2017 Annual Report
Ansaldo STS Group

Ansaldo STS A Hitachi Group Company

2017 Annual Report
Ansaldo STS Group

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

Contents

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 2017 - 2019 three-year period)

ANTONIO ZECCA
Chairperson

GIOVANNI NACCARATO

ALESSANDRA STABILINI

SUBSTITUTE STATUTORY AUDITORS
(for the 2017 - 2019 three-year period)

VALERIA GALARDI

CRISTIANO PROSERPIO

ALESSANDRO SPERANZA

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 2017

2 Financial position and results of operations of the Group

2.1 Introduction

Ansaldo STS group recognised a profit of €64.9 million for 2017 (€77.9 million in 2016), revenue of €1,361.0 million (€1,327.4 million in 2016), ROS of 7.4% (9.6% in 2016) and a positive net financial position of €357.5 million (€338.0 in 2016).

The uncertain international context, reference market developments in which competition is changing greatly and customer demands are increasingly stringent, in addition to special events that the company has had to face, make the group results significant and down to the professionalism and quality of your company's human resources.

The economic and financial results achieved by the Group were affected in 2017, as in 2016, by an unexpected event, in particular with reference to the Swedish project where the customer, contesting a non-fulfillment of the Red line project by the Ansaldo STS Swedish subsidiary, has unilaterally terminated the contract asking for the repayment of the advance paid to Ansaldo and the payment of the penalties and damages. The Company, contesting such behavior, signed an agreement related to the advance repayment plus interests against the release of the bonds previously issued to the customer. In the meantime, the Company is considering all the possible way to safeguard its right and to the recognition of work performed.

New orders for the 2017, increasing the Order Backlog (please refer to Note 2.4 "Non-Gaap Alternative Performance Indicators and other indicators" for the definition of Order Backlog) totaled 1.500,8 M€ (1,475,8 M€ in 2016); in particular we highlight the acquisition of some Italian projects such as high speed line Verona – Padova through the Consortium Iricav 2 entitled of the related concession, following the approval by the CIPE for the first operational step of the project and, in US, the supply of the communication and control system (Communication Based Train Control – CBTC) for Baltimore Metro Subway Link.

The operating performance can essentially be said to be positive. Important milestones were reached during the year on numerous projects in Europe (Italy, France and Denmark) and in the rest of the world (India, China, Australia, America) (see note 2.4 *Non-Gaap Alternative Performance Indicators and other indicators* for the definition of Operating profit - EBIT, the operating performance indicator).

Within the group, management launched specific action plans to improve operating efficiency and effectiveness.
In addition, with a view to pursuing improved efficiency, note the decision to close the companies Ansaldo STS Do Brasil Sistemas de Transporte Ferroviario e Metropolitano LTDA and Ansaldo STS Southern Africa Pty Ltd, thereby reducing the scope of consolidation of the group.

2.2 Key performance indicators

(€'000)	31.12.2017	31.12.2016	Change
New orders	1,500,823	1,475,836	24,987
Order backlog	6,457,458	6,488,378	(30,920)
Revenue	1,360,967	1,327,386	33,581
Operating profit (EBIT)	100,827	126,801	(25,974)
Profit for the year	64,868	77,903	(13,035)
Net working capital	127,168	120,532	6,636
Net invested capital	371,458	369,807	1,651
Net financial position	(357,535)	(338,039)	(19,496)
Free operating cash flow	30,570	37,944	(7,374)
ROS	7.4%	9.6%	-2.2 p.p.
ROE	9.0%	11.4%	-2.4 p.p.
EVA	34,002	57,861	(23,859)
Research and development	41,344	36,688	4,656
Headcount (no.)	4,228	3,951	277

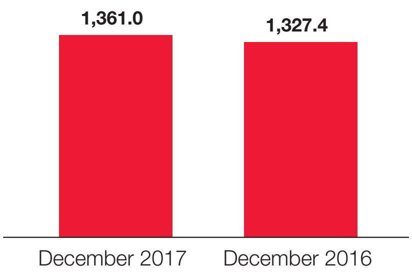
Orders in 2017 totalled €1,500.8 million compared to €1,475.8 million for 2016; the order backlog amounted to €6,457.5 million (€6,488.4 million in 2016).

Revenue amounted to €1,361.0 million, up €33.6 million with respect to €1,327.4 million in 2016; the increase is due to the more advanced stage of projects in the Americas and the Middle East, only partially offset by the decrease as a result of reaching the final stages of certain major contracts in the Asia Pacific area and in Italy.

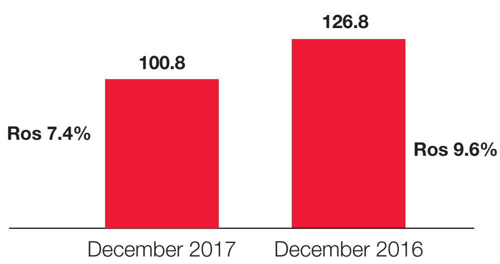
Operating profit (EBIT) came to €100.8 million, down €26.0 million on the previous year (€126.8 million); ROS was 7.4% (9.6% in 2016).

The profit for the year totalled €64.9 million (€77.9 million for 2016).
The group's net financial position came to -€357.5 million, up €19.5 million on the equally positive -€338.0 million at 31 December 2016.
Research and development expense recognised directly in profit or loss amounted to €41.3 million, up from the previous year (€36.7 million).
The group's headcount came to 4,228 employees compared to 3,951 at 31 December 2016. The average headcount was 4,081 (3,828 in 2016).

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.

Consolidated Income statement (€'000)

	31.12.2017	31.12.2016
Revenue	**1,360,967**	**1,327,386**
Purchases and personnel expense (*)	(1,247,217)	(1,182,421)
Amortisation, depreciation and impairment losses	(19,010)	(18,325)
Other net operating income (**)	5,822	674
Change in work-in-progress, semi-finished products and finished goods	265	(513)
Operating profit (EBIT)	**100,827**	**126,801**
Net financial expense	(1,750)	(10,152)
Income taxes	(34,209)	(38,746)
Profit (loss) from discontinued operations	-	-
Profit for the year	**64,868**	**77,903**
attributable to the owners of the parent	*64,975*	*77,968*
attributable to non-controlling interests	*(107)*	*(65)*
Earnings per share		
Basic and diluted	*0.32*	*0.39*

Reconciliation between the reclassified income statement and the income statement included in the consolidated financial statements:
(*) Includes the captions "Purchases", "Services", "Personnel expense" 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 accrual to (use of) the provision for expected losses to complete contracts).

Briefly:
Operating profit was down €26.0 million compared to the previous year. It was penalised by amounts set aside for developments in Northern Europe (€35.2 million), whereas in the previous year it included provisions for a lower cumulative total, relating to the outcome of the arbitration case in Libya (€8.1 million) and the departure of certain strategic personnel from the group (€2.4 million). The effect of the higher production volumes was offset by the increase in Research & Development and Marketing & Sales activities.
The overall improvement of financial expense and income derived primarily from the conclusion in 2016 of the 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 (€13.0 million).

Consolidated Statement of financial position (€'000)

	31.12.2017	31.12.2016
Non-current assets	305,070	310,406
Non-current liabilities	(60,780)	(61,131)
	244,290	**249,275**
Inventories	110,995	125,067
Contract work in progress	379,590	358,865
Trade receivables	736,664	728,852
Trade payables	(413,639)	(458,119)
Progress payments and advances from customers	(683,036)	(598,012)
Working capital	**130,574**	**156,653**
Provisions for risks and charges	(15,967)	(14,040)
Other assets (liabilities), net (*)	12,561	(22,081)
Net working capital	**127,168**	**120,532**
Net invested capital	**371,458**	**369,807**
Equity attributable to the owners of the parent	728,892	707,626
Equity attributable to non-controlling interests	101	220
Equity	**728,993**	**707,846**
Non-current assets held for sale	-	-
Net financial position	**(357,535)**	**(338,039)**

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

Net invested capital amounted to €371.5 million compared to €369.8 million for the previous year.
The modest €1.7 million increase is essentially due to the increase in other net assets and liabilities, offset by the reduction in working capital and net non-current assets and liabilities. In particular, the former rose by €34.6 million as a result of higher direct tax assets and the decrease in fair value of derivative liabilities.
Net working capital totalled €127.2 million compared to the final figure of €120.5 million for 2016. Working capital stood at €130.6 million, down €26.1 million on the €156.7 million of the previous year. The decrease is largely due to the reduction in total inventories (note the change in advances from customers), only partially offset by the decrease in trade payables.

2.3 Net financial position

(€'000)	**31.12.2017**	31.12.2016
Current loans and borrowings	424	1,780
Medium/long-term loans and borrowings	-	-
Cash and cash equivalents	(327,326)	(305,586)
BANK LOANS AND BORROWINGS	**(326,902)**	**(303,806)**
Related party loan assets	(232)	(267)
Other loan assets	(30,401)	(33,966)
LOAN ASSETS	**(30,633)**	**(34,233)**
Related party loans and borrowings	-	-
Other current loans and borrowings	-	-
Other medium/long-term loans and borrowings	-	-
OTHER LOANS AND BORROWINGS	**-**	**-**
NET FINANCIAL POSITION	**(357,535)**	**(338,039)**

The net financial position (showing greater loan assets and cash and cash equivalents than loans and borrowings) was €357.5 million, up on the €338.0 million at 31 December 2016. No dividends were distributed during the year (€36.0 million in 2016).
Loan assets include the euro equivalent amount of the Libyan dinar advance received in Libya and deposited in a local bank pending the resumption of activities (€28.4 million).

In October 2017, in relation to the contract assigned by AB Storstockholms Lokaltrafik ("SL") for updating of the signalling system on the "Metro System Red Line" in Stockholm, following a request from SL the company refunded part of the advances collected in previous years for around €34.5 million, plus VAT (€8.6 million, later recovered) and interest (€2.1 million).
To complete the information, note that in January 2018, in line with the agreement signed with SL in December, the remaining advances were refunded for approximately € 23.5 million, plus VAT (€5.9 million) and interest (€1.7 million).
Of note in 2016 was the reimbursement of the advance to the customer Russo as a result of conclusion of the arbitration proceedings on the Libya project for a total of €37.4 million.

The consolidated statement of cash flows for 2017 follows:

(€'000)	**31.12.2017**	31.12.2016
Opening cash and cash equivalents	**305,586**	**304,306**
Profit of the year	64,868	77,903
Share of profits (losses) of equity-accounted investees	(5,798)	(4,345)
Income taxes	34,209	38,746
Italian post-employment and other employee benefits	932	787
Stock grant plans	1,621	4,731
Net gains on the sale of assets	160	71
Net financial income	7,558	14,497
Amortisation, depreciation and impairment losses	19,010	18,325
Accruals to/reversals of provisions for risks	4,212	4,814
Other operating income/expense	(20,205)	3,118
Write-downs/reversals of write-downs of inventories and work in progress	27,306	(4,498)
Gross cash flows from operating activities	**133,873**	**154,149**
Changes in other operating assets and liabilities	(38,178)	(17,275)
Funds from operations	**95,695**	**136,874**
Changes in working capital	(45,569)	(83,152)
Cash flows generated from operating activities	**50,126**	**53,722**
Cash flows used in ordinary investing activities	(19,556)	(15,778)
Free Operating Cash Flow	**30,570**	**37,944**
Strategic transactions	(3,128)	(2,100)
Other changes in investing activities	3,840	3,205
Cash flows used in investing activities	**(18,844)**	**(14,673)**
Dividends paid	-	(36,000)
Cash flows used in financing activities	(1,596)	(1,290)
Cash flows used in financing activities	**(1,596)**	**(37,290)**
Net exchange rate losses	**(7,946)**	**(479)**
Closing cash and cash equivalents	**327,326**	**305,586**

Cash and cash equivalents equalled €327.3 million at the reporting date, up by €21.7 million over the prior year figure. The main changes in the statement of cash flows were as follows:

- cash flows from operating activities totalled €50.1 million, down by €3.6 million from 2016. Overall, the lower change in working capital (-€45.6 million in 2017 compared to -€83.2 million in 2016) was offset by the stronger change in other operating assets and liabilities (-€38.2 million in 2017 compared to -€17.3 million in 2016);
- cash flows used in investing activities amounted to €18.8 million, up €4.1 million over the previous year (2016: €14.7 thousand used);
- cash flows used in financing activities came to €1.6 million compared to cash flows used in financing activities of €37.3 million in 2016. The change is the result of the dividend distribution by the parent Ansaldo STS S.p.A. for €36.0 million in 2016.

The free operating cash flows (FOCF) used before strategic transactions of the year totalled €30.6 million compared to €37.9 million for 2016, a decrease of €7.3 million.

2.4 Non-GAAP alternative performance indicators and other indicators

Non-GAAP alternative performance indicators

Ansaldo STS's management assesses the performance of the group using certain indicators that are not defined by the IFRS endorsed by the EU. As required by CESR communication 05 - 178b and considering the guidelines of the ESMA communication of 30 June 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".
- **Free Operating Cash Flow (FOCF):** the sum of cash flows generated from (used in) operating activities and cash flows generated from (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 reclassified statement of cash flows in the "Net financial position" section.
- **Funds From Operations (FFO):** the cash flows generated from (used in) operating activities, net of changes in working capital. The method used to calculate the FFO for the current and previous years is shown in the reclassified statement of cash flows in the "Net financial position" section.
- **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:** includes 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 ultimate parent, associates, joint ventures, consortia and unconsolidated subsidiaries.
During the year, no atypical and/or unusual transactions took place[1].

Related party transactions (see notes 14 and 15 to the consolidated financial statements for greater detail) are as follows at 31 December 2017 and 2016.

31.12.2017 (€'000)	**Ultimate parent**	**Unconsolidated subsidiaries**	**Associates**	**Joint ventures**	**Consortia (*)**	**Other group companies**	**Total**
Non-current financial assets							
- loans and borrowings	-	-	-	-	-	-	**-**
- other financial liabilities	-	-	25,445	-	182	-	**25,627**
Current financial assets							
- loans and borrowings	-	-	232	-	-	-	**232**
- trade payables	114	341	8,551	-	41,399	4,803	**55,208**
- other financial liabilities	17	-	-	-	4	-	**21**
Non-current financial liabilities							
- loans and borrowings	-	-	-	-	-	-	**-**
- other financial liabilities	-	-	-	-	-	-	**-**
Current financial liabilities							
- loans and borrowings	-	-	-	-	-	-	**-**
- trade payables	51	291	7,082	-	2,083	20,366	**29,873**
- other financial liabilities	-	3	370	-	37	-	**410**

31.12.2017 (€'000)	**Ultimate parent**	**Unconsolidated subsidiaries**	**Associates**	**Joint ventures**	**Consortia (*)**	**Other group companies**	**Total**
Revenue	846	1,049	8,362	9,850	45,141	12,442	**77,690**
Other operating income	-	14	1,345	-	129	-	**1,488**
Costs	512	847	52,718	9	2,701	32,704	**89,491**
Financial income	-	-	10	-	-	-	**10**
Financial expense	-	-	-	-	-	-	**-**
Other operating expense	-	-	-	-	-	-	**-**

(*) 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.

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

31.12.2016 (€'000)	Ultimate parent	Unconsolidated subsidiaries	Associates	Joint ventures	Consortia (*)	Other group companies	Total
Non-current financial assets							
- loans and borrowings	-	-	-	-	-	-	**-**
- other financial liabilities	-	-	25,068	-	454	-	**25,522**
Current financial assets							
- loans and borrowings	-	-	267	-	-	-	**267**
- trade payables	468	331	4,075	2,246	48,916	6,340	**62,376**
- other financial liabilities	-	-	-	-	4	-	**4**
Non-current financial liabilities							
- loans and borrowings	-	-	-	-	-	-	**-**
- other financial liabilities	-	-	-	-	-	-	**-**
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.

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 2017 approximated €1,501 million (2016: €1,476 million).

The key events of the reporting period are described by geographical segment below:

ITALY

The orders acquired during the period amount to roughly €762 million. In the railway sector these mainly relate to the project for the high speed Verona-Vicenza line as part of the IRICAV DUE consortium for around €336 million, the framework agreement with RFI for technical support and maintenance of the Ansaldo STS systems operating on the RFI network (€100 million), the contract signed with Hitachi Rail Italy for the supply of on-board devices on Caravaggio trains (€63 million) and the supply to RFI of ACC and ACC-M signalling systems (€40 million).
As regards the Mass Transit sector, note the variations to Line 6 of the Naples metro (€24 million) and to the Alifana Line (€16 million).

REST OF EUROPE

New orders amounted to roughly €210 million, mainly in France (€65 million) and Denmark (€85 million).
In France, note in particular the contract with Vossloh relating to the supply of TVM 430 on-board devices for a total of around €14 million.
In Denmark, the orders refer mainly to the southern extension of the Cityringen in Copenhagen for approximately €60 million, plus other agreed variations - including Operation&Maintenance - for a total of €82 million.

Note the approximate €16 million in Spain, mainly relating to the maintenance contract for the high speed Madrid-Lleida line for €14 million.
Lastly, note the €20 million in Turkey relating to the Ankara Metro Depot and interconnection of lines M1-M4, as well as variations to the Mersin-Toprakkale line.

NORTH AFRICA AND THE MIDDLE EAST

The orders in this area amount to around €29 million, mainly relating to the variations on contracts for line 3 of the Riyadh metro (€19 million) and for the maintenance of the Princess Noura University line (€5 million).

AMERICAS

The orders acquired during the period amount to roughly €322 million. Of these, about €56 million refer to the sale of components, maintenance and modernisation for freight lines.
The main contract is that for the Baltimore metro, for the replacement of track circuits with CBTC units both wayside and on 90 trains for around €133 million.
Other contracts were signed with MNRR (Metro North Railroad) for resignalling of the Stamford-New Haven line for roughly €22 million, with LIRR (Long Island Rail Road) for the supply of on-board and wayside equipment signed at the Jamaica station for around €10 million, and with MBTA (Massachusetts Bay Transportation Authority) for approximately €11 million.
Also note the contract signed with LACMTA for the western extension of the Los Angeles metro (Westside Extension section 2) valued at around €21 million.
Lastly, note the variations relating to the Honolulu metro for about €10 million.

ASIA PACIFIC

New orders for the reporting period come to approximately €178 million, including roughly €102 million acquired in Australia and mainly relating to variations to mining and freight transport railway lines (Rio Tinto) for roughly €55 million as well as the contract signed with Hyundai Rotem for the supply of on-board ETCS L.2 equipment for around €20 million.
For the Far East, note around €9 million in South Korea relating to the contract with Rotem for the supply of on-board devices and approximately €9 million finalised in Malaysia (MNDT Claim for proprietary technologies).
Lastly, note the contract signed in India with Hitachi Ltd relating to DFCC (Dedicated Freight Corridor Corporation) for around €6 million.

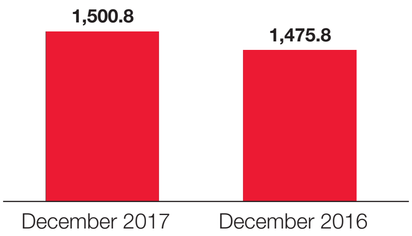
2.6.2 Sales information

New orders for the year totalled €1,500.8 million compared to €1,475.8 million in 2016.

Key orders acquired in 2017 are as follows:

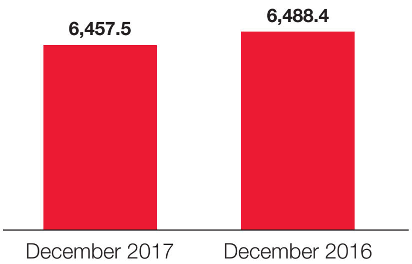
Country	Project	Customer	Amount (€m)
Italy	Verona-Padua high speed	IRICAV DUE consortium	336
USA	Baltimore metro	MTA	133
Italy	RFI framework agreement	RFI	100
Denmark	Copenhagen Cityringen change orders (includes O&M)	Metroselskabet	82
Italy	On-board devices for Caravaggio trains	Hitachi Rail Italy	63
Australia	Rio Tinto change orders	Rio Tinto	48
Italy	ACC and ACC-M signalling systems	RFI	40
Italy	Naples metro Line 6 - change orders	Naples municipality	24
USA	New Haven signalling systems	MNRR	22
USA	Los Angeles – Westside extension – section 2	LACMTA	21
Australia	On-board devices	Rotem	20
Various EU / Asia	Components	Various	82
Various EU / Asia	Service & Maintenance	Various	58
USA	Components	Various	56

New orders for 2017 - 2016 (€m)



The order backlog at 31 December 2017 amounted to €6,457.5 million compared to €6,488.4 million at 31 December 2016. Note that the total value of the order backlog includes €427.3 million relating to the Libya project, still suspended due to the socio-political situation in the country, and around €31 million, gross of prudent accruals, relating to the Red Line project in Sweden, also suspended following a contractual dispute arising with the customer during the year, for which reference should be made to the "Business Performance" section for further details.

