ALSTOM

Consolidated financial statements

Year ended 31 March 2019

ALSTOM

CONSOLIDATED INCOME STATEMENT

(in € million)	Note	Year ended 31 March 2019	Year ended 31 March 2018 (*)
Sales	**(3)**	**8,072**	**7,346**
Cost of sales		(6,641)	(6,127)
Research and development expenses	(4)	(291)	(252)
Selling expenses	(5)	(214)	(211)
Administrative expenses	(5)	(355)	(359)
Other income/(expense)	(6)	(163)	(133)
Earnings Before Interests and Taxes		**408**	**264**
Financial income	(7)	3	10
Financial expense	(7)	(91)	(109)
Pre-tax income		**320**	**165**
Income Tax Charge	(8)	(70)	(59)
Share in net income of equity-accounted investments	(13)	195	216
Net profit from continuing operations		**445**	**322**
Net profit from discontinued operations	(9)	248	52
NET PROFIT		**693**	**374**
Net profit attributable to equity holders of the parent		681	365
Net profit attributable to non controlling interests		12	9
Net profit from continuing operations attributable to:			
- Equity holders of the parent		433	313
- Non controlling interests		12	9
Net profit from discontinued operations attributable to:			
- Equity holders of the parent		248	52
- Non controlling interests		-	-
Earnings per share (in €)			
- Basic earnings per share	(10)	3.05	1.65
- Diluted earnings per share	(10)	3.03	1.64

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

The accompanying notes are an integral part of the condensed consolidated financial statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

(in € million)	Note	Year ended 31 March 2019	31 March 2018 (*)
Net profit recognised in income statement		**693**	**374**
Remeasurement of post-employment benefits obligations	(29)	(50)	62
Equity investments at FVOCI	(13)/(14)	55	-
Income tax relating to items that will not be reclassified to profit or loss	(8)	5	(8)
Items that will not be reclassified to profit or loss		**10**	**54**
of which from equity-accounted investments	(13)	*54*	-
Fair value adjustments on cash flow hedge derivatives		-	5
Costs of hedging reserve		(8)	12
Currency translation adjustments	(23)	33	(214)
Income tax relating to items that may be reclassified to profit or loss	(8)	2	-
Items that may be reclassified to profit or loss		**27**	**(197)**
of which from equity-accounted investments	(13)	*(1)*	*(41)*
TOTAL COMPREHENSIVE INCOME		**730**	**231**
Attributable to:			
- Equity holders of the parent		718	226
- Non controlling interests		12	5
Total comprehensive income attributable to equity shareholders arises from :			
- Continuing operations		469	174
- Discontinued operations		249	52
Total comprehensive income attributable to non controlling interests arises from :			
- Continuing operations		12	5
- Discontinued operations		-	-

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

The accompanying notes are an integral part of the consolidated financial statements.

CONSOLIDATED BALANCE SHEET

Assets

(in € million)	Note	At 31 March 2019	At 31 March 2018 (*)
Goodwill	(11)	1,574	1,422
Intangible assets	(11)	470	416
Property, plant and equipment	(12)	953	854
Investments in joint-venture and associates	(13)	711	533
Non consolidated investments	(14)	64	58
Other non-current assets	(15)	242	277
Deferred Tax	(8)	299	305
Total non-current assets		**4,313**	**3,865**
Inventories	(17)	1,533	1,440
Contract assets	(18)	1,448	1,212
Trade receivables	(19)	1,661	1,772
Other current operating assets	(20)	1,006	1,328
Other current financial assets	(25)	10	8
Cash and cash equivalents	(26)	3,432	1,231
Total current assets		**9,090**	**6,991**
Assets held for sale	(13)	7	2,390
TOTAL ASSETS		**13,410**	**13,246**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

Equity and Liabilities

(in € million)	Note	At 31 March 2019	At 31 March 2018 (*)
Equity attributable to the equity holders of the parent	(23)	4,091	3,376
Non controlling interests		68	54
Total equity		**4,159**	**3,430**
Non current provisions	(22)	346	530
Accrued pensions and other employee benefits	(29)	533	468
Non-current borrowings	(27)	89	952
Non-current obligations under finance leases	(27)	197	212
Deferred Tax	(8)	21	22
Total non-current liabilities		**1,186**	**2,184**
Current provisions	(22)	847	826
Current borrowings	(27)	1,013	525
Current obligations under finance leases	(27)	19	18
Contract liabilities	(18)	3,001	3,157
Trade payables	(16)	1,751	1,346
Other current liabilities	(21)	1,428	1,753
Total current liabilities		**8,059**	**7,625**
Liabilities related to assets held for sale		6	7
TOTAL EQUITY AND LIABILITIES		**13,410**	**13,246**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

The accompanying notes are an integral part of the consolidated financial statements.

