new mandate)
(2) in office since 13/05/2016 BoD - ARC - chair. RCC and from 28/10/2016 dep. chair. BoD
(3) in office since 13/05/2016 as member of BoD - RCC and chair. ARC
(4) since 24/05/2016 CEO
(5) in office since 02/11/2015 BoD and since 13/05/2016 RCC and ARC
(6) BoD and deputy chair. BoD from 13/05/2016 to 28/10/2016
(7) BoD since 13/05/2016
(8) in office BoD from 02/11/2015 to 13/05/2016 and dep. chair. BoD since 25/11/2015
(9) CEO and general manager until 13/05/2016
(10) BoD and RCC until 13/05/2016
(11) BoD - chair. ARC until 13/05/2016
(12) BoD and ARC until 13/05/2016
(13) BoD - ARC and RCC until 13/05/2016
(14) BoD - chair. RCC until 13/05/2016

In euros	Annual unit fees
Chairperson of the board of directors	75,000
Member of the board of directors	50,000
Chairperson of the supervisory body	25,000
Member of the supervisory body	20,000
Chairperson of the appointments and remuneration committee	20,000
Member of the appointments and remuneration committee	15,000
Chairperson of the risk and control committee	30,000
Member of the risk and control committee	25,000

20 Outlook

Growth in volumes is expected in 2017, while ROS should remain basically in line with the previous year.

21 Information pursuant to article 149-duodecies of CONSOB issuer Regulation

The following schedule was prepared in accordance with article 149-duodecies of Consob's Issuer regulation and shows the fees for 2016 for audit and non-audit services provided by the audit company or entities belonging to its network.
Please note that on January 19, 2017, followind to the resignation of Kpmg SpA, the Shareholders' meeting decided to appoint EY SpA as statutory auditor of the Company. Therefore, the services and fees presented below are only referred to the audit of the year-end separate and consolidated financial statements.

(€'000)	**Service provider**	**Beneficiary**	**2016 fees**
Audit	KPMG S.p.A.	Parent	55
	KPMG S.p.A.	Subsidiaries	50
	EY Sp.A.	Parent	136
	EY Sp.A.	Subsidiaries	318
Attestation services	KPMG S.p.A.	Parent	72
	KPMG S.p.A.	Subsidiaries	52
	EY Sp.A.	Parent	-
	EY Sp.A.	Subsidiaries	-
Tax consultancy services	KPMG S.p.A.	Parent	-
	KPMG S.p.A.	Subsidiaries	-
	EY Sp.A.	Parent	-
	EY Sp.A.	Subsidiaries	-
Other services	KPMG S.p.A.	Parent	10
	KPMG S.p.A.	Subsidiaries	32
	EY Sp.A.	Parent	40
	EY Sp.A.	Subsidiaries	-
			765

Milan, 27 February 2017

On behalf of the board of directors
The Chairperson

Alistair Dormer

22 Statement on the consolidated financial statements pursuant to article 81-ter of CONSOB Regulation no. 11971 of 14 May 1999 and subsequent amendments and integrations and article 154-*bis*.2 of Legislative Decree no. 58 of 24 February 1998 and subsequent amendments and integrations

1. The undersigned, Andrew Thomas Barr, as CEO and general manager, and Roberto Carassai as manager in charge of financial reporting for Ansaldo STS S.p.A., also considering the provisions of article 154-bis.3/4 of Italian Legislative decree no. 58 of 24 February 1998 and subsequent amendments and integrations, state that the administrative and accounting procedures used to draft the separate financial statements at 31 December 2016:
   - are appropriate in relation to the nature of the business and
   - have been effectively applied.
2. There is nothing to report in this regard.
3. Moreover:

   3.1 the consolidated financial statements:

   a) are drafted in compliance with the IFRS endorsed by the European Community, pursuant to EC regulation no. 1606/2002 issued by the European Parliament and Council on 19 July 2002;

   b) are consistent with the accounting ledgers and accounting entries;

   c) give a true and fair view of the issuer's financial position and results of operations and the companies included in the consolidation scope.

   3.2. The directors' report provides a reliable analysis of the important events taking place in the year and the financial position and results of operations of the issuer and the companies included in the consolidation scope, together with a description of the key risks and uncertainties to which they are exposed.

Milan, 27 February 2017

Signature of the CEO and general manager	Signature of the Manager in charge of financial reporting
Andrew Thomas Barr	**Roberto Carassai**

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Independent auditor's report

in accordance with articles 14 and 16 of Legislative Decree n. 39, dated 27 January 2010

(Translation from the original Italian text)

To the Shareholders of
Ansaldo STS S.p.A.

Report on the consolidated financial statements

We have audited the accompanying consolidated financial statements of Ansaldo STS Group, which comprise the consolidated statement of financial position as at December 31, 2016, the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

Directors' responsibility for the consolidated financial statements

The Directors of Ansaldo STS S.p.A. are responsible for the preparation of these consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the European Union as well as with the regulations issued to implement art. 9 of Legislative Decree n. 38, dated 28 February 2005.

Auditor's responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing (ISA Italia) implemented in accordance with article 11 of Legislative Decree n. 39, dated 27 January 2010. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's professional judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of the consolidated financial statements that give a true and fair view in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by Directors, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements give a true and fair view of the financial position of Group Ansaldo STS as at December 31, 2016, and of its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union and with article 9 of Legislative Decree n. 38, dated 28 February 2005.

Other matters

The consolidated financial statements of Group Ansaldo STS for the year ended 31 December 2015 were audited by another auditor who expressed an unmodified opinion on those statements on 17 March 2016.

Report on other legal and regulatory requirements

Opinion on the consistency of the Report on Operations and of specific information of the Report on Corporate Governance and the Company's Ownership Structure with the consolidated financial statements

We have performed the procedures required under audit standard SA Italia n. 720B in order to express an opinion, as required by law, on the consistency of the Report on Operations and of specific information of the Report on Corporate Governance and the Company's Ownership Structure as provided for by article 123-bis, paragraph 4 of Legislative Decree n. 58, dated 24 February 1998, with the consolidated financial statements. The Directors of Ansaldo STS S.p.A. are responsible for the preparation of the Report on Operations and of the Report on Corporate Governance and the Company's Ownership Structure in accordance with the applicable laws and regulations. In our opinion the Report on Operations and the specific information of the Report on Corporate Governance and the Company's Ownership Structure are consistent with the consolidated financial statements of Ansaldo STS Group as at December 31, 2016.

Genoa, March 27, 2017
EY S.p.A.
Signed by: Enrico Lenzi, Partner

This report has been translated into the English language solely for the convenience of international readers.

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