Order backlog at 31 December 2017 - 2016 (€m)



2.6.3 Business performance

Revenue for the year totalled €1,361 million (€1,327 million at 31 December 2016).

The key events of the reporting period are described by geographical segment below:

ITALY

RAILWAYS:

Production mainly related to the project for the technological upgrade of the Turin-Padua line, for which phases 3.2.1, 1.4 and 1.2.2 were activated as scheduled.
As part of the ACCM Genoa projects (Multistation Central Automated Systems), January saw the inauguration of the new SCCM (Multistation Command and Control System) Control Room in Teglia, and in March and July activation phases 2B and 2C for the Voltri area were completed.
As regards the Florence-Rome direct line project, the design and procurement activities have progressed.
As part of the Ventimiglia ACC projects, December saw the activation of phase 1B relating to the ACC systems in Ventimiglia and Bordighera.

MAINTENANCE & SERVICE AND SPARE PARTS:

Activities in the component area mainly involved the supply of spare parts to RFI (for the conventional and high-speed networks), the production of circuit boards for Hitachi Rail Italy S.p.A. and component supplies.
The service activities mainly related to contracts with RFI, as well as technical system support provided under the services outsourcing contract with FS (the Italian railways).

NAPLES METRO LINE 6:

Civil works and system installations on the Mergellina-Municipio line continued on schedule. The Municipality of Naples approved the variation projects for completion of the interim stations of Arco Mirelli and Chiaia and therefore civil works could recommence.

ROME METRO LINE C:
Excavation works for construction of the T3 line (from San Giovanni to Fori Imperiali) are progressing slowly due to archaeological findings, whilst rollout activities have continued for the San Giovanni station. In particular, integration testing was completed in December and pre-startup activities have commenced.
The economic/financial disputes of Metro C with the customer are still under way and there were no significant updates during the year.

MILAN METRO LINE 5:
The project relating to Milan metro line 5 has been completed, the entire line is operating and the management is currently focused on the guarantee phase. Delays are reported in obtaining the testing certificates due to alleged system performance-related problems that are currently being resolved with the customer.

MILAN METRO LINE 4:
Engineering and procurement activities continued during the period. Initial access to the line was granted and installation activities began in the Expo section.
A new works schedule is awaiting approval and envisages partial opening of the line and overall extension of the contract timing.

GENOA METRO:
At the end of February the Dinegro depot was completed on schedule and delivered to the customer. The vehicle rollout activities continue: the last train has been delivered and is currently at pre-startup stage.

ALIFANA:
The ongoing dispute between the Concessionaires Consortia of works involving the Company and the customer Metro Campania Nord Est ended in February 2017 with the parties signing of a settlement agreement, after which Metro Campania Nord Est deposited its first payments and scheduled the next. Lastly, note the opening of work sites at the Scampia station.

REST OF EUROPE

TURKEY:
With reference to the Mersin-Toprakkale project, the Multistation 11 and related CTC went into operation and the preliminary documentation for rollout of the ETCS Level 1 system for Multistations 01 to 05 was released.
In relation to the Ankara metro, Line 3 (M3, in March) and Line 4 (M4, in October) went into operation with the CBTC system, whilst work continues to reach similar goals on the other lines.
As regards the Gebze Kosekoy project, the line has been operational since April 2017 and an agreement is being formalised with the customer for settlement of the variations and of claims arising in relation to the project.

GREECE:
With reference to the project to construct the Thessaloniki metro, design and procurement activities continue in relation to the technological systems and installation work has begun.
Extension of the project timing was made formal in 2017, now envisaging works completion by the end of 2020. The arbitration proceedings can be said to be nearing conclusion.

DENMARK:
Planning work on the Copenhagen Cityringen metro line continued in Denmark.
As regards construction of the tramway in Aarhus, the urban section of the line went into operation in December whilst installation activities and testing continue on the suburban sections.

SWEDEN:
As regards the Red Line project for the Stockholm metro, June saw the completion of the installation activities on the first functional section (the Trial Line) using the CBTC system.
However, in the last quarter of the year the customer first requested reimbursement of part of the advances paid on the project due to failure to reach an agreement on the installation scheduling with variations. As requested by the customer, the company refunded part of the advances previously collected for about €34 million (plus VAT and interest).
The customer later served notice of cancellation of the contract, requesting reimbursement of the remaining advances plus compensation for damages.

The company challenged both the unilateral termination of the contract and the request for reimbursement of the advances and compensation for damages, considering them unfounded. An agreement was signed envisaging, on the one hand, reimbursement of the residual advances received (about €24 million plus VAT and interest), but on the other hand the return of all bonds previously released by the customer.
Reference should be made to the “Litigation” section for further details.
Note that at 31 December 2017 the Red Line project as a whole had gross work in progress for €98 million and an allowance for impairment of around €35 million allocated following assessment of the risk deriving from the existing contractual termination dispute. It should be remembered that, in October, the customer’s request was met as regards the reimbursement of advances for around €34 million (plus VAT and interest) and, as per the settlement agreement signed at the end of December, arrangements were made in January 2018 to refund the remaining €24 million in advances collected in previous years (plus VAT and interest) against the customer’s return of the bonds previously given.

FRANCE:
Two major high speed projects became operational at the beginning of July: BPL (Bretagne Pays de Loire) and SEA (Sud Europe Atlantique).
March saw the service start-up of the Interlocking SEI-NG system at Gare de Lyon. In addition, in February the pre-inauguration was held for the high-speed Tours-Bordeaux line. The new line opened to the public will allow Bordeaux to be reached from Paris in just 2 hours (the journey currently takes 3.5 hours).

GREAT BRITAIN:
In the UK, design and procurement activities for the technological systems relating to the Glasgow metro continue, despite delays in the works schedule.
As regards the technological upgrading of the signalling system on the Ferriby-Gilberdyke railway line, the design and procurement activities are in line with the updated works schedule.

BELGIUM:
In Belgium, design and procurement activities for technological systems relating to the resignalling project for lines 1 to 5 of the Brussels metro continue, despite delays in the works schedule.

AMERICAS

USA:
In Hawaii, activities for the construction of the Honolulu metro have progressed in terms of design and production activities and mobilisation of the construction team. Furthermore, dynamic testing began in October. Delays are reported in completing the civil works.
As regards the MBTA PTCS (Positive Train Control System) project in Boston, installation activities are in progress. Note that technical, contractual and customer relations critical issues have arisen for which the company is preparing suitable remedial action.
With regard to the technical upgrading of the signalling system on the Media Sharon Hill line in Philadelphia, design and materials procurement activities continue despite delays in the works schedule.

PERÙ:
The phase 1A design has been approved and the design for phase 1B for the construction of Lines 2 and 4 of the Lima metro is now pending approval; in the meantime, the civil works are still affected by the delays caused by the difficulties in acquiring the areas to be expropriated and consequently also having an impact on works covered by the scope of Ansaldo STS work. In this respect, note that depot works have commenced at 3 stations, with around 5km of tunnel completed. In addition, 20 trains and various materials and machines relating to the railway works have been produced and shipped to the location.
Arbitration proceedings have been requested through the ICSID (International Center for Settlement of Investment Disputes) in Washington by the concession holder against the contracting party, with a view to obtaining recognition of expense relating to these delays and to changes in the construction sequence, as well as works not included in the technical bid.

NORTH AFRICA AND THE MIDDLE EAST

SAUDI ARABIA:
In Saudi Arabia, activities continue on the Riyadh Metro Line 3 and installation activities in the functional section have commenced. The integration tests conducted in Canada for the Ansaldo STS on-board system installed on the vehicle manufactured by Bombardier were completed with satisfactory results.
Also note the delay in assigning the O&M contract for the Riyadh PNU, pending which a temporary extension to the current maintenance contract has been defined.
In a consortium with other partners, Ansaldo STS is competing in the tender for the management and maintenance of the Riyadh metro.

LIBYA:
The local railway project is still on hold and it is difficult to say when activities will resume.

MOROCCO:
In Morocco, activities continue on the high speed project for the Kenitra-Tangier line.
The railway traffic control system at Tangier station became operational in December.

ASIA - ASIA PACIFIC

TAIWAN:
Activities continued for the construction of the Taipei Metro Circular Line. The delays accumulated by the entities responsible for the civil works have heavily impacted the metro construction times, and this postponement is currently under discussion with the customer. The installation activities have continued, of note among which is completion of the activities relating to the power supply for substation 1 and the depot.
Again in Taipei, engineering and procurement activities are in progress in relation to the new contract for building the new San-Ying metro line, acquired in the first half of 2016.

CHINA:
Upgrading of the CBTC lines continues with the installation of the new software version, improved in terms of performance compared to that currently installed. Note that Line 10 of the Chengdu metro became operational in September.

INDIA:
With regard to the Calcutta metro, an agreement has been finalised with the customer for a variation in the scope of work (from DTG technology to CBTC). The design and production activities continue according to schedule.
The executive design and production activities are instead nearing completion for the Noida metro project.
Lastly, the executive design for the project relating to Line 1 of the Navi Mumbai metro has been completed and is pending approval by the customer. Materials procurement and site delivery are, however, in progress.

MALAYSIA:
In Malaysia, the BBAS JV consortium has reached a positive conclusion to the dispute with the customer MGJV. With regard to this agreement, ASTS has successfully completed its negotiations relating to claims for extra time and higher costs incurred for the MNDT contract.
Lastly, design activities continue for the project relating to the Klang Valley Double Track (KVDT).

AUSTRALIA:
In Australia, production as focused mainly on the AutoHaul project, part of the Framework Agreement with Rio Tinto (RAFA), in which testing of the first fully independent heavy goods transportation has been carried out and the software upgrading and installation on the locomotives and line testing of the system continued.
Project completion is at present expected in the second half of 2018.
As regards the Roy Hill project, all system functions have been released, the warranty period has commenced and negotiations have been completed with the customer in relation to claims for the higher costs incurred.
In Queensland, rollout activities have been completed on the Moreton Bay Rail Link and QR Stabling Yard projects.

2.7 Reconciliation between the profit for the year and equity of the parent and the group at 31 December 2017

(€'000)	Equity	of which: Profit for the year
Parent's equity at 31 December 2017 and profit for the year then ended	**532,191**	**71,988**
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	136,554	30,873
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	5,787	(304)
Goodwill	34,569	-
Consolidation adjustments for:		
- Dividends from consolidated companies	-	(36,532)
- Net exchange rate gains or losses	12,177	
- Impairment losses (reversals) on consolidated companies and loan assets of subsidiaries	7,614	(1,050)
Total attributable to the owners of the parent	**728,892**	**64,975**
- Non-controlling interests	101	(107)
Total equity at 31 December 2017 and profit for the year then ended	**728,993**	**64,868**

3 Key events of and after the reporting period

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.

On 27 February, the Board appointed ad interim, with effect from 1 March 2017, Renato Gallo as Chief Financial Officer of the Company and, with opinion in favour from the Board of Statutory Auditors, as Manager in charge of financial reporting pursuant to art. 154-bis of Italian Legislative Decree no. 58/1998, to replace Roberto Carassai.
On 28 March, the Company confirmed the appointment of Renato Gallo as Chief Financial Officer of Ansaldo STS. Renato Gallo has already covered important offices within the Company and in recent years was Deputy CFO and Senior Vice President Management & Statutory Reporting.

On 24 February the company presented ERSAT and ERSAT EAV: the satellite technology applied for the first time in Europe to rail traffic management. The first European test was completed with a trial journey from Cagliari to Decimomannu.
ERSAT is the latest-generation signalling project, which - for the first time in Europe - interfaces and integrates the European rail traffic management system (ERTMS) with Galileo satellite navigation and location technology.
The ERSAT EAV Project, presented jointly with Rete Ferroviaria Italiana and Trenitalia in Sardinia, is included in the European research programme Horizon 2020 and forms part of the ERSAT project.
Launched under Ansaldo STS coordination, the main purpose of the project is to define and test development of the ERTMS signalling system through train convoy location based on satellite technology.
The satellite technologies are designed to safely control and manage rail traffic on the conventional secondary lines, local and regional.
Andy Barr, the CEO of Ansaldo STS, remarked: "The rail signalling market, the core business of Ansaldo STS, calls for increasingly innovative, reliable and competitive solutions in terms of savings in costs, time and energy, in addition to safety and environmental impact. We are particularly proud to be testing this innovative technology today, for which many statements of interest have already been received from infrastructure managers and rail operators in Italy and in Europe due to the numerous benefits of this system".
The technology uses the results from the previous 3InSat Project, financed by the European Space Agency (ESA) with support from the Italian Space Agency (ASI).
ERSAT EAV locates the trains via satellite and interfaces with the rail traffic monitoring system (ERTMS). This data and information exchange was made possible through the devices installed on board the train and the radio bases located wayside along the railway line. The info points on the current signalling systems - the buoys along the line - will be replaced by virtual buoys managed via satellite receiver, integrated with the ERTMS signalling system.
The benefits of ERSAT EAV are:
- to increase traffic capacity available to the rail companies in favour of passengers and to reduce CO2 emissions;
- to guarantee high safety standards and punctual operation of rail traffic;
- to reduce operating expense in that the new technology devices will require lower installation and maintenance investments.

Ansaldo STS has contributed in the definition of requirements to support the integration of satellites with the public radio communications networks.
It also set up the test site in Sardinia where the full functions of the new technology were tested.
The same GPS-based Ansaldo STS solution is already in operation in Australia: the first solution worldwide.
The tests carried out at the site in Sardinia were used to complete the Roy Hill Iron Ore project in Australia, the first system in the world for rail signalling of this type (in this case used for freight transport).
Roy Hill, in fact, recently developed its own project to mine iron ore and transport 55 million tonnes per year, via rail, from the mine to the port, for a total of 350 km of track.
The turnkey solution for signalling and communications dedicated to freight rail transport, developed by Ansaldo STS for Roy Hill, includes high-technology Integrated Signalling and Communications solutions which envisage, amongst other things, an automatic train protection system with satellite positioning that allows an increase in density in the number of trains on the line through moving block functions.
The Ansaldo STS solution optimises operating efficiency and allows automatic routing and control of trains to be managed from the control centre in Perth, more than 1,300 kilometres away. This solution also offers significantly improved safety of all the line activities.
Ansaldo STS has delivered stage 1 of the project - the integrated electronic system known as Integrated Electronic Train Order (IETO) - which entered into service in September 2016. The radio signalling system, or Communications Based Signalling (CBS) was completed in January 2017, and the final stage of the project - moving block functions - is nearing delivery.

In June, Ansaldo STS signed a Memorandum of Understanding with Metroselskabet for the development of a Proof of Concept (prototype) for the new Dynamic Headway Solution created from Hitachi technology for the Copenhagen metro lines M1 and M2.
The Dynamic Headway Solution will be developed using Ansaldo STS railway control systems and the Hitachi technological digitization IoT (Internet of Things), characterised by its sensor detection of passenger flow on the platforms to analyse passenger needs. And on the basis of this mobility demand, the number of carriages available can be optimised automatically, responding dynamically to sudden changes in the number of users present.
This technology is particularly useful if there is an increase in the demand for vehicles during metro operations. A dynamic solution that will help to resolve potential congestion even before the repercussions on passengers are felt, thereby also increasing passengers' level of satisfaction. For the operator, this solution that is highly reactive and adapts the numbers of trains to actual demand in real time, equates to an opportunity to reduce energy costs and operating costs, so improving service operations.
In July, Hitachi Ansaldo Baltimore Rail Partners LLC, a company established by Hitachi Rail Italy S.p.A. and Ansaldo STS USA, Inc. (the US subsidiary of Ansaldo STS S.p.A.), was awarded a contract by Maryland Transit Administration (MTA) valued at USD 400.5 million for the Baltimore metro. The contract is for the supply of new trains and the Communication Based Train Control (CBTC) system for the Baltimore Metro Subway Link.
As regards replacement of the existing signalling system with Ansaldo STS's innovative CBTC system, the value is around USD 148 million.

At the end of December, the CIPE approved the final project for the high speed Verona-Vicenza junction line and authorised the start of construction works on the first functional section of the high speed/high capacity Verona-Padua line. Ansaldo STS participates in this project's implementation through its involvement in the Iricav Due consortium (investors: Astaldi 37.49%, Salini Impregilo 34.10%, Ansaldo STS 17.05%, Società Italiana per Condotte d'Acqua 11.35%, Fintecna 0.01%), the concession holder. The value of Ansaldo STS's portion of the work equals roughly €336 million.
In connection with the significant event occurred after the closing date no further significant events have been noted in addition of what is stated in the paragraph 2.3 "Net financial position" in the Management Report related to the Red Line project topic.

4 Risks and uncertainties

The risks described below stem from a consideration of the features of Ansaldo STS group's market 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 the group as a result of its adopted classification are outlined below (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.
Macroeconomic and geopolitical factors that could impact the group's operations include the growth rate in the reference countries, public spending on infrastructure and the decrease in raw materials prices which diminishes the spending power of customers in certain markets.
The economic and geopolitical instability arising from external factors such as Brexit, financial and monetary volatility, increased geopolitical tension, terrorism, uncertainty as regards national and international leadership and potential international trade restrictions could seriously compromise global growth. This in combination with the weakness of Italy's role in the global economy and the slowdown in economic growth in the Ansaldo STS group's areas of operation could have a negative impact on the confidence level and economic stability.
This scenario could translate into new orders with a lower profit margin, cancellations or delayed acquisition of contracts, payment delays, less favourable contractual conditions with a resulting negative impact on group profit and loss of competitiveness on the market.

Furthermore, with the worsening of contractual and financial terms in new contracts, along with the increased complexity of the contracts themselves that involve greater risks and, among these, due to reduced customer funding sources, there is greater recourse to Project Financing. 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.

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.
Developments in technical standards that are not promptly adopted by the company could have a negative effect on competitiveness and market shares.
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.

Rapid technological developments conflicting with contractual obligations that impose long-term availability of spare parts 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, weak project technical management and contractual requirements open to differing interpretation 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 and subsuppliers)

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, the 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 suppliers, subcontractors and subsuppliers, particularly in new markets, may be inadequate, with negative impacts on the competitive nature of the technical solutions offered and on project performance.
To mitigate these risks, the group has processes in place to select and evaluate suppliers, subcontractors and subsuppliers, 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 Management of requirements and relevant technical references

A different interpretation of unstable or incomplete requirements with specific shortcomings could have a negative impact on product compliance, on compliance with the budget and deadlines, on project performance and on customer satisfaction. Ineffective configuration management due to difficulties in product/component traceability could result in poor spare parts, repairs and maintenance management.

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, damage to reputation and the application of penalties, 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 company 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 and Governance

The complexity of dealings with third parties (customers and subcontractors/subsuppliers), 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.

An unfavourable news report due to incorrect interpretation of corporate governance decisions and financial data could have a negative impact on reputation and result in dispute-related costs.

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 and can mean long local engagements for the project team.
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.

The 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.

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 accordance with the new Global Reporting Initiative criteria and corresponding to complete application of requirements of the GRI Guidelines.
The new GRI-G4 Guidelines place increasing attention on detecting and analysing stakeholder expectations, identifying issues of most importance to the Group and its stakeholders through the materiality matrix which forms the basis for the Sustainability Report preparation process.

In full compliance with ruling legislation, the law, the code of ethics, 231 Model, policies and all health, safety and environmental (HSE) regulations, Ansaldo STS pursues 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

The company 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. The integrated management model steers and coordinates the procedures, outlining short and long-term guidelines and principles, stimulating interiorisation of the sustainability and environmental and safety strategies.
Through a constant process of action, monitoring and assessment, Ansaldo has achieved environmental benefits associated with its business activities, particularly as regards the rational use of resources and the reduction in CO2 emissions.
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. In 2017 Ansaldo STS launched the migration process to the new UNI EN ISO 14001:2015 standard which, compared to the previous version, promotes deep rooting of the Management System into company activities, extending the improvement strategies to a much broader view of environmental sustainability. In this context, Ansaldo STS has begun a procedure to integrate the sustainability principles into its business.