ALSTOM

CONSOLIDATED STATEMENT OF CASH FLOWS

(in € million)	Note	Year ended 31 March 2019	Year ended 31 March 2018 (*)
Net profit		**693**	**374**
Depreciation, amortisation and impairment	(11)/(12)	195	171
Expense arising from share-based payments	(31)	20	18
Cost of net financial debt and costs of foreign exchange hedging, net of interest paid and received (a) , and other change in provisions		(14)	17
Post-employment and other long-term defined employee benefits		11	19
Net (gains)/losses on disposal of assets (**)		(57)	2
Share of net income (loss) of equity-accounted investments (net of dividends received)	(13)	(143)	(198)
Deferred taxes charged to income statement	(8)	10	(65)
Net cash provided by operating activities - before changes in working capital		**715**	**338**
Changes in working capital resulting from operating activities (b)	**(16)**	**(290)**	**80**
Net cash provided by/(used in) operating activities		**425**	**418**
Of which operating flows provided / (used) by discontinued operations	*(9)*	*-*	*-*
Proceeds from disposals of tangible and intangible assets		3	3
Capital expenditure (including capitalised R&D costs)		(275)	(293)
Increase/(decrease) in other non-current assets	(15)	10	21
Acquisitions of businesses, net of cash acquired (***)		(114)	(4)
Disposals of businesses, net of cash sold	(9)	2,576	(80)
Net cash provided by/(used in) investing activities		**2,200**	**(353)**
Of which investing flows provided / (used) by discontinued operations	*(9)*	*(16)*	*(82)*
Capital increase/(decrease) including non controlling interests		19	47
Dividends paid including payments to non controlling interests		(84)	(60)
Repayments of bonds & notes issued	(27)	(371)	(272)
Changes in current and non-current borrowings	(27)	(8)	7
Changes in obligations under finance leases	(27)	(17)	(27)
Changes in other current financial assets and liabilities	(27)	3	-
Net cash provided by/(used in) financing activities		**(458)**	**(305)**
Of which financing flows provided / (used) by discontinued operations	*(9)*	*-*	*-*
NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS		**2,167**	**(240)**
Cash and cash equivalents at the beginning of the period		1,231	1,563
Net effect of exchange rate variations		37	(92)
Transfer to assets held for sale		(3)	-
CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD	**(26)**	**3,432**	**1,231**
(a) Net of interests paid & received		*(62)*	*(66)*
(b) Income tax paid		*(105)*	*(93)*

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

(**) Mainly including the impact of the change in EKZ consolidation method for €33 million and TMH dilution gain for €25 million (see Note 6).

(***) Of which €115 million related to the acquisition price of TMH (see Note 13).

(in € million)	Year ended 31 March 2019	Year ended 31 March 2018 (*)
Net cash/(debt) variation analysis (**)		
Changes in cash and cash equivalents	2,167	(240)
Changes in other current financial assets and liabilities	(3)	-
Changes in bonds and notes	371	272
Changes in current and non-current borrowings	8	(7)
Changes in obligations under finance leases	17	27
Transfer to assets held for sale	-	-
Net debt of acquired/disposed entities at acquisition/disposal date and other variations	20	(99)
Decrease/(increase) in net debt	2,580	(47)
Net cash(debt) at the begining of the period	(255)	(208)
NET CASH/(DEBT) AT THE END OF THE PERIOD	**2,325**	**(255)**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

(**) The net cash/(debt) is defined as cash and cash equivalents, marketable securities and other current financial assets and non-current financial assets directly associated to liabilities included in financial debt (see Note 15), less financial debt (see Note 27).

The accompanying notes are an integral part of the consolidated financial statements.

ALSTOM

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

(in € million, except for number of shares)	Number of outstanding shares	Capital	Additional paid-in capital	Retained earnings	Actuarial gains and losses	Cash-flow hedge	Currency translation adjustment	Equity attributable to the equity holders of the parent	Non controlling interests	Total equity
At 31 March 2017 (as published)	**219,711,830**	**1,538**	**890**	**1,906**	**(322)**	**1**	**(352)**	**3,661**	**52**	**3,713**
IFRS 9 & 15 restatement	-	-	-	(531)	-	-	20	(511)	(7)	(518)
At 31 March 2017 (restated)	**219,711,830**	**1,538**	**890**	**1,375**	**(322)**	**1**	**(332)**	**3,150**	**45**	**3,195**
Movements in other comprehensive income	-	-	-	11	59	6	(215)	(139)	(4)	(143)
Net income for the period	-	-	-	365	-	-	-	365	9	374
Total comprehensive income	-	-	-	**376**	**59**	**6**	**(215)**	**226**	**5**	**231**
Change in controlling interests and others	-	-	-	2	-	-	(2)	-	11	11
Dividends	-	-	-	(55)	-	-	-	(55)	(7)	(62)
Issue of ordinary shares under long term incentive plans	1,020,164	7	-	(7)	-	-	-	-	-	-
Recognition of equity settled share-based payments	1,478,477	10	27	18	-	-	-	55	-	55
At 31 March 2018 (*)	**222,210,471**	**1,555**	**917**	**1,709**	**(263)**	**7**	**(549)**	**3,376**	**54**	**3,430**
Movements in other comprehensive income	-	-	-	49	(48)	-	36	37	-	37
Net income for the period	-	-	-	681	-	-	-	681	12	693
Total comprehensive income	-	-	-	**730**	**(48)**	-	**36**	**718**	**12**	**730**
Change in controlling interests and others (**)	-	-	-	(10)	-	(7)	53	36	6	42
Dividends	-	-	-	(78)	-	-	-	(78)	(4)	(82)
Issue of ordinary shares under long term incentive plans	638,610	5	-	(5)	-	-	-	-	-	-
Recognition of equity settled share-based payments	723,232	5	14	20	-	-	-	39	-	39
At 31 March 2019	**223,572,313**	**1,565**	**931**	**2,366**	**(311)**	**-**	**(460)**	**4,091**	**68**	**4,159**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

(**) As part of the TMH combined operation, currency translation reserve has been recycled through profit and loss for €(61) million (see Note 13).