Innovation and the promotion of good practices

The environmental management system adopted by Ansaldo STS 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

The Ansaldo STS Group'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 wayside 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 existing projects, 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 Batesburg (USA) 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 in the past lamps were 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.
The company's 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. Ansaldo STS monitors the environmental aspects of its business with a view to enhancing local resources and reducing interference with the ecosystems to a minimum.

Management of water resources

Ansaldo STS remains committed to the rational use of water resources, also through training and sensitisation on this issue. 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, CO_2 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 2017, net of grants, totalled €41.3 million (€36.7 million in 2016). In particular, total research and development expense was €43.6 million (€38.6 million in 2016), against grants approximating €2.3 million (€1.9 million in the previous year).
The stronger investments were concentrated on the range of on-board systems to adapt to ERTMS standards and to improve CBTC application performance. In addition, the project was launched for the new automation products platform ready for the digital technology developments.

As regards projects funded by the Italian Ministry of Research, note the following:
- Tesys Rail, to define strategies for the energy optimisation of rail traffic;
- PON3, through the Campania district DATTILO (High technology district for transport and logistics) and the Campania laboratory TOP IN (Optoelectronic technologies for industry):
  - MODISTA, which dealt 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. This project terminated at the end of June;
  - OPTOFER for the application of innovative optoelectronic technologies for railway infrastructure monitoring and diagnosis. This project terminated at the end of the first quarter;
  - FERSAT, which studied a railway signalling system suitable for urban environments based on the innovative use of satellite technologies and their integration with existing technologies. This project terminated at the end of June;
  - NEMBO for the study and experimentation of highly-efficient innovative embedded systems for railway applications. This project terminated at the end of the third quarter.

Of note among the projects financed by the European Commission are:
- NGTC, aimed at developing future rail and urban traffic control systems. Ansaldo STS headed up the work package related to satellite positioning and actively participated in definition of the IP Communications. This project terminated in the first quarter;
- 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 railway system maintenance;
- IN2RAIL, linked to the Shif2Rail initiative which is aimed at optimising railway infrastructure reducing construction and maintenance costs and increasing capacity.

The following projects form a broad part of the SHIFT2RAIL European programme related to the railway inter-operability:
- 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.

The following projects were added to the aforementioned programme at the beginning of September:
- IN2STEMPO, *Innovative Solutions in Future Stations, Energy Metering and Power Supply*, for the definition of smart energy metering solutions for the system and future solutions for the stations;
- CONNECTIVE, *Connecting and Analysing the Digital Transport Ecosystem*, which will define a new level of interaction and access to services and data on the transport systems in a distributed multimodal environment;
- FR8HUB, *Real-time information applications and energy efficient solutions for rail freight*, which aims to increase the percentages of freight traffic by rail through greater transport system efficiency, with particular reference to terminals, junctions and hubs;
- IMPACT-2, *Indicator Monitoring for a new railway PAradigm in seamlessly integrated Cross modal Transport chains–Phase 2*, the aim of which is to assess and increase the effects on mobility and on the environment of the technology solutions and developments made as part of the Shift2rail programme;
- X2RAIL-2, *Enhancing railway signalling systems based on train satellite positioning; on-board safe train Integrity; formal methods approach and standard interfaces, enhancing Traffic Management System functions*, which aims to promote signalling innovation (introduction of satellite technology and *Train Integrity*), supervision (*Traffic Management evolution*) and development process management (introduction of *Formal Methods*).

Note that certain satellite technology projects are also financed by the European Commission. 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. In addition, the verifications were conducted on the accuracy of the open and modular architecture of the Ansaldo augmentation system. Demonstrations of the proper functioning of the trial site were later arranged in Sardinia as part of national workshops. ERSAT EAV was completed at the end of April.
Again in the satellite environment, activities are in progress for the STARS project, whilst RHINOS terminated at the end of October. Both projects are part of the European GNSS Agency (GSA) research programme, Horizon 2020.

For STARS in particular, important research activities were completed relating to the definition of methodologies 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 continued at the Sardinia and Pontremolese trial sites in order to acquire Signal In Space (RF signal) and observation data relating to GPS, EGNOS and Galileo in different railway environmental conditions. The development of EGNSS services were also defined to satisfy performance and safety requirements for railways and to identify any impact on the ERTMS/ETCS systems.
For RHINOS, the phase of defining a functional architecture of an ERTMS system was completed, based on future satellite technology. This technology is suitable for the most stringent requirements, such as track discrimination, high availability and integrity. The results of these activities were discussed at the international workshop held at Stanford University.

Still part of the satellite environment but funded by the ESA (European Space Agency), the following projects were launched in the last quarter of 2017:
- DB4RAIL (*Digital Beamforming for RAIL*), which will develop a digital beamforming platform within the context of ERTMS and implement an advanced GNSS antenna and signal processing techniques to increase immunity from intentional electromagnetic interference (EMI);
- SAT4TRAIN, with aims to develop an economically efficient *Multi Link Communication Platform* (MLCP) to replace the GSM-R system which is destined to become obsolete in the next few years;
- SIM4RAIL, has the purpose of specifying and developing highly controllable laboratory tools for bench testing and to support the development of PNT technologies for railway signalling applications, including the virtual beacon detection system based on GNSS on the ERTMS system).

Development activities also took place on the following projects, which do not receive external funding:
- Ansaldo STS S.p.A.
  - MacroLok Interlocking Platform
    - RBC
    - “FAST” tools suite
  - Automation v2.0
  - 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*
  - Automation v2.0
  - MicroLok Interlocking

Specifically:
- activities to develop CBTC to integrate the generic functions requested for new contracts and the testing of the safety of ongoing contracts continued;
- ATS Metro evolutionary developments continued at the same pace as the CBTC roadmap;
- activities began on the new multiyear programme “Automation v2.0”, committing resources both in Italy and the USA. The new development aims to standardise the hardware/middleware to increase platform efficiency, develop a new infrastructure to host future “value added services” and create a new user interface. The aim of Automation v2.0 is to better satisfy demand and keep up with new digitization trends;
- evolutionary development activities continued on the Interlocking MacroLok platform, seeking to improve and expand the functions offered by the platform so as to satisfy global market demand;
- RBC developments (on the MacroLok platform) to adapt the generic application to the more advanced ERTMS and generic product standards;
- development of the new “FAST” tools suite (on the MacroLok platform) dedicated to system design and configuration;
- as regards the MicroLok Interlocking platform, 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 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 and in other more recently acquired contracts.

New evolutionary developments began in 2017 on the DIVA onboard platform. The works aim to standardise the HW configurations, primarily for ERTMS applications as well as overall improvement in the platform’s performance.

Research and development expense net of grants, mainly relating to the projects described above, is as follows for the group companies:
- Ansaldo STS S.p.A.: €21.0 million;
- Ansaldo STS France S.A.S.: €10.0 million;
- Ansaldo STS USA Inc.: €10.3 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.
In particular, the Talent Management process was launched, redefined in terms of general architecture and development programme. The selection process, which led to the identification of 120 persons internationally, focused on three key profiles: Junior, Senior (managerial stream), Senior (technical stream).
The new development programme is based on certain key elements such as know-how management, networking and collaboration, proactiveness, innovation and delivery. A project work, the topics for which were defined with senior management, will represent the guiding thread of the initiative and will facilitate the sharing of skills and experience between individuals from different geographic areas and professional backgrounds, at the same time guaranteeing a strict connection with the business.
First and foremost among the programme's objectives is the strengthening of personal skills and the transfer and sharing of know-how, aiming to ensure that the flow of experience and expertise stays strong and continues within the company, supporting growth and also promoting other new and alternative ways of thinking.
This one-year programme was launched in November with a kick-off meeting and an initial workshop on Knowledge Management, and is due to end in December 2018.

2017 was also the year that, within the Talent Management system, the pilot programme known as Knowledge Owner came to an end. As it progressed it achieved the objective of sharing technical skills considered to be fundamental. For year two, the resources previously identified at global level (76) were committed to providing specialist technical courses, reaching the major milestone of around 60 sessions, 940 attendees and 10,000 training hours (more than 10% of the global plan). It is important to mention that all these courses now form part of the company's training catalogue.

In 2017, after last year's "Global Employee Survey", the Human Resources Department identified and carried out a series of actions to improve the perceptions emerging from responses in relation to certain areas. Each manager with more than 6 employees under his direct control was also given access to the aggregate results for his team, inviting him to include improvement goals deriving from the feedback illustrated in the survey among his annual goals. In September a new questionnaire was launched which saw a response from around 76% of company employees. The 2017 results showed net improvements over 2016 in all areas covered by the survey.

7.1.1 Ansaldo STS

The following changes were made in the company's governance during the year:
On 30 January 2017, the board of directors approved a new organisational structure. This change involved a simplification and optimisation of the organisational structure in relation to those reporting directly to the Chief Executive Officer, reducing the number from 14 to 11.
On 28 March 2017, the board of directors appointed Renato Gallo as the company's new CFO.
On 28 April 2017, Mr. Corsi and Mr. Gallo were included among the key managers, in addition to Mr. Andi, Mr. Gaudiello and Mr. Fracchiolla.
Following termination of the employment relationship with Francesco Romano with effect from 30 June 2017, on 15 June 2017 the board appointed Andrea Luzinat as the new head of the Human Resources & Organization Department.
The following people are in office at 31 December 2017:

- 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.

Again following termination of the employment relationship with Mr. Romano, on 15 June 2017 the board of directors resolved to delegate powers of representation for duties required of the company as "Personal Data Controller" pursuant to article 28 of Legislative decree no. 196/2003 (Personal Data Protection Code) to Giovanni De Liso, as proposed by the chief executive officer.

On 28 July 2017 the board appointed Andrea Crespi as Internal Audit Manager with effect from 1 October 2017.

7.1.2 Subsidiaries

Therefore, the country representatives of Ansaldo STS's major entities at 31 December 2017 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 2017

The group's headcount at 31 December 2017 numbered 4,228, up 277 employees (7.0%) on the 3,951 employees at 31 December 2016.

The group's average workforce for the year numbered 4,081 compared to 3,828 in the previous year.

The headcount may be analysed as follows:

COMPANY/REGION	2017	2016	Change
ASTS Italy*	1,863	1,712	151
ASTS France**	913	868	45
ASTS USA	754	712	42
ASTS APAC	635	597	38
ASTS China	63	62	1

* 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 increase in APAC resources is linked to the expansion of business activities in India.

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 based of the proposal of the remuneration committee of 17 February 2014, which was subsequently passed by the shareholders on 15 April 2014, approved a three-year 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 2016 were achieved. All three objectives assigned of EVA, FOCF and share performance compared to the FTSE IT All-Share index were met for 2016. The tolerance band principle was applied in order to successfully meet the EVA objective. Accordingly, in compliance with the plan regulation, 94.5% of the shares initially earmarked were assigned to the beneficiaries.
The total shares due to the 33 current beneficiaries numbered 394,182. As a result of the three-year vesting period, the shares will actually be delivered in April 2019.

2017-2019 stock grant plan
On 24 March 2017, the Board of Directors, based of the proposal of the remuneration committee of 23 March 2017, which was subsequently passed by the shareholders on 11 May 2017, approved a three-year stock grant plan, addressed to the CEO, key managers and other executives (or equivalent categories) of Ansaldo STS considered key resources by the Company. The objectives of the Plan are the same as those of the previous 2014-2016 Plan (EVA, FOCF and share performance compared to the FTSE Italia All-Share index).
Like the previous plan, the 2017-2019 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.

7.2.2 LTIPs
2014-2016 cash plan - 2016 instalment
This plan was set up for the CEO and three key managers 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 2016 objectives were met was immaterial even though the company did check them for documentary completeness.
In May 2017, in accordance with the annual vesting period and related accrual, 50% of the 2015 tranche was disbursed.

2015-2017 cash plan - 2016 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 the two performance objectives (Invested Capital and ROS%) were met, 100% 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 2018.
In May 2017, in accordance with the decisions made in board of directors resolution of 3 November 2015, the share disbursed for the 2015 tranche was equal to that disbursed for 2014, i.e. 100%.

2016-2018 cash plan - 2016 instalment

This plan was set up for the CEO and three key managers 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.
As neither objective was reached (new orders and working capital), the beneficiaries will receive no cash payment.

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

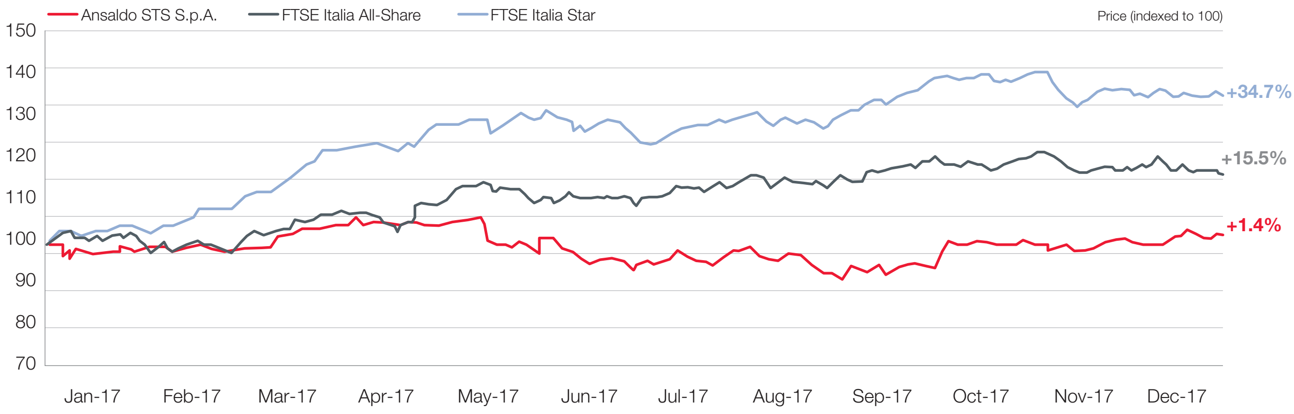
Financial market transactions

The primary objective of Ansaldo STS 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 company is presented properly.
The Investor Relations Department, reporting directly to the Chief Financial Officer, liaises constantly with analysts and investors in order to grasp market disclosure requirements and accurately tailor communications from senior management.
The regular surveys carried out with stakeholders have always confirmed the overall positive impression of the Investor Relations team's operations, recognised as the main point of contact between the company and the financial community.
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.
A number of investment banks provide periodic industry studies and competitor analyses which the Investor Relations Department collects, studies and disseminates internally, along with official market announcements.
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 communications plan is used to plan and develop Investor Relations activities. The aim is to disseminate and communicate the company's market analyses, policies and strategies.
With the same resources and quality of its activities compared to the previous year, the Investor Relations Department continued to monitor and analyse the market and the competition in reporting period, in order to support management. In addition to the usual daily focus on and weekly collection of market "rumours" (IR NEWS), the department periodically analyses and updates 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 2016 to 31 December 2017** period rose from €11.84 to €12.00, up 1.4%.
The share's high for the year and all-time company record of €12.50 was recorded on 5 April 2017 and its low for the year of €10.78 on 4 September 2017.
An average of 112,750 shares were traded daily in the year, compared to 201,762 in 2016. The decline in volumes is a direct consequence of the reduced float.
The FTSE Italia All-Share index gained 15.5% during the year while the FTSE Italia STAR index gained 34.7%.

Share performance compared to the main indices (base 100)



Key shareholders at 31 December 2017

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 2017:

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 Partnership Elliott International and The Liverpool Limited Partnership)	51,330,030	25.665
UBS	10,068,228	5.034
LITESPEED MASTERFUND	7,532,322	3.766

Key data per share

Earnings per share (€)	2017	2016
Basic and diluted EPS	0.32	0.39
Dividend per share	0.15*	-

* proposed to the shareholders.

The amount proposed to the shareholders to be distributed as dividends on the 2017 profit totalled €30,000 thousand (the shareholders' meeting had decided not to distribute a dividend for 2016).

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 with redesign of the work plan and reformulation of the claims 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.
The hearing was held in September 2016 to discuss the claim pursuant to article 186-*ter* of the Italian penal code; the Court assigned a deadline to Roma Metropolitane for any observations on the new calculations carried out by Metro C.
At the October 2017 hearing, Roma Metropolitane filed documents relating to works progress report no. 4 for the add-on agreement of July 2014 relating to maintenance. The lawyers raised objection to this late filing but the court accepted the documents in question, assigning Metro C a deadline to file their own documentary evidence in good time before the new hearing to define conclusions set for the end of November 2017. At that hearing, the decision on the case was adjourned to early 2018, establishing legal deadlines for the filing of conclusions and reply briefs.

Also 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. After the examination by experts appointed during the initial phase of the proceedings, the later hearings in 2016 and 2017 were subject to a number of adjournments and hearing of the admitted witnesses is now being scheduled.
With respect to the civil proceedings related to the collapse of the buildings, 32 cases for claims for damages, 1 for prior technical ascertainment and 1 for expected damages were pending in 2017.

3. AIASA 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 AIASA 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 joint venture against ATTIKO METRO. In this respect, note in particular the arbitration panel decision of December 2014 on "Dispute 66" which ruled that the current work schedule discretionally set by the customer is illegitimate. In light of such award, the JV informed the customer Attiko Metro that the contract was terminated as its term had expired now that the discretional extension had expired.
Subsequently, the JV and the customer tried to define a contractual solution in order to resume the work.
To date the Parties have essentially finalised most of the disputes covered by the 6 different arbitration proceedings and the initial payments are in progress.

4. 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, plus interest, outstanding invoices and legal costs.
In December 2017, SNCFT filed an appeal for annulment of the arbitration award, instigating the related proceedings before the Paris Court of Appeal. It is expected for the first half of 2018 SNCFT's filing of its introductory brief, triggering the deadlines for Ansaldo to file its own defence briefs. After this the appointed Court of Appeal will establish the dates for filing of additional defence statements. The first hearing should be scheduled within a year.

5. 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 discussion of the suspension was held on 4 May 2017. Ruling no. 3640/2017 was filed on 24 July 2017, confirming the first instance decision. These proceedings are therefore considered closed.

6. ISAF 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 were 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. Following the successful conclusion of the arbitration proceedings against the customer, which constituted a precondition, in November 2017 ISAF informed the ICC that it did not wish to pursue the suspended arbitration proceedings against Ansaldo.

7. Stockholm Red Line.
With regard to the "System Delivery Agreement" signed on 3 November 2010 between Ansaldo STS Sweden (a 100% subsidiary of Ansaldo STS S.p.A.) and AB Storstockholms Lokaltrafik ("customer") for updating of the signalling system of one of the lines of the Stockholm metro, i.e. the "Red Line" (for a total value of around €127 million), in October 2017 the customer requested reimbursement of the advances paid for roughly €35 million, plus VAT and interest. Then on 7 November 2017 it served notice of its unilateral termination of the contract, claiming default by Ansaldo STS Sweden ("company") and requesting the reimbursement of residual advances paid (around €24 million, plus VAT and interest), as well as the application of penalties and compensation for damages estimated at a total of €17 million. The company challenged both the unilateral termination of the contract and the request for reimbursement of the advances and compensation for damages, considering them unfounded. On 20 December 2017, the Parties signed an agreement for the return to Ansaldo STS Sweden of all bonds previously released to the customer, against the reimbursement of residual advances paid by the customer for a total of around €31 million (VAT and interest included). Based on this agreement, the company paid the aforementioned amount on 25 January 2018, in exchange for the same-time return of all bonds by the customer. This payment, and likewise the previous amounts paid to the customer for €45 million (VAT and interest included), was made by the company, reserving the right to re-enact all measures without prejudice to its own rights and pending legal conclusion of the dispute.
The company is assessing all possible legal options to defend its rights, including the right to receive full payment for all works carried out to date as well as compensation for damages incurred, "also" due to the unilateral termination of the contract by the customer. In this respect note that, amongst other things, a report by a well-known international expert on such matters has been sent to the customer. The report analyses the contractual delay challenged, from which preliminary liability of the customer emerges for having caused the delay beyond the originally agreed work schedule, consequently resulting in postponement of the planned deadline for final acceptance from 30 September 2014 (contractual date) to at least 4 June 2021.
Pending conclusion of this dispute, Ansaldo STS Sweden and AB Storstockholms Lokaltrafik have agreed upon provisional activities to be implemented from January 2018.

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 complies with the latest version.
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 2017, approved by the board of directors on 14 March 2018, published at the same time as this annual report.
The shareholders' meeting held on 13 May 2016 determined that there would be nine directors and 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.
Note that the ordinary shareholders' meeting of 19 January 2017 resolved to take corporate liability action pursuant to art. 2393 of the Italian Civil Code against Giuseppe Bivona who, as a result, was immediately removed from office. At the same meeting, the shareholders' meeting appointed Michele Alberto Fabiano Crisostomo as new company director, replacing Giuseppe Bivona. Mr. Crisostomo will remain in office until expiry of the current Board's term of office.
The members of the Board of Statutory Auditors appointed for the period 2017-2019 by the shareholders on 11 May 2017 are: Antonio Zecca (chairperson), Giovanni Naccarato (statutory auditor) and Alessandra Stabilini (statutory auditor), with Valeria Galardi, Cristiano Proserpio and Alessandro Speranza as substitute statutory auditors.
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 27 February, with effect from 1 March 2017 and with opinion in favour from the Board of Statutory Auditors, the Board appointed Renato Gallo to replace Roberto Carassai as Manager in charge of financial reporting pursuant to art. 154-*bis* of Italian Legislative Decree no. 58/1998 and, ad interim, as Chief Financial Officer of the Company. Then on 28 March 2017 the Company confirmed the appointment of Renato Gallo as Chief Financial Officer of Ansaldo STS.
At its meeting of 15 June 2017 the board of directors accepted the declarations submitted by the independent directors (Rosa Cipriotti, Fabio Labruna, Katharine Rosalind Painter, Alberto de Benedictis, Mario Garraffo and Michele Alberto Fabiano Crisostomo) and confirmed that they continue to meet the independence requirements pursuant to current regulations and to the Code of conduct.
An 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. Later, the board meeting of 24 March 2017 confirmed Protiviti as the entity responsible ad interim for internal audit until 30 September 2017. Lastly, note that on 28 July 2017 the board appointed Andrea Crespi, a former consultant of Protiviti, as the new Internal Audit Manager with effect from 1 October 2017.
On 24 May 2016, the board of directors also 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 meeting of the Board of Statutory Auditors, held on 5 July 2017, the statutory auditors Antonio Zecca, Giovanni Naccarato and Alessandra Stabilini also confirmed that they meet the independence requirements pursuant to current legislation and stated thereby at the time of their appointment.

With respect to the independent auditors appointed to perform the legally-required audit of Ansaldo STS S.p.A.'s financial statements note that, in their meeting of 19 January 2017, the shareholders awarded the audit engagement for the 2016-2024 period to EY S.p.A..

Then on 24 March 2017 the board of directors approved the parent's remuneration policy for the year 2017, 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 23 March 2017. On 24 March 2017, 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 11 May 2017, 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 Ansaldo STS S.p.A. 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 disputes regarding corporate and governance aspects can be summarised as follows. In relation to that already reported for the dispute between Ansaldo STS S.p.A. and Giuseppe Bivona, with writ of summons served on 15 May 2017 and as follow-up to the resolution of 19 January 2017, the company exercised liability action against the former director, Mr. Bivona. The company requests i) ascertainment of liability of Mr. Bivona for breach of his duties as director of Ansaldo STS and for conduct harmful to the company's reputation, as well as ii) compensation for the damages suffered. The first hearing will be held in March 2018.
In relation to the dispute Amber Capital Italia SGR S.p.A. ("Amber Fund"), Elliott Funds/Litespeed Management versus Ansaldo STS S.p.A., it should be remembered that by separate writs of summons the Amber Fund, on the one hand, and the Elliott Funds and Litespeed Management on the other, challenged the shareholders' meeting resolution of 19 January 2017 to take liability action against the former director, Bivona.
As part of this dispute, the Amber Fund also requested the appointment of a special receiver, but the Court of Genoa rejected the claim by order (of 24 May 2017) which was not challenged by the legal deadline. Amber was ordered to reimburse all proceedings costs.
Through separate appeals, the Amber Fund, Elliott Funds and Litespeed Management requested suspension of the effects of the decision challenged. Following the hearing to discuss the injunction appeal, the Court of Genoa rejected the appeal by order of 7 July 2017, announcing lack of grounds both for *fumus boni iuris* and *periculum*.

The two cases were combined and will continue through the next hearing set for early 2018. In that it relates to organisational aspects of the company, i.e. the validity of a resolution relating to a director and his termination, no specific economic or asset-related effect on the Company can be calculated per se for this dispute.
With regard to the dispute Elliott International L.P., The Liverpool Limited Partnership, Elliott Associates, L.P. ("Elliott Funds") versus Ansaldo STS S.p.A. an versus Hitachi Rail Investments S.r.l., note that by writ of summons served on 14 July 2016 the Elliott Funds challenged the shareholders meeting resolutions of 13 May 2016 appointing the board of directors and its chairperson and requested an injunction order to suspend the resolutions challenged.
On 18 July 2016 the Elliott Funds submitted a petition for the appointment of a special receiver. The procedure for appointment of a special receiver lapsed on final rejection of the Elliott Funds claim by the Genoa Court of Appeal, by order dated 6 September 2016, which accepted the company's petition and revoked the order of the Court of Genoa issued on 11 August 2016 appointing a special receiver.
The injunction proceedings concluded by order dated 9 November 2016, by which the Court of Genoa rejected the request of the Elliott Funds to suspend the shareholders meeting resolutions challenged, due to its lack of all legal standing.
The hearing on the merits ended with the decision of 28 July 2017 by which the Court of Genoa rejected the Elliott Funds claims. By writ of summons served in October 2017, the Elliott Funds challenged the Court of Genoa's first instance decision. The preliminary hearing will be held in May 2018. In that it relates to organisational aspects of the company, i.e. the validity of the appointment of a board of directors, no specific economic or asset-related effect on the Company can be calculated per se for this dispute.
By petition pursuant to art. 700 of the Italian Code of Civil Procedure, served upon the company on 10 April 2017, director Labruna asked the Court of Genoa to adopt an urgent measure to obtain integration of the agenda for the next meeting of the board of directors as well as a series of documents of special interest. The decision of the sole judge of the Court of Genoa rejected the claim by order dated 24 April 2017 as lacking *fumus* and ordered the petitioner to pay all proceedings costs. After director Labruna proposed a complaint against the monocratic decision, the Court of Genoa pronounced as a united bench, rejecting the complaint and again ordering the petitioner to pay all proceedings costs.

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 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 handling and disclosure of inside and relevant information and for the setup and updating of the Insider List;
- 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.

Genoa, 14 March 2018

On behalf of the board of directors
The Chairperson

Alistair Dormer

Consolidated financial statements at 31 December 2017 and notes thereto

11 Consolidated financial statements

11.1 Consolidated Income statement

(€'000)	Notes	31.12.2017	of which, related parties	31.12.2016	of which, related parties
Revenue	15.2	1,360,967	77,690	1,327,386	92,118
Other operating income	15.3	26,448	1,488	21,256	1,300
Purchases	15.4	(388,973)	(25,862)	(354,006)	(23,648)
Services	15.4	(527,908)	(63,629)	(500,283)	(41,339)
Personnel expense	15.5	(334,220)	-	(332,338)	-
Amortisation, depreciation and impairment losses	15.6	(19,010)	-	(18,325)	-
Other operating expense	15.7	(20,132)	-	(21,507)	(4)
Changes in finished goods, work-in-progress and semi-finished products		265	-	(513)	-
(-) Internal work capitalised	15.8	3,390	-	5,131	-
Operating profit (EBIT)		**100,827**		**126,801**	
Financial income	15.9	22,986	10	12,441	-
Financial expense	15.9	(30,534)	-	(26,938)	-
Share of profits (losses) of equity-accounted investees	15.10	5,798	-	4,345	-
Pre-tax profit (loss)		**99,077**		**116,649**	
Income taxes	15.11	(34,209)	-	(38,746)	-
Profit (loss) from discontinued operations		-	-	-	-
Profit for the year		**64,868**		**77,903**	
attributable to the owners of the parent		*64,975*		*77,968*	
attributable to non-controlling interests		*(107)*		*(65)*	
Earnings per share					
Basic and diluted		*0.32*		*0.39*	

11.2 Consolidated Statement of comprehensive income

(€'000)	Notes	31.12.2017	31.12.2016
Profit for the year		**64,868**	**77,903**
Items that will not be reclassified to profit or loss:			
- Actuarial gains (losses) on defined benefit plans	14.14	(1,062)	(2,091)
- Income tax	15.11	(87)	703
		(1,149)	**(1,388)**
Items that will or may be reclassified to profit or loss:			
- Net change in fair value of cash flow hedges	14.14	(1,610)	4,511
- Net exchange rate gains or losses	14.14	(37,524)	7,718
- Income tax	15.11	396	(1,767)
		(38,738)	**10,463**
Other comprehensive income, net of taxes		**(39,887)**	**9,074**
Comprehensive income for the year		**24,981**	**86,977**
Attributable to:			
- the owners of the parent		25,100	87,063
- non-controlling interests		(119)	(86)

11.3 Consolidated Statement of financial position

(€'000)	Notes	31.12.2017	of which, related parties	31.12.2016	of which, related parties
ASSETS					
Non-current assets					
Intangible assets	14.2	47,505	-	49,262	-
Property, plant and equipment	14.3	85,349	-	85,198	-
Equity investments	14.4	78,753	-	73,047	-
Loans and receivables	14.5	43,456	25,627	45,485	25,522
Deferred tax assets	15.11	36,213	-	41,324	-
Other non-current assets	14.5	13,794	-	16,090	-
		305,070		**310,406**	
Current assets					
Inventories	14.6	110,995	-	125,067	-
Contract work in progress	14.7	379,590	-	358,865	-
Trade receivables	14.8	736,664	55,208	728,852	62,376
Tax assets	14.9	35,782	-	22,649	-
Loan assets	14.8	30,633	232	34,233	267
Other current assets	14.10	84,386	21	84,604	4
Cash and cash equivalents	14.11	327,326	-	305,586	-
		1,705,376		**1,659,856**	
Non-current assets held for sale		-	-	-	-
Total Assets		**2,010,446**		**1,970,262**	
EQUITY AND LIABILITIES					
Equity					
Share capital	14.12	100,000	-	100,000	-
Reserves	14.13-14.14	628,892	-	607,626	-
Equity attributable to the owners of the parent		*728,892*		*707,626*	
Equity attributable to non-controlling interests	*14.15*	*101*	-	*220*	-
Total equity		**728,993**		**707,846**	
Non-current liabilities					
Employee benefits	14.18	37,572	-	36,048	-
Deferred tax liabilities	15.11	8,830	-	12,175	-
Other non-current liabilities	14.19	14,378	-	12,908	-
		60,780		**61,131**	
Current liabilities					
Progress payments and advances from customers	14.7	683,036	-	598,012	-
Trade payables	14.20	413,639	29,873	458,119	19,671
Loans and borrowings	14.16	424	-	1,780	-
Tax liabilities	14.9	6,021	-	8,978	-
Provisions for risks and charges	14.17	15,967	-	14,040	-
Other current liabilities	14.19	101,586	410	120,356	410
		1,220,673		**1,201,285**	
Total Liabilities		**1,281,453**		**1,262,416**	
Total Liabilities and Equity		**2,010,446**		**1,970,262**	

11.4 Consolidated Statement of cash flows

(€'000)	Note	31.12.2017	of which, related parties	31.12.2016	of which, related parties
Cash flows from operating activities:					
Profit of the year		64,868	-	77,903	-
Share of profits (losses) of equity-accounted investees		(5,798)	-	(4,345)	-
Income taxes		34,209	-	38,746	-
Italian post-employment and other employee benefits		932	-	787	-
Stock grant plans		1,621	-	4,731	-
Net gains on the sale of assets		160	-	71	-
Net financial income		7,558	-	14,497	-
Amortisation, depreciation and impairment losses		19,010	-	18,325	-
Accruals to/reversals of provisions for risks		4,212	-	4,814	-
Other operating income/expense		(20,205)	-	3,118	-
Write-downs/reversals of write-downs of inventories and work in progress		27,306	-	(4,498)	-
Gross cash flows from operating activities	**17**	**133,873**		**154,149**	
Inventories		9,271	-	(2,981)	-
Work in progress and progress payments and advances from customers		(56,265)	-	(63,094)	-
Trade receivables and payables		1,425	(17,370)	(17,077)	(2,152)
Changes in working capital	**17**	**(45,569)**		**(83,152)**	
Changes in other operating assets and liabilities	17	(15,098)	17	17,041	8
Net financial expense	17	3,810	-	(13,388)	-
Taxes paid	17	(26,890)	-	(20,928)	-
Cash flows generated from operating activities		**50,126**		**53,722**	
Cash flows from investing activities:					
Investments in property, plant and equipment and intangible assets and others		(19,927)	-	(15,812)	-
Sales of property, plant and equipment and intangible assets and others		4,049	-	3,278	-
Sales of equity investments		92	-	(39)	-
Dividends received		10	-	-	-
Other investing activities		60	-	-	-
Cash flows used for strategic transactions		(3,128)	-	(2,100)	-
Cash flows used in investing activities		**(18,844)**		**(14,673)**	
Cash flows from financing activities:					
Net change in other financing activities		(1,596)	(35)	(1,290)	(2,796)
Dividends paid		-	-	(36,000)	-
Cash flows used in financing activities		**(1,596)**		**(37,290)**	
Net increase in cash and cash equivalents		29,686	-	1,759	-
Net exchange rate losses		(7,946)	-	(479)	-
Opening cash and cash equivalents		305,586	-	304,306	-
Closing cash and cash equivalents		**327,326**		**305,586**	

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 2016	**100,000**	**504,504**	**(1,469)**	**4,611**	**28,722**	**18,418**	**654,787**	**306**	**655,093**
Change in consolidation scope and companies measured at equity	-	(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**
Dividends	-	(36,000)	-	-	-	-	**(36,000)**	-	**(36,000)**
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**
Equity at 1 January 2017	**100,000**	**544,451**	**3,042**	**8,115**	**36,755**	**15,263**	**707,626**	**220**	**707,846**
Change in consolidation scope and companies measured at equity	-	(4,091)	-	-	674	-	**(3,417)**	-	**(3,417)**
Net change in stock grant reserve	-	-	-	(417)	-	-	**(417)**	-	**(417)**
Other comprehensive income (expense), net of taxes	-	-	(1,610)	-	(37,512)	(753)	**(39,875)**	(12)	**(39,887)**
Profit for the year ended 31 December 2017	-	64,975	-	-	-	-	**64,975**	(107)	**64,868**
Equity at 31 December 2017	**100,000**	**605,335**	**1,432**	**7,698**	**(83)**	**14,510**	**728,892**	**101**	**728,993**

12 Notes to the consolidated financial statements at 31 December 2017

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 was listed on Borsa Italiana S.p.A. (Star Segment) on 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 2017 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 (IFRS IC) issued by the International Accounting Standards Board (IASB) applicable at such date.
These consolidated financial statements have been prepared on a historical cost basis, except for those captions which, as required by the IFRS-EU, are to be recognised at fair value (where fair value means the price that would be received from the sale of an asset, or that would be paid to transfer a liability, in a regular transaction between market operators at the valuation date) 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 present 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 2017 were approved and authorised for publication on 14 March 2018 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

These consolidated financial statements include the financial statements 31 December 2017, 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	EURO	100
ANSALDO STS BEIJING LTD	Indirect	Beijing (China)	7,732	CNY	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	EURO	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	Toronto (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	EURO	100
ANSALDO RAILWAY SYSTEM TRADING (BEIJING) Ltd	Direct	Beijing (China)	10,250	CNY	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	24.60
METRO BRESCIA S.r.l.	Direct	Brescia (Italy)	4,020	EUR	19,796
INTERNATIONAL METRO SERVICE S.r.l.	Direct	Milan (Italy)	700	EUR	49.00
BALFOUR BEATTY ANSALDO SYSTEMS JV SDN BHD	Indirect	Kuala Lumpur (Malaysia)	6,000	MYR	40.00

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	14.00
I.M. Intermetro S.p.A. (in liquidation)	Direct	Rome (Italy)	2,461	EUR	21.26
Società Tram di Firenze S.p.A.	Direct	Florence (Italy)	9,000	EUR	2.956
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	25.00
San Giorgio Volla2 consortium	Direct	Naples (Italy)	71	EUR	25.00
Consorzio Cris (in Liq.)	Direct	Naples (Italy)	2,377	EUR	1.00
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	4.68
Sesamo S.c.a.r.l.	Direct	Naples (Italy)	100	EUR	2.00
ISICT consortium	Direct	Genoa (Italy)	43	EUR	14.29
Cosila consortium (in liq.)	Direct	Naples (Italy)	93	EUR	1.11
MM4 consortium	Direct	Milan (Italy)	200	EUR	17.68
Radiolabs consortium	Direct	Rome (Italy)	258	EUR	20.02
SPV M4 S.p.A.	Direct	Milan (Italy)	49,345	EUR	5.55
Ansaldo STS do Brasil Sistemas de Transporte Ferroviario e Metropolitano LTDA	Direct	Fortaleza (Brazil)	1,000	BRL	99.99
Hitachi Ansaldo Baltimore Rail Partners LLC*	Indirect	Wilmington (Delaware USA)	0.5	USD	50.00
Metro de Lima Linea 2 S.A.	Direct	Lima (Peru)	368,808	PEN	16.90
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	12.00
Dattilo S.c.a.r.l.	Direct	Naples (Italy)	100	EUR	14.00
MetroB S.r.l.	Direct	Rome (Italy)	20,000	EUR	2.47

* The company was incorporated at the tender phase and will be used as a vehicle for the billing of the recent contract acquired in Baltimore. Given joint control is defined, the balances of the associated financial statements are consolidated directly by the respective partners.

During the year, the Board of Directors approved the winding-up of the company Ansaldo STS Do Brasil Sistemas de Transporte Ferroviario e Metropolitano LTDA (a direct investee of Ansaldo STS S.p.A. which holds 99.99% and Ansaldo STS USA International Co. which holds 0.01%). It was formed to participate in the tender for the construction of the Fortaleza underground which the company did not win, and given there are no further short-term commercial opportunities in the country, the decision was taken to proceed with the winding-up.
In addition, the striking off from the tax registers in Botswana and subsequent winding-up of the company Ansaldo STS Southern Africa Pty was also approved, given all the contracts in the portfolio were fulfilled.

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.

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 2017 in the case of these consolidated financial statements), or based on financial valuation techniques for unlisted instruments as set forth by IFRS 13.
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 consolidation 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 31.12.2017	**Average rate for the year ended 31.12.2017**	Spot rate at 31.12.2016	Average rate for the year ended 31.12.2016
USD	1.19930	1.12922	1.05410	1.10641
CAD	1.50390	1.46385	1.41880	1.46661
GBP	0.88723	0.87626	0.85618	0.81889
HKD	9.37200	8.80069	8.17510	8.58851
SEK	9.84380	9.63651	9.55250	9.46622
AUD	1.53460	1.47256	1.45960	1.48878
INR	76.60550	73.49575	71.59350	74.35059
MYR	4.85360	4.85013	4.72870	4.58497
BRL	3.97290	3.60462	3.43050	3.86128
CNY	7.80440	7.62615	7.32020	7.34907
VEB	11,978.00000	11,278.04250	10,527.80000	10,242.00833
BWP	11.81580	11.67698	11.24370	12.05322
ZAR	14.80540	15.03626	14.45700	16.28110
KZT	397.96000	368.57722	351.52400	378.43994
JPY	135.01000	126.64153	123.40000	120.29606
AED	4.40440	4.14582	3.86960	4.06156
KRW	1,279.61000	1,275.64007	1,269.36000	1,284.66726

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.

The following table lists depreciation periods for each item:

Goodwill:	indefinite useful life
Patent and similar rights	3-5 years
Concessions, licences and trademarks:	3-5 years
Research and development expense:	3-5 years
Other intangible assets:	3-5 years

(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 company 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 delays); 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.
This category normally includes trade and other receivables for which the financial component is insignificant.
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"). This reserve is released to 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 for derivatives 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 at the valuation date;
- 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 Group 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. The method applied is 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 consolidated financial statements, the EU has endorsed several standards and interpretations which are not yet mandatory and which the group 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 interpretation		Nature and impacts on the group
IFRS2	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. The IASB introduced a new standard, whose final version incorporates the requirements of all three phases of the financial instruments project, i.e.: • classification-measurement; • impairment; • hedge accounting. As regards the classification and valuation of financial assets, the new standard allows both the amortised cost method and the fair value measurement method to be applied. For the latter, in particular, the fair value changes relating to credit risk are booked to Other Comprehensive Income and not to the income statement. As regards impairment, IFRS 9 establishes a new “expected loss” model which replaces the “incurred loss” mode of IAS 39 - based on the expected model. The allowance for impairment must be determined with a forward looking approach using a three-step model. For hedging transactions, the new accounting model is simpler and more closely related to risk management activities. The result is a greater probability of qualifying transactions as hedges, and therefore less volatility in the income statement. The current version of IFRS 9 will be applicable as of 1 January 2018, and the group does not expect any significant impacts from adopting said standard.
IFRS 15	Revenue from contracts with customers	The IASB issued a single general framework for the recognition of revenue. The guidelines in IFRS 15 are much more detailed than the provisions of the current IFRS for the recognition of revenue given they include operating guides and examples. 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 group will apply this standard starting from 1 January 2018, and the impact of the adoption of this standard on the Company is described in the following paragraphs.
IFRS 16	Leases	The standard published in January 2016 contains a single model for the accounting recognition of leases, eliminating the distinction between operating leases and finance leases from the lessee’s perspective; it therefore replaces IAS 17 Leases, IFRIC 4, SIC-15 and SIC-27. In particular, the new standard 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 9, a project was implemented in 2017 dedicated to analysing the impacts of the application of these standards from a quality and quantity perspective.

Adoption of IFRS 15 “Revenue from contracts with customers”

As already described at the time of preparation of the consolidated financial statements as at 31 December 2016, the IASB issued IFRS 15 “Revenue from contracts with customers”, which provides a new regulatory framework which will replace, effective for financial statements for years starting on or after 1 January 2018, all pre-existing accounting provisions regarding the recognition of revenue from the sale of goods and services to the customers present, particularly as regards Ansaldo STS, in the following documents and related interpretations:
- IAS 11 “Construction contracts”;
- IAS 18 “Revenue”.

The objective of the new standard is to ensure financial statements users fully understand the nature, amount, timing and uncertainties of revenue and cash flows generated by contracts stipulated with customers.
IFRS 15 introduces a raft of changes and are structured into a detailed series of accounting provisions, which constitute, as a whole, the single new model for recognising revenue from contracts with customers.

In particular, as already mentioned at the time of preparation of the consolidated financial statements as at 31 December 2016, IFRS 15 requires a 5-step process to be followed for the recognition of revenue:
- Step 1 – Identification of the contract;
- Step 2 – Identification of the performance obligations;
- Step 3 – Determination of the transaction price;
- Step 4 – Allocation of the transaction price to the different performance obligations;
- Step 5 – Recognition of revenue.

In light of the changes introduced by IFRS 15, the management of Ansaldo STS, as outlined in the consolidated financial statements as at 31 December 2016, deemed it appropriate to launch, in the first half of 2017, a project aimed at identifying the potential impacts of adopting the new standard.
In this context, Ansaldo STS’ management set up a special work group which, in implementing the gap analysis project, focussed its activities on the following aspects:
- comparative analysis of the accounting policies adopted by the group in terms of the recognition of revenue with respect to the requirements of the new international accounting standard;
- recognition of the main standard differences which could potentially have significant accounting, organisational and system impacts;
- identification of the main contracts with customers stipulated by group companies and analysis of the associated contractual structure, in order to verify the existence of potential impacts of application of the new accounting standard;
- analysis of the process of recognition of contract costs (pre-operating and operating) adopted by the group to identify the main cost categories attributed to the contract;
- verification of the compliance of each cost category identified on the basis of the activities pursuant to the previous point with the guidelines included in the new accounting standard;
- analysis of the transition options set forth by the new international accounting standard.

In light of the analyses conducted, some changes emerged, deriving from the application of IFRS 15 and the regulatory provisions contained in IAS 11 “Construction contracts”.

The main qualitative differences identified are outlined below:

Combining and Segmenting Construction Contracts

The new standard introduces more restrictive rules regarding “combining” a group of contracts into a single construction contract, establishing that this circumstance may only be verified in the event in which the contracts are entered into at the same time or almost at the same time with the same customer and one or more of the following conditions are met:

a) the contracts are negotiated as a package with a single commercial objective;
b) the consideration of a contract depends on another contract;
c) the goods or services promised in the contracts are considered as a single performance obligation.

In addition, as regards the identification of separate performance obligations contained in a single contract, with respect to the requirements of IAS 11, it will be necessary to exercise a greater degree of judgment regarding the elevated interrelationship and integration of the different elements of the construction contract, in order to consider it as a single performance obligation.

Variable considerations

The new standard requires variable considerations to be estimated at their expected value or the most likely amount. IFRS 15 also establishes that variable consideration is only included in the transaction price if, and to the extent that, it is highly probable that its inclusion will not result in a significant revenue reversal in the future when the uncertainty has been subsequently resolved.
Highly probable is a new concept, not provided for under IAS 11, explained in the new regulatory context through specific application guides.

Contractual amendments

IAS 11, paragraph 13 establishes that a variation must be included in contract revenue only if *(i)* it is probable that it will be approved and *(ii)* the amount of associated revenue may be reliably measured. The aforementioned principle of paragraph 14 also sets out that considerations relating to the price revision (claims) must be recognised only when *(i)* negotiations with the customer have reached an advanced stage such that it is probable that the customer will accept the claim; and *(ii)* the probable amount that will be accepted by the customer can be measured reliably.

The general approach of IFRS 15, both as regards variations, and claims, is instead based on the fact that contractual changes must only be recognised when the rights and obligations related to them are “enforceable” by the parties to the contract. In order to determine whether the rights and obligations created or changed due to the modification are enforceable, the entity must consider all the relevant facts and circumstances, including the terms of the contract and/or other elements of proof.

Pre-operating costs

With respect to the contents of IAS 11, paragraph 21 relating to the inclusion in contract costs of the expenses incurred to ensure obtainment of the tender contract, IFRS 15 introduces more stringent rules which establish that only the following can generally be recognised as assets *(i)* the external incremental costs of obtaining the contract (commissions and success fees) and *(ii)* costs incurred for “satisfying” the contract (e.g. costs relating to the design of the work incurred during the offer phase).

Significant financial components inherent in the contract

Based on the new regulatory body of the IAS/IFRS, if, in a contract with a customer, a payment extension is granted outside of the normal market conditions, the agreed consideration must be discounted to the present value. By contrast, the previous IAS/IFRS did not provide guidelines on the accounting of advance payments. With the new standard, it is necessary to verify whether each contract contains a significant financial component and, subsequently, determine the implicit interest rate inherent in the transaction, reflecting the credit rating of the contracting party that actually obtained a loan. The implicit interest rate is determined at the start of the contract and it is not necessary to subsequently update it to reflect changes in circumstances.

The main quantitative differences identified are outlined below:
The group completed its detailed analysis of the adoption of IFRS 15 and the quantitative impacts of application of the new standard relate primarily to the “Segmenting of construction contracts” - essentially to separate, in turnkey contracts, the construction phase from the Operation&Maintenance phase - and determination of “variable considerations”.

As anticipated, the new standard is applied by the Group from 2018 and the Cumulative Effect Method will be used to recognise previous impacts. Therefore, the 2017 revenue recognised on the basis of IAS 11 and IAS 18 will not be restated but an adjustment will be recognised to the Contract work in progress and Advances from customers, with a reserve for gains or losses as contra-item, therefore directly impacting Equity.

In this way, the revenue difference, for contracts in place as at 31 December 2017, calculated as if the new standard IFRS 15 had always been applied, will be accounted, as at 1 January 2018, in a retained earnings/accumulated losses reserve due to change of standard, for a total value of around € -32 million (reducing Equity), with a reduction of Work in progress and Advances from customers as a contra-item.

Deferred tax assets and/or liabilities will be disclosed on said impact with a contra-item in Equity of around € 9 million (increasing Equity).

Expected impacts on the presentation and associated information required

The provisions of IFRS 15 regarding presentation and of the required information are more detailed than those of the current standards. The provisions relating to presentation represent a significant change of practice and significantly increase the volume of information required in the group's financial statements. Much of the information required by IFRS 15 is completely new and the Group has verified that some of these disclosure requirements will have a significant impact.
In particular, the group expects the notes to the financial statements to increase due to the information on significant estimate judgments: in determining the transaction price for those contracts that include a variable consideration, how the transaction price has been allocated to performance obligations, and the assumptions made to estimate single sale prices for each performance obligation.
From the point of view of presentation in the financial statements, the assets and liabilities relating to work in progress will be identified as contractual assets and liabilities.

Adoption of IFRS 9 "Financial instruments"

In July 2014, the IASB issued the final version of IFRS 9 Financial Instruments, replacing IAS 39 *Financial Instruments: Recognition and measurement*. IFRS 9 brings together all three aspects relating to the project for the accounting of financial instruments: classification and measurement, impairment and hedge accounting. IFRS 9 is effective for years starting on or after 1 January 2018; early application is permitted. With the exception of hedge accounting, the standard must be applied retrospectively, but providing comparative information is not mandatory. As regards hedge accounting, the standard is generally applied prospectively, with some limited exceptions.

The Group will adopt the new standard, including the new rules regarding hedge accounting, from the date of entry into force and, in any case, will not restate the comparative information. During 2017, the Group conducted an analysis of the impacts of all the aspects addressed in IFRS 9 and did not note any impacts from its application. This analysis is based on the information currently available and could be subject to changes as a result of additional information that should become available for the group in 2018. In principle, the group does not expect the adoption of IFRS 9 to have significant impacts on the statement of financial position and equity.

a) Classification and measurement

The Group does not expect the application of the classification and measurement requirements of IFRS 9 to have significant impacts on its financial statements and equity.
The assets in the financial statements measured at amortised cost will continue to be measured in the same way.

The group intends to maintain equity investments in unlisted companies in the portfolio in the near future. The group currently measures minority interests at cost. Starting from 1 January 2018, these equity investments will be measured at fair value. Changes eventually recognised under purchase cost and fair value, will be accounted as a contra-item to equity: no significant impacts are expected. The group will then apply the option of presenting fair value changes under other comprehensive income.

b) Impairment

IFRS 9 requires the group to record expected credit losses on all bonds in the portfolio, loans and trade receivables, taking as a reference either a 12-month period or the entire contractual duration of the instrument (e.g. lifetime expected loss). The group, having only trade receivables in the financial statements, will apply the simplified approach and, therefore, will record expected losses on all trade receivables on the basis of their residual contractual duration. The group does not expect significant impacts from adopting this standard. The associated deferred taxes will, in any case, be calculated on said higher allocation.

c) Hedge accounting

The group has established that all existing hedging relationships which are currently designated as effective hedges will continue to qualify for hedge accounting in line with IFRS 9. The group has chosen not to apply IFRS 9 retrospectively to hedges for which, at the moment of designation of the hedge in accordance with IAS 39, forward points had been excluded. Given that IFRS 9 does not modify the general principle on the basis of which an entity accounts for effective hedging relationships, the application of the requirements of IFRS 9 for the purposes of defining hedges will not have significant impacts on the group's financial statements.

Discretionary judgments and significant accounting estimates

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.

Revenue recognition and work in progress valuation

The Group operates in a kind of business in which complex contractual agreements are common, these are recognised using the percentage of completion method. Revenue and related margin are recognised in profit or loss reflecting project progress and the profitability which will be expected for the entire contract once it is completed, consequently, for the purposes of correctly recognising work in progress and revanue related to projects 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 both the expected margin and the project progress and, consequently, project revenues. 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. 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. 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.

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. Please refer to the paragraph "Credit risk management" for further information.

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 2017.
The nature and impact of each new accounting standard and amendment are described below:

IAS 7 Disclosure Initiative – Amendments to IAS

The changes to IAS 7 are part of the wider Disclosure initiative project that the International Accounting Standard Board (IASB) published in 2013.
In particular, the amendments to IAS 7 require entities to provide a disclosure that allows financial statements users to evaluate the changes occurred, from the start to the end of the year, in liabilities deriving from financing activities, including non-cash changes and the changes instead stemming from cash flows.
It should be noted that, in relation to financial liabilities deriving from financing activities, the change in the year refers exclusively to cash flow changes, like that of the previous year, represented primarily by the payment of the dividend of € 36 million.

Amendments to IAS 12 Income Taxes: Recognition of Deferred Tax Assets for Unrecognised Losses

The amendments to IAS 12 - Income Taxes relate to the recognition and measurement of Deferred Tax Assets (DTA). 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. The group applied these amendments retrospectively. However, their application did not have any effects on the Group’s financial position and results given that there are no deductible temporary differences or assets that fall under the scope of this amendment.

Annual cycle of improvements - 2014-2016

Amendments to IFRS 12 Disclosure of Interests in Other Entities: Clarification of the scope of disclosure requirements in IFRS 12.

The amendments clarify, in particular, that the disclosure requirements of IFRS 12, other than those set out in paragraphs B10-B16, apply to an entity’s interests in a subsidiary, joint venture or an associate (or to the share of an interest in a joint venture or in an associate) which is classified (or included in a classified disposal group) as available for sale.
Although these new standards and amendments were applied for the first time in 2017, they have not had any 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 corresponds to that 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)	**31.12.2017**	31.12.2016
Italy	273,513	308,403
Rest of Europe	398,549	390,653
North Africa and the Middle East	135,697	122,057
Americas	325,577	255,194
Asia/Pacific	227,631	251,079
Total	**1,360,967**	**1,327,386**

Property, plant and equipment and intangible assets (€'000)	**31.12.2017**	31.12.2016
Italy	104,149	105,961
Rest of Europe	14,620	13,745
North Africa and the Middle East	1,584	778
Americas	10,530	12,010
Asia/Pacific	1,971	1,966
Total	**132,854**	**134,460**

14 Notes to the consolidated 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 2017 (€'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)	-	-	-	114	17	**131**
Subsidiaries						
Alifana Due S.c.r.l.	-	-	-	341	-	**341**
Associates						
I.M. Intermetro S.p.A. (in liq.)	-	-	-	387	-	**387**
Metro 5 S.p.A.	-	19,285	-	5,937	-	**25,222**
Metro Service A.S.	-	-	-	1,705	-	**1,705**
SP M4 S.C.p.A. (in liq.)	-	-	232	-	-	**232**
SPV Linea M4 S.p.A.	-	6,160	-	-	-	**6,160**
Metro Brescia S.r.l.	-	-	-	522	-	**522**
Consortia						
Saturno consortium	-	-	-	11,903	-	**11,903**
Ascosa Quattro consortium	-	-	-	1,280	-	**1,280**
Ferroviario Vesuviano consortium	-	-	-	2,085	-	**2,085**
MM4 consortium	-	182	-	23,924	-	**24,106**
San Giorgio Volla Due consortium	-	-	-	786	4	**790**
San Giorgio Volla consortium	-	-	-	1,421	-	**1,421**
Other group companies						
Hitachi Rail Inc.	-	-	-	997	-	**997**
Hitachi India Pvt Ltd Rail Systems Co.	-	-	-	1,042	-	**1,042**
Hitachi Rail Italy S.p.A.	-	-	-	2,764	-	**2,764**
Total	**-**	**25,627**	**232**	**55,208**	**21**	**81,088**
% of the total corresponding financial statements caption		**59%**	**1%**	**7%**	**0.02%**	

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						
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**
J.V.						
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 LIABILITIES AT 31 DECEMBER 2017 (€'000)	**Non-current loans and borrowings**	**Other non-current financial liabilities**	**Current loans and borrowings**	**Trade payables**	**Other current financial liabilities**	**Total**
Ultimate parent						
Hitachi Rail Europe Ltd	-	-	-	51	-	**51**
Subsidiaries						
Alifana S.c.r.l.	-	-	-	134	3	**137**
Alifana Due S.c.r.l.	-	-	-	157	-	**157**
Associates						
Metro Service A.S.	-	-	-	6,842	-	**6,842**
SPV Linea M4 S.p.A.	-	-	-	157	-	**157**
MetroB S.r.l.	-	-	-	-	370	**370**
Pegaso S.c.a.r.l. (in liq.)	-	-	-	83	-	**83**
Consortia						
Saturno consortium	-	-	-	968	-	**968**
Ascosa Quattro consortium	-	-	-	885	8	**893**
Ferroviario Vesuviano consortium	-	-	-	64	21	**85**
San Giorgio Volla consortium	-	-	-	5	8	**13**
MM4 consortium	-	-	-	161	-	**161**
Other group companies						
Hitachi Systems CBT S.p.A.	-	-	-	937	-	**937**
Hitachi Rail Italy S.p.A.	-	-	-	19,429	-	**19,429**
Total	**-**	**-**	**-**	**29,873**	**410**	**30,283**
% of the total corresponding financial statements caption				**7%**	**0.4%**	

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%**	

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 and impairment losses	-	(2,043)	(4,046)	(311)	-	(953)	(7,353)
Opening/average net exchange rate losses	-	-	-	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**
Acquisitions	-	-	955	504	239	417	2,115
Capitalisations	-	1,936	-	-	71	-	2,007
Amortisation and impairment losses	-	(2,245)	(1,895)	(373)	-	(754)	(5,267)
Opening/average net exchange rate losses	-	-	-	(18)	(9)	(25)	(52)
Transferred from work-in-progress	-	-	-	-	(250)	250	-
Reclassifications	-	-	-	-	(117)	117	-
Grants	-	(560)	-	-	-	-	(560)
At 31 December 2017	**34,569**	**4,509**	**5,430**	**658**	**342**	**1,997**	**47,505**

Intangible assets amount to €47,505 thousand (31 December 2016: €49,262 thousand), while investments of the year are equal to €4,122 thousand and amortisation and impairment losses to €5,267 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 2017 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 (2018 – 2022) 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 2.1% calculated considering the inflation outlook in the Countries where the Group primarily operates (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 2017 the WACC for the Group is 6.88% compared to 7.39% used in previous year.
  The comparables panel in 2017 is the same as the previous year, with the exception of Faiveley Transport SA acquired in 2017 from Westinghouse Air Brake Technologies Corporation and replaced with the latter.
  The performed test has pointed out a level of coverage, in addition, there is no other external impairment indicators evidence.
  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.
  A sensitivity analysis was performed also on assumptions used for the business plan set as basis for the impairment test. In detail, decreasing by 10% both revenues and EBITDA for each business plan year, a significant coverage can be noted related to the recoverability of the assets submitted to 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 entirely 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.
- the patents and similar rights relate to the development of various tools; more specifically, during the year, investments are attributable mainly to the projects *"Customer Relationship Management (CRM)"* for €280 thousand, *"Clear Case & Clear ReQuest (CC & CR)"* for €101 thousand, *"Implementazione SAP in Taiwan Branch"* for €107 thousand, *"Implementazione SAP WM Module"* in Tito for €105 thousand and other minor software for a total amount of €362 thousand.

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)
Depreciation and impairment losses	(2,317)	(2,196)	(1,990)	-	(3,094)	(9,597)
Opening/average net exchange rate losses	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**
Acquisitions	165	963	1,625	3,226	5,315	11,294
Capitalisations	-	-	1,040	343	-	1,383
Sales	(89)	(44)	-	(310)	(77)	(520)
Depreciation and impairment losses	(2,305)	(2,124)	(2,191)	-	(3,853)	(10,473)
Opening/average net exchange rate losses	(472)	(359)	(23)	(210)	(469)	(1,533)
Transfer from assets under construction	85	75	511	(750)	79	-
Reclassifications	256	500	30	(1,781)	995	-
At 31 December 2017	**56,371**	**5,519**	**7,625**	**2,892**	**12,942**	**85,349**

Property, plant and equipment amount to €85,349 thousand (31 December 2016: €85,198 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 €12,677 thousand and mainly relate to the following:

- for €6,513 thousand to Ansaldo STS S.p.A. for equipment purchased for some branches (in particular in Saudi Arabia amounting to €1,412 thousand, Peru for €315 thousand and Taiwan for €266 thousand), for the Tito plant and the Piossasco facility;
- Ansaldo STS France group for the purchase of technical laboratory equipment and production tools for the Riom and Les Ulis facilities for €2,775 thousand;
- Ansaldo STS USA INC. for maintenance at the Batesburg plant and works at the Pittsburgh facility for €2,297 thousand.

Depreciation and impairment losses of the year amount to €10,473 thousand (31 December 2016; €9,597 thousand), while net exchange rate losses total €1,533 thousand, mainly opening balances.

In general, the property, plant and equipment booked to the statement of financial position assets 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 2016	**47,511**
Acquisitions/subscriptions and capital increases	3,128
Sales/returns	(62)
At 31 December 2017	**50,577**
Equity-accounted investments	**28,176**
Total equity investments	**78,753**

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 %	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	31.12.2016	IT GAAP	66,333	797,625	731,292	Euro	24.60%	N/A	N/A	N/A	N/A	16,318
International Metro Service S.r.l.	Milan (Italy)	Transportation	31.12.2016	IT GAAP	4,943	5,056	113	Euro	49.00%	N/A	N/A	N/A	N/A	2,422
Pegaso S.c.r.l. (in liq.)	Rome (Italy)	Construction	31.12.2016	IT GAAP	260	3,959	3,699	Euro	46.87%	N/A	N/A	N/A	N/A	122
Alifana S.c.a.r.l.	Naples (Italy)	Transportation	31.12.2017	IT GAAP	26	487	461	Euro	65.85%	N/A	N/A	N/A	N/A	17
Alifana Due S.c.r.l.	Naples (Italy)	Transportation	31.12.2017	IT GAAP	26	838	812	Euro	53.34%	N/A	N/A	N/A	N/A	14
Metro Brescia S.r.l.	Brescia (Italy)	Transportation	31.12.2016	IT GAAP	6,555	79,197	72,642	Euro	19.80%	N/A	N/A	N/A	✓	1,298
Balfour Beatty Ansaldo Systems JV SDN BHD	Kuala Lumpur (Malaysia)	Transportation	31.12.2016	IFRS	19,963	28,858	8,895	MYR	40.00%	N/A	N/A	N/A	N/A	7,985
Total equity-accounted investments														**28,176**
Metro C S.c.p.A.	Rome (Italy)	Transportation	31.12.2016	IT GAAP	149,518	347,412	197,894	Euro	14.00%	N/A	N/A	N/A	✓	21,000
I.M. Intermetro S.p.A. (in liq.)	Rome (Italy)	Transportation	31.12.2016	IT GAAP	1,765	5,278	3,513	Euro	21.26%	N/A	N/A	N/A	✓	523
Società Tram di Firenze S.p.A.	Florence (Italy)	Transportation	31.12.2016	IT GAAP	(4,067)	340,268	344,335	Euro	2.418%	N/A	N/A	N/A	N/A	266
Iricav uno consortium	Rome (Italy)	Transportation	31.12.2016	IT GAAP	520	4,278	3,758	Euro	17.44%	N/A	N/A	N/A	✓	91
Iricav due consortium	Rome (Italy)	Transportation	31.12.2017	IT GAAP	516	96,745	96,229	Euro	17.05%	N/A	N/A	N/A	✓	88
Ferroviario vesuviano consortium	Naples (Italy)	Transportation	31.12.2016	IT GAAP	155	223,137	222,982	Euro	33.34%	N/A	N/A	N/A	N/A	51
S. Giorgio Volla consortium	Naples (Italy)	Transportation	31.12.2017	IT GAAP	72	6,149	6,077	Euro	25.00%	N/A	N/A	N/A	N/A	18
S. Giorgio Volla 2 consortium	Naples (Italy)	Transportation	31.12.2017	IT GAAP	72	78,585	78,513	Euro	25.00%	N/A	N/A	✓	N/A	18
Cris consortium	Naples (Italy)	Research	31.12.2017	IT GAAP	2,445	2,636	191	Euro	1.00%	N/A	N/A	N/A	N/A	24
Ascosa Quattro consortium	Rome (Italy)	Transportation	31.12.2016	IT GAAP	57	66,324	66,267	Euro	24.92%	N/A	N/A	✓	N/A	14
Siit S.c.p.a	Genoa (Italy)	Research	31.12.2016	IT GAAP	617	1,937	1,320	Euro	2.33%	N/A	N/A	N/A	N/A	14
Saturno consortium	Rome (Italy)	Transportation	31.12.2016	IT GAAP	31	1,758,577	1,758,546	Euro	33.34%	N/A	✓	N/A	N/A	10
Train consortium	Rome (Italy)	Transportation	31.12.2016	IT GAAP	1,180	25,832	24,652	Euro	4.68%	N/A	N/A	N/A	✓	6
Sesamo S.c.a.r.l.	Naples (Italy)	Transportation	31.12.2016	IT GAAP	92	855	763	Euro	2.00%	N/A	N/A	N/A	N/A	2
Isict consortium	Genoa (Italy)	Research	31.12.2016	IT GAAP	53	172	119	Euro	14.29%	N/A	N/A	N/A	✓	6
Cosila consortium (in Liq.)	Naples (Italy)	Research	31.12.2016	IT GAAP	93	115	22	Euro	1.11%	N/A	N/A	N/A	N/A	1
MM4 consortium	Milan (Italy)	Transportation	31.12.2017	IT GAAP	200	31,950	31,750	Euro	17.68%	N/A	N/A	N/A	✓	35
Radiolabs consortium	Rome (Italy)	Research	31.12.2016	IT GAAP	239	1,794	1,555	Euro	20.02%	N/A	N/A	✓	N/A	52
SPV Linea M4 S.p.A.	Milan (Italy)	Transportation	31.12.2016	IT GAAP	127,228	295,604	168,376	Euro	5.55%	N/A	N/A	N/A	N/A	10,868
Metro de Lima Linea 2 S.A.	Lima (Peru)	Transportation	31.12.2017	IFRS	139,294	379,740	240,446	USD	16.90%	N/A	N/A	N/A	✓	16,639
TOP IN S.c.a.r.l.	Naples (Italy)	Transportation	31.12.2016	IT GAAP	101	194	93	Euro	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	31.12.2016	BRAZILGAAP	245	246	1	BRL	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	31.12.2016	IT GAAP	89	198	109	Euro	12.00%	N/A	N/A	N/A	✓	5
Dattilo S.c.a.r.l.	Naples (Italy)	Transportation	31.12.2016	IT GAAP	100	353	253	Euro	14.00%	N/A	N/A	N/A	✓	14
MetroB S.r.l.	Rome (Italy)	Transportation	31.12.2017	IT GAAP	19,844	19,902	58	Euro	2.47%	N/A	N/A	N/A	✓	494
Total equity investments recognised at cost														**50,577**
Total equity investments														**78,753**

Equity investments at year end amounted to €78,753 thousand (31 December 2016: €73,047 thousand), of which €28,176 thousand (31 December 2016: €25,536 thousand) was measured using the equity method and €50,577 thousand (31 December 2016: €47,511 thousand) at cost.
The €3,066 thousand variation on 2016, which relates to equity investments measured at cost, is due to the subscription of a further equity investment in SPV Linea M4 S.p.A. (€3,128 thousand) which will construct Line M4 of the Milan metro under concession and, for €-61 thousand, to the liquidation of the pre-existing SP M4 S.c.p.a., a vehicle established before the entry of the public shareholder and which made arrangements for liquidation following the establishment of the aforementioned company which deals with line works and operation.
The change of €2,640 thousand compared to 2016, relating to equity-accounted investments, was due primarily to the results recorded by the same investees (€5,798 thousand), details of which are provided in note 15.10, partially offset by the negative impact of changes in the equity of Metro 5 S.p.A. for €3,023 thousand.

14.5 Loans and receivables and other non-current assets

(€'000)	**31.12.2017**	31.12.2016
Guarantee deposits	3,245	3,163
Other	14,584	16,800
Other non-current related party loans and receivables	25,627	25,522
Non-current financial assets	**43,456**	**45,485**
Prepayments	13,794	16,090
Other non-current assets	**13,794**	**16,090**

Non-current financial assets at 31 December 2017 amount to €43,456 thousand, down by €2,029 thousand on 2016 (€45,485 thousand), while non-current assets amount to €13,794 thousand (31 December 2016: €16,090 thousand).

They may be analysed as follows:
- guarantee deposits, mainly for advances to lessors (€3,245 thousand);
- for the item other, primarily the "Pittsburgh facilities lease" of the US subsidiary (€11,536 thousand) relating to USA subsidiaries for the operating leasing of the offices;
- other non-current related party loans and receivables:
  - €19,285 thousand related to the shareholder loan (principal of €18,783 thousand and accrued interest of €502 thousand) of Metro 5 S.p.A. following the agreements to construct the related section of the Milan metro. It should be noted that interest of €4,581 thousand was reclassified to the current part, as collection is forecast in the next year;
  - €6,160 thousand related to the shareholder loan (principal of €5,731 thousand and accrued interest of €429 thousand) of SPV Linea M4 S.p.A. following the agreements to construct the related section of the Milan metro;
  - €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 (€11,258 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)	31.12.2017	31.12.2016
Raw materials, consumables and supplies	22,720	24,782
Work-in-progress and semi-finished products	11,799	12,668
Finished goods	9,915	9,790
Advances to suppliers	66,561	77,827
Total	**110,995**	**125,067**

Inventories amount to €110,995 thousand, down by €14,072 thousand on the balance at 31 December 2016 (€125,067 thousand), relating primarily to the fall in the item advances to suppliers and the lower value of raw materials. Inventories are shown net of the relevant allowance of €3,802 thousand (31 December 2016: €3,269 thousand).

14.7 Work in progress and progress payments and advances from customers

(€'000)	31.12.2017	31.12.2016
Advances from customers	(63,090)	(41,789)
Progress payments	(1,238,554)	(1,886,966)
Work-in-progress	1,719,784	2,328,511
Provision for expected losses to complete contracts	(10,597)	(12,803)
Allowance for write-down	(27,953)	(28,088)
Work-in-progress (net)	**379,590**	**358,865**
Advances from customers	(266,885)	(310,480)
Progress payments	(2,610,525)	(2,009,246)
Work-in-progress	2,231,603	1,735,070
Provision for expected losses to complete contracts	(10,079)	(12,006)
Allowance for write-down	(27,150)	(1,350)
Progress payments and advances from customers (net)	**(683,036)**	**(598,012)**
Work-in-progress, net of progress payments and advances from customers	**(303,446)**	**(239,147)**

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 decreased by €64,299 thousand; this is based mainly on the higher turnover in the year compared to the volume of production realised.
It should be noted that, in the last few months of the year, as a result of the dispute initiated with the Swedish customer AB Storstockholms Lokaltrafik for the unilateral resolution of the contractual relationship, as detailed more extensively in the section "Disputes", the contractual risk was measured by allocating an amount of around €35 million to the Allowance for write-down.
It should also be noted that 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, €10,597 thousand reflects the decrease in "work in progress (net)" and €10,079 thousand to the increase in "progress payments and advances from customers (net)".
Total advances from customers amount to €329,975 thousand (31 December 2016: €352,269 thousand).

14.8 Trade receivables and loan assets

(€'000)	31.12.2017		31.12.2016	
	Trade receivables	**Loan assets**	Trade receivables	Loan assets
Third parties	681,456	30,401	666,476	33,966
Total third parties	**681,456**	**30,401**	**666,476**	**33,966**
Related parties	55,208	232	62,376	267
Total	**736,664**	**30,633**	**728,852**	**34,233**

The value of trade and financial receivables corresponds to their fair value.
In general, total trade receivables at 31 December 2017 (€736,664 thousand) increased slightly from the balance at the previous year end (€728,852 thousand).
Specifically, trade receivables from third parties increased (€681,456 thousand, compared to €666,476 thousand at 31 December 2016), mainly due to the positions of the parent.
Third party loan assets at 31 December 2017 amounted to €30,401 thousand (31 December 2016: €33,966 thousand) and mainly relate to amounts due from the parent and Ansaldo STS India.

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;
- €1,958 thousand reflects the short-term deposits made by Ansaldo STS India with leading banks.

Related party loan assets amount to €232 thousand (31 December 2016: €267 thousand) and relate to an interest-bearing loan granted to S.P. M4 S.C.p.a..

It should be noted that, in 2017, the group did not factor without recourse receivables not yet due (€11,939 thousand relating to the ultimate parent in 2016).

14.9 Tax assets and liabilities

(€'000)	31.12.2017		31.12.2016	
	Assets	**Liabilities**	Assets	Liabilities
Direct taxes	35,782	6,021	22,649	8,978
Total	**35,782**	**6,021**	**22,649**	**8,978**

Direct tax assets at 31 December 2017 amount to €35,782 thousand, up €13,133 thousand on the €22,649 thousand at 31 December 2016, mainly attributable to higher advances paid by the ultimate parent Ansaldo STS France.
A significant portion of these direct tax assets pertain to the parent and are composed of foreign tax assets (€15,829 thousand; 31 December 2016: €12,729 thousand) and a tax credit in connection with the reimbursement claimed pursuant to article 2.1-quater of Decree Law no. 201/2011, related to the lower IRES due for the 2007-2011 period as a result of the IRAP deductibility on personnel expense (€1,632 thousand).

Direct tax liabilities amount to €6,021 thousand at 31 December 2017, down €2,957 thousand on the balance of €8,978 thousand at 31 December 2016. They mainly relate to the parent Ansaldo STS S.p.A. (€4,453 thousand), ASTS France S.A.S.'s subsidiaries (€526 thousand) and companies in the Asia Pacific Group (€648 thousand).

14.10 Other current assets

(€'000)	**31.12.2017**	31.12.2016
Prepayments - current portion	9,040	12,314
Research grants	18,130	18,944
Employees	2,361	2,006
Indirect and other tax assets	33,906	31,146
Derivatives	10,715	10,515
Other assets	10,213	9,675
Total other assets	**84,365**	**84,600**
Related parties	21	4
Total	**84,386**	**84,604**

Other current third party assets amounted to €84,365 thousand at 31 December 2017, virtually in line with the balance of €84,600 thousand at 31 December 2016. The main changes relate to the increase in indirect taxes due to the higher VAT credit of the Parent for its own positions and those of the branches, offset by the reduction in deferred income.
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 €21 thousand, compared to €4 thousand in the previous year.
For additional information on Derivatives, reference should be made to note 14.21.

14.11 Cash and cash equivalents

(€'000)	**31.12.2017**	31.12.2016
Cash-in-hand	115	109
Bank accounts	327,211	305,477
Total	**327,326**	**305,586**

Cash and cash equivalents at 31 December 2017 amount to €327,326 thousand, up €21,740 thousand.
They relate mainly to Ansaldo STS S.p.A. (€184,463 thousand), Ansaldo STS France group (€26,743 thousand), the Asia/Pacific subsidiaries (€31,497 thousand), Ansaldo STS USA group (€46,981 thousand), Ansaldo Railway System Trading (Beijing) Company Ltd. (€17,892 thousand) and Ansaldo STS Sweden (€14,080 thousand).
Cash and cash equivalents are totally available and there are no disposal costs.

14.12 Share capital

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.
It did not undergo any changes over the last two years.
The parent has no treasury shares in the portfolio at 31 December 2017.

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 2017:

Shareholder	% held
HITACHI RAIL ITALY INVESTMENTS	50.772
PAUL E. SINGER (as general partner, directly and indirectly, of the Limited Partnership Elliott International and The Liverpool Limited Partnership)	25.665
UBS	5.034
LITESPEED MASTERFUND	3.766

14.13 Retained earnings

(€'000)	
At 31 December 2016	**544,451**
Changes in consolidation scope and companies measured at equity	(4,091)
Profit for the year	64,975
At 31 December 2017	**605,335**

At 31 December 2017, retained earnings, including profit for the year and consolidation reserves, amounted to €605,335 thousand. The variation is mainly due to the group's profit for the year of €64,975 thousand given no dividends were distributed in the year.

14.14 Other reserves

(€'000)	Legal reserve	Hedging reserve	Stock grant reserve	Deferred tax reserve	Translation reserve	Other	Total
31 December 2016	**20,000**	**3,042**	**8,115**	**699**	**36,755**	**(5,436)**	**63,175**
Change in the consolidation scope	-	-	-	-	674	-	**674**
Transfers to profit or loss	-	(25,737)	-	-	-	-	**(25,737)**
Net exchange rate losses	-	-	-	-	(37,512)	-	**(37,512)**
Increase/Decrease	-	-	(417)	-	-	(1,062)	**(1,479)**
Fair value gains (losses)	-	24,127	-	309	-	-	**24,436**
31 December 2017	**20,000**	**1,432**	**7,698**	**1,008**	**(83)**	**(6,498)**	**23,557**

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 2016.

Hedging reserve
This reserve comprises the fair value gains of the derivatives the group uses to hedge its foreign currency exposure equal to €1,432 thousand at 31 December 2017 due to the decreases of the year for €1,610 thousand, gross of deferred tax effects. When the hedged underlying affects profit or loss, 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 €7,698 thousand at 31 December 2017 and the change compared to last year (€-417 thousand) is due, for €1,621 thousand to the amount allocated for the 2017 objectives and, for €2,038 thousand, to the 2014 awarding of shares related to the 2014-2016 stock grant plan.

Deferred tax reserve
The deferred tax reserve amounts to €1,008 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 2017 is equal to €-83 thousand.
The variation showed in the Consolidated Statement of comprehensive income equal to €37,524 thousand include the impact on equity attributable to non-controlling interests for €12 thousand. The largest amounts are generated by the consolidation of the subsidiaries Ansaldo STS USA and Ansaldo STS Australia and by the Parent for the branches within its competence in non-Euro areas.

Other
This caption also includes the reserve for defined benefit plans (€-8,576 thousand), to which the change for the year refers (€-1,062 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 2016	**220**
Loss for the year attributable to non-controlling interests	(107)
Translation reserve attributable to non-controlling interests	(12)
At 31 December 2017	**101**

14.16 Loans and borrowings

Changes of the year are as follows:

(€'000)	31.12.2017			31.12.2016		
	Current	**Non-current**	**Total**	Current	Non-current	Total
Bank loans and borrowings	10	-	10	10	-	10
Other loans and borrowings	414	-	414	1,770	-	1,770
Total	**424**	**-**	**424**	**1,780**	**-**	**1,780**

(€'000)	31.12.2016	**Increases**	**Decreases**	**31.12.2017**
Bank loans and borrowings	10	-	-	10
Other loans and borrowings	1,770	414	(1,770)	414
Total	**1,780**	**414**	**(1,770)**	**424**

Other loans and borrowings

Third party loans and borrowings amounted to €414 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 2017 (€'000)	**Floating rate**	**Fixed rate**	**Floating rate**	**Fixed rate**	**Floating rate**	**Fixed rate**
Within one year	10	-	414	-	424	-
2-5 years	-	-	-	-	-	-
After five years	-	-	-	-	-	-
Total	**10**	**-**	**414**	**-**	**424**	**-**

	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**	**-**

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

(€'000)		31.12.2017	31.12.2016
A	Cash-in-hand	115	109
B	Other cash and cash equivalents (bank current accounts)	327,211	305,477
C	Securities held for trading	-	-
D	**CASH AND CASH EQUIVALENTS (A+B+C)**	**327,326**	**305,586**
E	**CURRENT LOAN ASSETS**	**30,633**	**34,233**
F	Current bank loans and borrowings	10	10
G	Current portion of non-current loans and borrowings	-	-
H	Other current loans and borrowings	414	1,770
I	**CURRENT FINANCIAL DEBT (F+G+H)**	**424**	**1,780**
J	**NET CURRENT FINANCIAL POSITION (I-E-D)**	**(357,535)**	**(338,039)**
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)**	**(357,535)**	**(338,039)**

14.17 Provisions for risks and charges and contingent liabilities

(€'000)	Product warranties	Disputes with employees	Other	Total
At 31 December 2016	**11,848**	**1,038**	**1,154**	**14,040**
Reclassifications	259	-	(259)	-
Accruals	4,178	1,706	340	6,224
Reversals	(2,131)	(240)	(196)	(2,567)
Utilisation	(1,368)	(77)	(143)	(1,588)
Other changes	(142)	-	-	(142)
At 31 December 2017	**12,644**	**2,427**	**896**	**15,967**
Current	*11,848*	*1,038*	*1,154*	*14,040*
Non-current	-	-	-	-
At 31 December 2016	**11,848**	**1,038**	**1,154**	**14,040**
Current	*12,644*	*2,427*	*896*	*15,967*
Non-current	-	-	-	-
At 31 December 2017	**12,644**	**2,427**	**896**	**15,967**

The provision for risks and charges totalled €15,967 thousand at 31 December 2017, up by €1,927 thousand on the previous year end (€14,040 thousand). This change is mainly due to the accruals for product warranties of the French subsidiary (€3,710 thousand) and for the provision for disputes with employees (€1.629 thousand) recognised by the ultimate 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 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)	**31.12.2017**	31.12.2016
Italian post-employment benefits	19,497	18,294
Defined benefit pension plans	18,075	17,754
Total	**37,572**	**36,048**

	Italian post-employment benefits		**Defined benefit plans**	
(€'000)	**31.12.2017**	31.12.2016	**31.12.2017**	31.12.2016
Present value of obligations	19,497	18,294	18,075	17,754
Fair value of plan assets	-	-	-	-
Unrecognised actuarial gain (loss)	-	-	-	-
Total	**19,497**	**18,294**	**18,075**	**17,754**

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

	31.12.2017	
(€'000)	**Italian post-employment benefits**	**Defined benefit plans**
At 31 December 2016	**18,294**	**17,754**
Current costs	932	1,170
Benefits paid	(666)	(960)
Other changes	(1)	(25)
Actuarial losses (gains) taken to equity	938	136
of which:		
Actuarial losses (gains) taken to equity following changes to financial assumptions	*630*	*119*
Actuarial losses (gains) taken to equity following experience-based adjustments	*308*	*17*
At 31 December 2017	**19,497**	**18,075**

The amount recognised in the income statement is as follows:

	Italian post-employment benefits		**Defined benefit plans**	
(€'000)	**31.12.2017**	31.12.2016	**31.12.2017**	31.12.2016
Current service costs	657	519	920	704
Interest expense	275	268	250	286
Total	**932**	**787**	**1,170**	**990**

The following main actuarial assumptions were used:

	Italian post-employment benefits		**Defined benefit plans**	
	31.12.2017	31.12.2016	**31.12.2017**	31.12.2016
Discount rate (p.a.)	1.5%	1.5%	1.4%	1.4%
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.)	19,900	19,117	18,946	17,177
Inflation rate	19,206	19,796	17,183	18,935
Turnover rate	19,514	19,480	17,728	18,341

The average term of the Italian post-employment benefits is 14 years and 18 years for other defined benefit plans. 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

	31.12.2017		31.12.2016	
(€'000)	Current	Non-current	Current	Non-current
Employees	34,777	8,295	39,316	8,178
Indirect and other tax liabilities	13,563	-	14,471	-
Amounts due to social security institutions	16,032	-	17,401	-
Derivatives	2,740	-	17,008	-
Other liabilities	34,064	6,083	31,750	4,730
Total other third party liabilities	**101,176**	**14,378**	**119,946**	**12,908**
Other related party liabilities	410	-	410	-
Total	**101,586**	**14,378**	**120,356**	**12,908**

Other current and non-current third party liabilities amount to €115,554 thousand, down €17,300 thousand (€132,854 thousand at 31 December 2016). As highlighted in the table, the reduction relates primarily to the items derivatives and payables to employees.
For additional information on derivatives, reference should be made to note 14.21.
It is pointed out that the caption 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 at 31 December 2016).

14.20 Trade payables

(€'000)	31.12.2017	31.12.2016
Trade payables	383,766	438,448
Total third party trade payables	**383,766**	**438,448**
Related party trade payables	29,873	19,671
Total	**413,639**	**458,119**

The nominal value of trade payables corresponds to their fair value.
Total trade payables at 31 December 2017 of €413,639 thousand decreased on the previous year's balance of €458,119 thousand.
The decrease is due essentially to the higher payments compared to what has been booked in increase, based on higher collections accounted for in the final part of the year.

14.21 Derivatives

Derivative assets and liabilities may be analysed as follows:

	31.12.2017		31.12.2016	
(€'000)	**Assets**	**Liabilities**	Assets	Liabilities
Fair value hedges	1,712	864	4,043	247
Cash flow hedges	9,003	1,876	6,472	16,761
Currency hedges	**10,715**	**2,740**	**10,515**	**17,008**

Derivative assets at 31 December 2017 are practically in line with the previous year's balance, while derivative liabilities decreased due to the closing of cash flow hedge positions.

Fair value measurement

The group does not hold listed derivative instruments at 31 December 2017. 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. At 31 December 2017, the group has contracts in place for the following notional foreign currency amounts:

(€'000)	**31.12.2017**	31.12.2016
Euro	65,370	56,854
US dollar	252,790	345,298
Pound sterling	48,408	55,729
Swedish krona	44,475	1,648
Australian dollar	12,251	6,783
Hong Kong dollar	177	455
Indian rupee	4,826	5,164
United Arab Emirates dirham	11,352	12,921

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	3,398
Between two and five years	10,834
After five years	11,027
	25,259

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.

The group has the following guarantees at 31 December 2017:

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	823,089.23
Personal guarantees issued by Ansaldo STS (parent company guarantees) to customers for trading transactions	506,884.17
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	2,069,671.62
of which, counter-guaranteed by Hitachi	*296,828.09*
of which, counter-guaranteed by Ansaldo STS	*497,702.08*
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)	40,097.15
Total	**3,439,742.18**

Parent Company guarantee Hitachi Ltd

At 31 December 2017, the company has parent company guarantees issued by the ultimate parent Hitachi ltd (€823 million) to foreign customers of the group as part of commercial contracts.

Parent company guarantee - Ansaldo STS S.p.A.

The parent company guarantee (PCG) represents the guarantee given by the ultimate 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 ultimate parent Ansaldo STS SpA takes over as guarantor with the banks, for a total of approximately €507 million at 31 December 2017, to the guarantees released by the ultimate parent to the banks for the credit lines granted to Ansaldo STS group companies totalling €516 million at 31 December 2017.

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 2017, it accounted for approximately €19 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 €1,326 million in the guarantee portfolio at 31 December 2017.

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 2017, it accounted for approximately €47 million in the guarantee portfolio.

Advance payment bonds

Advance payment bonds, also called down payment bonds, enable the customer to recover an advance payment and progress payments stated in the contractual scheme, 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 geographical areas. At 31 December 2017, these guarantees amounted to around €567 million.

The Parent Company Hitachi Ltd has counterguaranteed part of the guarantees by the use of guarantees granted by insurance companies for the projects Honolulu and Baltimore (€297 million).
The Italian Parent Company has counterguaranteed in favour to its subsidiaries a total amount for €498 million related to commercial transactions performed by them.

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 2017, this type of guarantee amounted to approximately €98 million.

15 Notes to the income statement

15.1 Impact of related party transactions on profit or loss

31 December 2017 (€'000)	Revenue	Other operating income	Costs	Financial income	Financial expense	Other operating expense
Ultimate parent						
Hitachi Rail Europe Ltd	31	-	8	-	-	-
Hitachi Ltd (Rail)	815	-	504	-	-	-
Subsidiaries						
Alifana S.c.r.l.	755	-	52	-	-	-
Alifana Due S.c.r.l.	294	14	795	-	-	-
Associates						
I.M. Intermetro S.p.A. (in liq.)	8	-	-	-	-	-
Metro 5 S.p.A.	1,696	1,333	44	-	-	-
Pegaso S.c.r.l. (in liq.)	-	-	258	-	-	-
SPV Linea M4 S.p.A	-	-	157	-	-	-
SP M4 S.C.p.A (in liq.)	-	-	32	10	-	-
Metro Brescia S.r.l.	225	12	-	-	-	-
Metro Service A.S.	6,433	-	52,227	-	-	-
Joint Ventures						
Balfour Beatty Ansaldo Syst. JV SDN BHD	9,850	-	9	-	-	-
Consortia						
Ascosa Quattro consortium	5,104	-	836	-	-	-
Ferroviario Vesuviano consortium	2,026	-	282	-	-	-
Saturno consortium	15,029	39	1,037	-	-	-
San Giorgio Volla 2 consortium	186	-	219	-	-	-
San Giorgio Volla consortium	(7)	-	4	-	-	-
MM4 consortium	22,803	90	320	-	-	-
Cris consortium	-	-	3	-	-	-
Other group companies						
Hitachi Rail Italy S.p.A.	9,192	-	31,027	-	-	-
Hitachi Rail Inc.	2,260	-	-	-	-	-
Hitachi Rail India Pvt Ltd Rail Systems Company	604	-	-	-	-	-
Hitachi Australia Pvt Ltd	-	-	18	-	-	-
Hitachi Systems CBT S.p.A.	-	-	1,659	-	-	-
Hitachi High Technologies Europe Gmbh	386	-	-	-	-	-
Total	**77,690**	**1,488**	**89,491**	**10**	**-**	**-**
% of the total corresponding financial statements caption	**6%**	**6%**	**10%**	**0.04%**		

31 December 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
I.M. Intermetro S.p.A. (in liq.)	1	-	-	-	-	-
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	-	-	-	-	-
Consorzio Ferroviario Vesuviano	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	-	-	-	-	-
Total	**92,118**	**1,300**	**64,987**	**-**	**-**	**4**
% of the total corresponding financial statements caption	**7%**	**6%**	**8%**			**0.02%**

15.2 Revenue

(€'000)	**31.12.2017**	31.12.2016
Sales	1,144,821	889,329
Services	130,800	153,970
	1,275,621	**1,043,299**
Change in work in progress	7,656	191,969
Third party revenue	**1,283,277**	**1,235,268**
Related party revenue	**77,690**	**92,118**
Total revenue	**1,360,967**	**1,327,386**

Revenue amounted to €1,360,967 thousand at 31 December 2017, compared to €1,327,386 thousand balance at 31 December 2016.
The main increase was registered by the US subsidiary in relation to the start of works pertaining to the contracts acquired in the last few years.
Related party revenue decreased by €14,428 thousand compared to the previous year.

15.3 Other operating income

(€'000)	**31.12.2017**	31.12.2016
R&D grants	2,334	1,834
Training grants	-	82
Gains on sales of property, plant and equipment and intangible assets	7	16
Reversals of impairment losses on loans and receivables	2,022	670
Reversals of provisions for risks and charges	306	59
Release of the provision for expected losses to complete contracts	3,022	1,334
Royalties	166	292
Financial income and exchange rate gains on operating items	5,467	1,900
Tax asset for R&D	2,695	3,327
Other operating income	8,941	10,442
Other third party operating income	**24,960**	**19,956**
Other related party operating income	**1,488**	**1,300**
Total other operating income	**26,448**	**21,256**

Other operating income amounted to €26,448 thousand, up on the balance of the previous year (€21,256 thousand), mainly due to the increase in financial income and exchange gains on operating items and the closing of specific transactions by the parent.
Other related party operating income remained virtually unchanged.

15.4 Purchases and services

(€'000)	**31.12.2017**	31.12.2016
Materials	362,393	335,163
Change in inventories	718	(4,805)
Services	443,551	438,579
Rentals and operating leases	20,728	20,365
Total third party purchases and services	**827,390**	**789,302**
Total related party purchases and services	**89,491**	**64,987**
Total purchases and services	**916,881**	**854,289**

Total purchases and services of €916,881 thousand increased by €62,592 thousand on those for the previous year (€854,289 thousand) mainly due to larger production volumes in the year.
Purchases of materials and change in inventories amount to €363,111 thousand (31 December 2016: €330,358 thousand), up by €32,753 thousand.
Services amount to €443,551 thousand (31 December 2016: €438,579 thousand), up by €4,972 thousand.
Rentals and operating leases amount to €20,728 thousand (31 December 2016: €20,365 thousand), up by €363 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 €24,504 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)	**31.12.2017**	31.12.2016
Wages and salaries	258,462	253,208
Stock grant plans	1,621	4,731
Social security and pension contributions	63,148	59,306
Italian post-employment benefits	657	519
Other defined benefit plans	920	704
Other defined contribution plans	3,695	4,363
Recovery of personnel expense	(612)	(836)
Disputes with personnel	1,466	295
Other costs	4,863	10,048
Total personnel expense	**334,220**	**332,338**

The headcount at 31 December 2017 numbered 4,228, up by 277 employees on the previous year (3,951).
The average headcount on the payroll in 2017 numbered 4,081, compared to 3,828 employees in 2016, up by 253 employees.
Personnel expense came to €334,220 thousand, up by €1,882 thousand on the previous year (€332,338 thousand). Higher costs for wages and salaries and for social security and pension contributions, as a result of the higher average headcount, were partially offset by lower costs for stock grant plans and the reduction in the caption ‘other costs’ which, in 2016, also included the costs relating to transactions with the company’s strategic and non-strategic personnel.
On 24 March 2017, the Board of Directors, based of the proposal of the remuneration committee of 23 March 2017, which was subsequently passed by the shareholders on 11 May 2017, approved a three-year stock grant plan, addressed to the CEO, key managers and other executives (or equivalent categories) of Ansaldo STS considered key resources by the company. The objectives of the Plan are the same as those of the previous 2014-2016 Plan (EVA, FOCF and share performance compared to 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 2017 objectives (as per the 2017-2019 plan), determined as a result of the estimate of attainment of said objectives.
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 2017, equal to €1,621 thousand (2016: €4,731 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)	**31.12.2017**	31.12.2016
Amortisation and depreciation:		
- intangible assets	5,268	7,353
- property, plant and equipment	10,473	9,597
	15,741	**16,950**
Impairment losses:		
- current loans and receivables	3,269	1,368
- other assets	-	7
	3,269	**1,375**
Total amortisation, depreciation and impairment losses	**19,010**	**18,325**

Amortisation, depreciation and impairment losses amount to €19,010 thousand and increased by €685 thousand on 2016 (€18,325 thousand). This change was caused by higher impairment losses on current loans and receivables, partially offset by lower amortisation and depreciation for the period.

15.7 Other operating expense

(€’000)	**31.12.2017**	31.12.2016
Accruals to the provisions for risks and charges	4,518	4,873
Losses to complete contracts	(494)	925
Membership fees	753	676
Losses on sales of property, plant and equipment and intangible assets	167	87
Losses on sales of current loans and receivables	102	-
Exchange rate losses on operating items	8,108	9,181
Interest and other operating expense	1,673	1,347
Indirect taxes	3,199	2,833
Other operating expense	2,106	1,581
Total other third party operating expense	**20,132**	**21,503**
Other related party operating expense	**-**	**4**
Total other operating expense	**20,132**	**21,507**

Other third party and related party operating expense amounted to €20,132 thousand at 31 December 2017, down by €1,375 thousand on 2016 (€21,507 thousand at 31 December 2016). Specifically, the decrease is related to lower losses to complete contracts and lower exchange losses on operating items.
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)	**31.12.2017**	31.12.2016
Internal work capitalised	(3,390)	(5,131)

Internal work capitalised mainly relates to:
- the parent Ansaldo STS S.p.A. (€2,867 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. (€523 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 income/(expense)

	31.12.2017			31.12.2016		
(€'000)	**Income**	**Expense**	**Net**	Income	Expense	Net
Interest and fees	898	4,688	(3,790)	1,001	8,206	(7,205)
Net exchange rate losses	15,793	16,635	(842)	10,819	12,877	(2,058)
Fair value losses	6,123	7,899	(1,776)	621	4,561	(3,940)
Interest on Italian post-employment benefits	-	275	(275)	-	268	(268)
Interest on other defined benefit plans	-	250	(250)	-	286	(286)
Other financial expense	162	787	(625)	-	740	(740)
Total net financial expense	**22,976**	**30,534**	**(7,558)**	**12,441**	**26,938**	**(14,497)**
Net related party financial income	**10**	**-**	**10**	**-**	**-**	**-**
Total	**22,986**	**30,534**	**(7,548)**	**12,441**	**26,938**	**(14,497)**

In 2016, net third party financial expense amounted to €7,548 thousand, compared to €14,497 thousand at 31 December 2016.
The positive change of €6,949 thousand is due primarily:
- to the item expense for interest and fees, which includes interest paid and allocated in relation to the dispute with the Swedish customer AB Storstockholms Lokaltrafik (€3,874 thousand), while in 2016 it included the interest paid to the Russian customer following the conclusion of the arbitration on the Libyan contract (€7,670 thousand);
- to lower expenses deriving from the fair value gains in the income statement and exchange rate gains and losses.

As shown in the table, interest on the Italian post-employment benefits and defined benefit plans amounts to €275 thousand (€268 thousand at 31 December 2016) and €250 thousand (€286 thousand at 31 December 2016), respectively.

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

(€'000)	31.12.2017 Income	Expense	Net	31.12.2016 Income	Expense	Net
Share of profits (losses) of equity-accounted investees	5,798	-	5,798	4,345	-	4,345
Total	**5,798**	**-**	**5,798**	**4,345**	**-**	**4,345**

The share of profits (losses) of equity-accounted investees is a positive €5,798 thousand and comprises the profit of Balfour Beatty Ansaldo System JV SDN BHD (€3,080 thousand), of the associates Metro 5 S.p.A. (€2,437 thousand) and Metro Brescia S.r.l. (€233 thousand) and the profit of the investee International Metro Service S.r.l. (€48 thousand).

15.11 Income taxes

This caption comprises:

(€'000)	31.12.2017	31.12.2016
IRES	12,679	12,663
IRAP	1,934	2,134
Other foreign taxes	12,510	23,312
Prior year taxes	2,438	982
Net deferred tax (income) expense	4,648	(345)
Total	**34,209**	**38,746**

The value of taxes was €34,209 thousand in 2017, a reduction of €4,537 thousand compared to the previous year, essentially due to the lower pre-tax profit. Specifically:

- higher net deferred taxes, which went from €-345 thousand to €4,648 thousand, marking a change of €4,993 thousand between the two years being compared, attributable primarily to the adjustment of tax assets and liabilities relating to the items that would be reversed in the years after 2017 for the US subsidiaries and for the French subsidiary, as a result of the reduction in the nominal rate, as defined in the tax reforms approved in the US and France at the end of 2017;
- IRES (€12,679 thousand) and IRAP (€1,934 thousand) for the year, related to the parent, in line with the previous year;
- income taxes of foreign companies (€12,510 thousand) decreased, €23,312 thousand at 31 December 2016, primarily due to the decline in their pre-tax profit.

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

(€'000)	31.12.2017 amount		%	31.12.2016 amount		%
Pre-tax profit	**99,077**	**-**		**116,649**	**-**	
Taxes calculated at ruling tax rates		23,778	24.00%		32,078	27.50%
Permanent differences	(9,317)	(2,236)	-2.26%	2,484	683	0.59%
	89,760	**21,542**	**21.74%**	**119,133**	**32,761**	**28.09%**
Different rates on foreign taxes and/or due to losses of the year	-	8,561	8.64%	-	1,846	1.58%
IRAP and other taxes calculated on a basis other than pre-tax profit	-	1,667	1.68%	-	3,156	2.71%
Prior year taxes	-	2,438	2.46%	-	982	0.84%
Provisions for tax risks	-	-	0.00%	-	-	0.00%
Total effective taxes recognised in profit or loss		**34,209**	**34.53%**		**38,746**	**33.22%**

At 31 December 2017, the effective tax rate is 34.53%, compared to 33.22% in the previous year, marking an increase of 1.31%, due to the different mix of pre-tax profits (losses) of individual group companies.

The breakdown of deferred tax assets and deferred tax liabilities as at 31 December 2017 and the income statement effects of their changes for the year ended as at said date are reported below:

	Income statement		Statement of financial position	
(€'000)	Assets	Liabilities	Assets	Liabilities
Italian post-employment benefits and pension funds	(1,095)	-	4,187	-
Remuneration	-	-	325	-
Property, plant and equipment and intangible assets	(12)	44	713	551
Provisions for risks and charges	8,112	-	15,238	-
Research grants	-	(953)	799	1,238
Allowances for WIP and inventory write-down	(1)	-	2,417	-
CFH - Defined benefit plans	-	-	1,198	1,575
Tax losses	280	-	1,579	-
Other	(13,081)	(240)	9,757	5,466
Total	**(5,797)**	**(1,149)**	**36,213**	**8,830**

The deferred tax assets generated by the "Provisions for risks and charges" mainly relate to the US subsidiaries (€2,896 thousand) and the parent (€12,271 thousand).
The deferred tax assets on "tax losses" fully relate to the subsidiary Ansaldo STS USA (€1,579 thousand).
The deferred tax assets related to the allowance for work-in-progress and inventory write-down relate to the subsidiary Ansaldo STS USA (€262 thousand), Ansaldo STS France (€1,762 thousand) and the parent Ansaldo STS S.p.A. (€361 thousand).

Deferred tax assets are recognised taking into consideration their recoverability in each component of the consolidated financial statements, based on the availability of the expected forecasted future taxable income of the group.
"Other" mainly relates to the parent, Ansaldo STS S.p.A. (€6,300 thousand), the subsidiary Ansaldo STS Australia (€2,121 thousand) and the subsidiaries Ansaldo STS USA INC. (€1,069 thousand) and Ansaldo STS France (€267 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 €396 thousand) and actuarial gains/losses following the adoption of the equity method for defined benefit plans (impact of the period of €-87 thousand).

This equity item changed as follows during the year:

(€'000)	31.12.2016	Transfers to profit or loss	Fair value gains or losses	Other changes	31.12.2017
Deferred taxes directly recognised in equity	**699**	**-**	**309**	**-**	**1,008**

16 Earnings 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	**31.12.2017**	31.12.2016
Average shares outstanding during the year	199,996,061	199,996,346
Profit for the year	64,868	77,903
Basic and diluted EPS	**0.32**	**0.39**

There were no dilutive effects in the periods subject to comparison.

17 Cash flows from operating activities

The following table shows the cash flows from operating activities:

(€'000)	31.12.2017	31.12.2016
Profit of the year	64,868	77,903
Share of profits (losses) of equity-accounted investees	(5,798)	(4,345)
Income taxes	34,209	38,746
Italian post-employment and other employee benefits	932	787
Stock grant plans	1,621	4,731
Net gains on the sale of assets	160	71
Net financial income	7,558	14,497
Amortisation, depreciation and impairment losses	19,010	18,325
Accruals to/reversals of provisions for risks	4,212	4,814
Other operating income/expense	(20,205)	3,118
Write-downs/reversals of write-downs of inventories and work in progress	27,306	(4,498)
Total	**133,873**	**154,149**

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)	31.12.2017	31.12.2016
Inventories	9,271	(2,981)
Work in progress and progress payments and advances from customers	(56,265)	(63,094)
Trade receivables and payables	1,425	(17,077)
Total	**(45,569)**	**(83,152)**

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)	31.12.2017	31.12.2016
Payment of Italian and other post-employment benefits	(4,247)	(7,547)
Taxes paid	(26,890)	(20,928)
Changes in other operating items	(7,041)	11,200
Total	**(38,178)**	**(17,275)**

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 management

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	**Sell17**	**Buy17**	**31.12.2017**	Sell16	Buy16	31.12.2016
Euro	28,716	36,654	**65,370**	25,169	31,685	**56,854**
US dollar	187,605	65,185	**252,790**	263,912	81,386	**345,298**
Pound sterling	48,408	-	**48,408**	55,729	-	**55,729**
Swedish krona	44,475	-	**44,475**	824	824	**1,648**
Australian dollar	-	12,251	**12,251**	-	6,783	**6,783**
Hong Kong dollar	177	-	**177**	455	-	**455**
Indian rupee	4,826	-	**4,826**	5,164	-	**5,164**
United Arab Emirates dirham	11,352	-	**11,352**	12,921	-	**12,921**

The net fair value of the derivatives in place at 31 December 2017 was a negative €7,975 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 significant 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 2017, 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:

	31.12.2017		31.12.2016	
(€'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	(5,262)	5,832	(4,613)	5,098
Hedging reserve	5,349	(5,983)	11,692	(12,920)

The sensitivity of the income statement to the Euro/US dollar exchange rate fluctuations is in line with the analysis conducted in 2016, and the impact on the financial position decreased, as a result of the closing of forex positions in 2017.

Interest rate risk management

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 the Ansaldo STS Group's WACC from medium- to long-term. To reach this objective, interest rate risk management will focus 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 2017, 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 2017 is summarised in the following table:

	31.12.2017		31.12.2016	
(€'000)	**+50 bps**	**-50 bps**	+50 bps	-50 bps
Income statement	1,285	(1,285)	1,222	(1,222)

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 2017 are virtually in line with those as at 31 December 2016.

Liquidity risk management

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 €357,535 thousand at 31 December 2017, an increase compared to a net financial position of €338,039 thousand at 31 December 2016.

Liquidity analysis - figures at 31.12.2017

A – Financial liabilities excluding derivatives (€'000)	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	-	-	-
Current liabilities			
Related party trade payables	14,743	15,130	-
Third party trade payables	381,569	2,197	-
Third party financial liabilities	424	-	-
Related party financial liabilities	-	-	-
Other financial liabilities	-	-	-
Total A	**396,736**	**17,327**	**-**
B – Negative value of derivatives			
Hedging derivatives	2,740	-	-
Trading derivatives (economic hedge)	-	-	-
Total B	**2,740**	**-**	**-**
Total A + B	**399,476**	**17,327**	**-**

The following financial assets were recognised against loans and borrowings and trade payables of €416,803 thousand:

C - Financial assets	
Cash-in-hand and cash and cash equivalents	327,326
Third party trade receivables	681,456
Related party trade receivables	55,208
Receivables at FV - third parties	-
Receivables at FV - related parties	-
Loan assets	30,633
Other assets	-
Positive value of derivatives	10,715
TOTAL FINANCIAL ASSETS	**1,105,338**
D – Unsecured credit lines	**158,406**
TOTAL C + D	**1,263,744**
C+D-(A+B)	**846,941**

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 management

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 2017, third party trade receivables amounted to €681,456 thousand (31 December 2016: €666,476 thousand) and were overdue for €263,283 thousand, of which €144,653 thousand by more than 12 months.
At 31 December 2017, third party trade receivables mainly relate to the parent Ansaldo STS S.p.A. (€539,835 thousand), overdue for €236,603 thousand.

The following table gives a breakdown of receivables at 31 December 2017:

	Public bodies			Other customers			
31.12.2017 (€'000)	**Area Europe**	**Area Americas**	**Other**	**Area Europe**	**Area Americas**	**Other**	**Total**
- Retentions	40,532	6,434	6,498	27,323	3,749	624	85,160
- Not overdue	80,753	34,659	3,433	184,929	7,285	21,954	333,013
- Overdue by less than six months	14,517	2,292	552	46,408	5,883	3,955	73,607
- Overdue between 6 months and 1 year	23,800	1,066	447	18,049	591	1,070	45,023
- Overdue between one and five years	96,676	3,622	978	42,192	386	799	144,653
Total	**256,278**	**48,073**	**11,908**	**318,901**	**17,894**	**28,402**	**681,456**

The allowance for impairment changed as follows:

	31.12.2017	31.12.2016
1 January	**24,007**	**22,667**
Accruals	1,465	1,366
Releases/Utilisation	(7,966)	(28)
Other changes	(15)	2
31 December	**17,491**	**24,007**

During the year, the allowance for impairment recorded an accrual of €1,450 thousand and a use of €7,966 thousand, for unpaid credits attributable primarily to the collection risk of receivables for interest in arrears and late payment registered by the parent Ansaldo STS S.p.A..
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.

Rating class	**Positive fair value**
A	100.0%
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.

31.12.2017 (€'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	-	25,627	-	**25,627**	**25,627**
Financial assets measured at fair value through profit or loss	-	-	-	**-**	**-**
Loans and receivables	-	17,829	-	**17,829**	**17,829**
Current assets					
Current related party loans assets	-	55,208	-	**55,208**	**55,208**
Trade receivables	-	681,456	-	**681,456**	**681,456**
Financial assets measured at fair value through profit or loss	-	30,633	-	**30,633**	**30,633**

31.12.2017 (€'000)	**Fair value through profit or loss**	**Amortised cost**	**Held to maturity**	**Total**	**Fair value**
Current liabilities					
Current related party liabilities	-	29,873	-	**29,873**	**29,873**
Related party loans and borrowings	-	-	-	**-**	**-**
Trade payables	-	383,766	-	**383,766**	**383,766**
Loans and borrowings	-	424	-	**424**	**424**
Other current liabilities	-	-	-	**-**	**-**

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**

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

Derivatives

IFRS requires 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 31.12.2017 Level 2**	Fair value at 31.12.2016 Level 2
Assets		
Currency forwards/swaps/options		
Trading	-	-
Fair value hedges	1,712	4,043
Cash flow hedges	9,003	6,472
Liabilities		
Currency forwards/swaps/options		
Trading	-	-
Fair value hedges	864	247
Cash flow hedges	1,876	16,761

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.

	31.12.2017 Notional (USD'000)		31.12.2016 Notional (USD'000)	
Maturity	**Collection**	**Payment**	Collection	Payment
Within one year	156,759	4,338	261,553	26,868
Between one and three years	270	1,766	8,627	3,458
Between three and nine years	-	-	-	-
After nine years	-	-	-	-
Total	**157,029**	**6,104**	**270,180**	**30,326**

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)	**31.12.2017**	31.12.2016
Fees	3,769	3,165
Termination benefits	-	2,384
Stock grants	573	180
Total	**4,342**	**5,729**

Fees paid to directors, key managers and the general manager amounted to €4,342 thousand in 2017 (2016: €5,729 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.
In 2017, as outlined in more detail in the paragraph "Personnel and Organisation", Mr. Corsi and Mr. Gallo were appointed as Key Managers and the relevant compensation inserted in said scheme, while 2016 included costs related to transactions with the company's strategic personnel.
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 2017 (2016: €210 thousand).

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

Shares were delivered in 2017 as the 2014 vesting conditions of the 2014-2016 plan have a three-year term. In addition, the shares for the 2017 vesting conditions as part of the 2017-2019 plan were accrued.

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

(in euros)

ENTITY	POSITION						
Name and surname	Position	Date of appointment	End of term	Fees for the position held in the reporting company for 2017	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 - BOD	13/05/2016	Approval of 2018 financial statements	95,000 (2)			
Katrarine Rosalind Painter (a) (d)	Director	13/05/2016	Approval of 2018 financial statements	95,000 (3)			
Andrew Thomas Barr (g)	Chief executive officer and general manager	24/05/2016	Approval of 2018 financial statements	80,000 (4)	30,212		419,610*
Mario Garraffo (b) (d)	Director	13/05/2016	Approval of 2018 financial statements	90,000 (5)			
Katherine Jane Mingay	Director	13/05/2016	Approval of 2018 financial statements	50,000 (6)			
Rosa Cipriotti	Director	13/05/2016	Approval of 2018 financial statements	50,000 (6)			
Fabio Labruna	Director	13/05/2016	Approval of 2018 financial statements	50,000 (6)			
Giuseppe Bivona	Director in office until 19/01/2017	13/05/2016	Approval of 2018 financial statements	2,603 (7)			
Michele Alberto Fabiano Crisostomo	Director in office from 19/01/2017	02/11/2015	Approval of 2018 financial statements	47,397 (8)			
Garaventa Nicoletta (e)	Chairperson of the supervisory body	24/05/2016	three-year term	25,000			
Quagli Alberto (f)	Member of the supervisory body	24/05/2016	three-year term	20,000			
Sarubbi Giacinto (h)	Chairperson of the board of statutory auditors	15/04/2014	Approval of 2016 financial statements	26,958			5,342**
Spinardi Maria Enrica (i)	Statutory auditor	15/04/2014	Approval of 2016 financial statements	17,972			3,562**
Righetti Renato (i)	Statutory auditor	15/04/2014	Approval of 2016 financial statements	17,972			3,562**
Antonio Zecca (l)	Chairperson of the board of statutory auditors from 11/05/2017	11/05/2017	Approval of 2019 financial statements	48,042			9,658**
Giovanni Naccarato (m)	Statutory auditor since 11/05/2017	11/05/2017	Approval of 2019 financial statements	32,028			6,438**
Alessandra Stabilini (m)	Statutory auditor since 11/05/2017	11/05/2017	Approval of 2019 financial statements	32,028			6,438**

* Of which, fixed remuneration of €340,463 for the position of general manager and other fees for 2017 and €79,147 for variable remuneration paid for such position.

** Fees for positions on committees

(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
(h) Chairperson of the board of statutory auditors until 10/05/2017
(i) Statutory auditor until 10/05/2017
(i) Chairperson of the board of statutory auditors from 11/05/2017
(m) Statutory auditor from 11/05/2017

(1) Chairperson of BOD.
(2) Deputy Chairperson of BOD - ARC - Chairperson of RCC
(3) BOD - RCC and Chairperson of ARC
(4) CEO and general manager
(5) BOD - RCC and ARC
(6) BOD
(7) BOD until 19/01/2017
(8) BoD since 19/01/2017

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

The 2018 financial year will include the accounting effects coming from the adoption of the new IFRS15 standard. Volumes are expected in continuity with the previous year, while the profitability will be affected by a different and less favourable mix of projects. Further investments in R&D and commercial activity as well as specific initiatives focused on improving company effectiveness and efficiency are also budgeted in the 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 2017 for audit and non-audit services provided by the audit company or entities belonging to its network.

(€'000)	**Service provider**	**Beneficiary**	**2017 fees**
Audit	EY	Parent	207
	EY	Subsidiaries	424
	EY		
Attestation services	EY	Parent	170
	EY	Subsidiaries	-
	EY		
Tax consultancy services	EY	Parent	-
	EY	Subsidiaries	-
	EY		
Other services	EY	Parent	-
	EY	Subsidiaries	-
			801

Genoa, 14 March 2018

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 Italian Legislative Decree no. 58 of 24 February 1998 and subsequent amendments and integrations

1. The undersigned, Mr. The undersigned, Andrew Thomas Barr, as CEO and general manager, and Renato Gallo 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 consolidated financial statements for the 1 January 2017 - 31 December 2017 period
   - 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.

Genoa, 14 March 2018

Signature of the Chief executive officer
and general manager

Andrew Thomas Barr

Signature of the Manager in charge
of financial reporting

Renato Gallo

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Independent auditor's report in accordance with article 14 of Legislative Decree n. 39, dated 27 January 2010 and article 10 of EU Regulation n. 537/2014
(Translation from the original Italian text)

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

Report on the Audit of the Consolidated Financial Statements

Opinion

We have audited the consolidated financial statements of Ansaldo STS Group (the Group), which comprise the consolidated statement of financial position as at December 31, 2017, and the consolidated income statement, the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the financial position of the Group as at December 31, 2017, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union and with the regulations issued for implementing art. 9 of Legislative Decree n. 38/2005.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISA Italia). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report.
We are independent of Ansaldo STS S.p.A. in accordance with the regulations and standards on ethics and independence applicable to audits of financial statements under Italian Laws. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the [consolidated] financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

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Consob al progressivo n. 2 delibera n.10831 del 16/7/1997

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We identified the following key audit matter.

Key Audit Matter	Audit Response
Revenue recognition and evaluation of contracts' work in progress The consolidated financial statements include mainly revenues from construction contracts for Euro 1.361 million and related assets and liabilities, for Euro 380 million and Euro 683 million respectively. Such revenues and related margins are recognized through the income statement based upon the progression of the construction activities of each project, in accordance with the percentage of completion method, which is determined based on actual costs, as compared to expected costs to complete the projects. The processes and the methodologies applied to recognize revenue from construction contracts' work in progress are based on assumptions, sometimes complex, which imply, by their nature, the use of judgment by the Management, with particular reference to the estimate of the costs expected to complete the projects, including the estimate of risks and contractual penalties, where applicable, and to any changes in estimates from prior periods. Considering the materiality of revenues and assets and liabilities referred to construction contracts, the complexity of assumptions used in estimating the costs expected to complete the projects and the potential impact of changes in estimates on the net result of the year, we identified this area as a key audit matter. The disclosure in the Notes to the financial statements related to revenue recognition and evaluation of contracts' work in progress is included in paragraph "12.2.1 Accounting policies" in the note "Discretionary judgments and significant accounting estimates - Revenue recognition and work in progress valuation".	Our audit procedures included, among others: i. assessment of processes and key controls implemented by the management related to planning and control over the projects, including testing of the revenue recognition criteria; ii. assessment of the key assumptions adopted to estimate costs to complete the projects and to determine total revenues for a sample of significant contracts, through the analysis of internal projects' documentation and reports, inquiries with project managers and critical review of the contracts; iii. analytical review of actual results from construction contracts compared with perspective and prior year data; iv. execution of test of details on a sample of contracts' costs; v. test of percentages of completion for a sample of contracts. Lastly, we verified the adequacy of disclosures provided in the financial statements related to revenue recognition and evaluation of contracts' work in progress.

Responsibilities of Directors and Those Charged with Governance for the Consolidated Financial Statements

The Directors are responsible for the preparation and fair presentation of the [consolidated] financial statements in accordance with International Financial Reporting Standards as adopted by the European Union and with the regulations issued for implementing art. 9 of Legislative Decree n. 38/2005, and, within the terms provided by the law, for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless they either intend to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

The statutory audit committee ("Collegio Sindacale") is responsible, within the terms provided by the law, for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with International Standards on Auditing (ISA Italia) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with International Standards on Auditing (ISA Italia), we have exercised professional judgment and maintained professional skepticism throughout the audit. In addition:

- we have identified and assessed the risks of material misstatement of the consolidated financial statements, whether due to fraud or error; have designed and performed audit procedures responsive to those risks, and obtained audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- we have obtained an understanding of internal control relevant to the audit 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 Group's internal control;
- we have evaluated the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Directors;
- we have concluded on the appropriateness of Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on

the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern;

- we have evaluated the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- we have obtained sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We have communicated with those charged with governance, identified at an appropriate level as required by ISA Italia, regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We have provided those charged with governance with a statement that we have complied with the ethical and independence requirements applicable in Italy, and we have communicated with them all matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we have determined those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We have described these matters in our auditor's report.

Additional information pursuant to article 10 of EU Regulation n. 537/14

The shareholder of Ansaldo STS S.p.A., in the general meeting held on January 19, 2017, engaged us to perform the audits of the consolidated financial statements of each years ending December 31, 2016 to December 31, 2024.

We declare that we have not provided prohibited non-audit services, referred to article 5, par. 1, of EU Regulation n. 537/2014, and that we have remained independent of the Group in conducting the audit.

We confirm that the opinion on the consolidated financial statements included in this report is consistent with the content of the additional report to the audit committee (Collegio Sindacale) in their capacity as audit committee, prepared in accordance with article 11 of the EU Regulation n. 537/2014.

Report on compliance with other legal and regulatory requirements

Opinion pursuant to article 14, paragraph 2, subparagraph e), of Legislative Decree n. 39 dated 27 January 2010 and of article 123-bis, paragraph 4, of Legislative Decree n. 58, dated 24 February 1998

The Directors of Ansaldo STS S.p.A. are responsible for the preparation of the Report on Operation and of the Report on Corporate Governance and Ownership Structure of Ansaldo STS Group as at December 31, 2017, including their consistency with the related consolidated financial statements and their compliance with the applicable laws and regulations.

We have performed the procedures required under audit standard SA Italia n. 720B, in order to express an opinion on the consistency of the Report on Operations and of specific information included in the Report on Corporate Governance and 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 of Ansaldo STS Group as at December 31, 2017 and on their compliance with the applicable laws and regulations, and in order to assess whether they contain material misstatements.

In our opinion, the Report on Operation and the above mentioned specific information included in the Report on Corporate Governance and Ownership Structure are consistent with the consolidated financial statements of Ansaldo STS Group as at December 31, 2017 and comply with the applicable laws and regulations.

With reference to the statement required by art. 14, paragraph 2, subparagraph e), of Legislative Decree n. 39, dated 27 January 2010, based on our knowledge and understanding of the entity and its environment obtained through our audit, we have no matters to report.

Statement pursuant to article 4 of Consob Regulation implementing Legislative Decree n. 254, dated 30 December 2016

The Directors of Ansaldo STS S.p.A. are responsible for the preparation of the non-financial information pursuant to Legislative Decree n. 254, dated 30 December 2016. We have verified that non-financial information have been approved by Directors.

Pursuant to article 3, paragraph 10, of Legislative Decree n. 254, dated 30 December 2016, such non-financial information are subject to a separate compliance report signed by us.

Genoa, March 27, 2018

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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Respecting the environment, Ansaldo STS has decided to print this Annual Report on paper coming from forests responsibly managed, according to the FSC® criteria (Forest Stewardship Council®).

Ansaldo STS A Hitachi Group Company

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