The accompanying notes are an integral part of the consolidated financial statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

Alstom is a leading player in the world rail transport industry. As such, the Company offers a complete range of solutions, including rolling stock, systems, services as well as signalling for passenger and freight railway transportation. It benefits from a growing market with solid fundamentals. The key market drivers are urbanisation, environmental concerns, economic growth, governmental spending and digital transformation.

In this context, Alstom has been able to develop both a local and global presence that sets it apart from many of its competitors, while offering proximity to customers and great industrial flexibility. Its range of solutions, one of the most complete and integrated on the market, and its position as a technological leader, place Alstom in a unique situation to benefit from the worldwide growth in the rail transport market. Lastly, in order to generate profitable growth, Alstom focuses on operational excellence and its product mix evolution.

The consolidated financial statements are presented in euro and have been authorised for issue by the Board of Directors held on 6 May 2019. In accordance with French legislation, they will be final once approved by the shareholders of Alstom at the Annual General Meeting convened for 10 July 2019.

A. MAJOR EVENTS AND CHANGES IN SCOPE OF CONSOLIDATION

NOTE 1. MAJOR EVENTS AND MAJOR CHANGES IN SCOPE OF CONSOLIDATION

1.1 Combination project of Siemens and Alstom's mobility businesses

The proposed combination of Alstom with Siemens Mobility, including its rail traction drive business, will not proceed following the decision of the European Commission occurred on 6 February 2019 to prohibit the proposed merger.

The project costs have been recognized in the net income and disclosed in the note 6.

1.2 Scope of consolidation

The three Energy Alliances

On 2 October 2018, the Group has completed the transfer of all its interests in the three Energy Alliances (Renewables, Grid and Nuclear) to General Electric and received a total cash payment of €2.594 billion (see note 9 and note 13).

Electrovoz Khurastyru Zauyty LLP (EKZ)

As at 22 December 2017, Alstom signed an agreement with the Kazakh national railway company (KTZ) to acquire their 25% stake in the EKZ Joint Venture (JV) for €21 million, recognized in March 2018 Group Financial Statement as non-current assets because of unmet suspensive conditions. As at 25 February 2019, all the suspensive conditions have been met and Alstom owns 75% of the shares, conferring the control over the Kazakh company, which is specialized in the manufacturing and the maintenance of electric locomotives especially for the Eurasian Economic Union and CIS markets.

Accordingly, the consolidation method has been changed from equity to full consolidation in application of IFRS3R. The gain related to the equity disposal amounts to €33 million (see note 6).

The fair value of the consideration transferred for the acquisition of EKZ has been estimated at €45 million.

In accordance with IFRS 3R, a preliminary valuation, based on the full goodwill option, has resulted in the recognition of new intangible assets (order backlog margin (for projects) and customer relationships), the re-measurement of liabilities as well as deferred tax liabilities recognition.

Recognised assets and liabilities may be subsequently adjusted during a maximum of twelve months from the acquisition date, depending on new information obtained about the facts and circumstances existing at the acquisition date (25 February 2019).

The preliminary goodwill amounts to €97 million (see note 11) and is mainly supported by the pipeline of opportunities on the Rolling stock business in this geographic area as well as by expected future synergies between EKZ and Alstom businesses.

(in € million)	**25 February 2019**
Total non-current assets	61
Total current assets	36
Total assets	**97**
Total non-current liabilities	20
Total current liabilities	129
Total liabilities	**149**
FAIR VALUE OF ASSETS/ (LIABILITIES) ATTRIBUTABLE TO THE SHAREHOLDERS OF THE GROUP	**(52)**
Consideration price	**45**
Goodwill	**97**

The contribution of EKZ (as a fully integrated entity) to the revenue and to the net result is not significant because of only one month of full consolidation.

NTL Holding

In January 2019, Alstom bought the remaining 49% of NTL Holding. This holding was created in 2012 jointly with Bpifrance to acquire the "Translohr" tramway on tires. Henceforth, Alstom owns 100% of the company and the consolidation method has been changed accordingly from equity to full consolidation. No significant impacts are expected in the group financial statement in the frame of this acquisition.

TMH Limited

In June 2018, TMH and Locotech Services agreed to combine under a new holding TMH Limited. Following the transaction, the contribution of Alstom has been diluted. In the meantime, additional shares of TMH Limited have been bought by the Group from the other shareholders to increase its ownership up to 20% for €115 million (before acquisition costs). The Group retains a significant influence. The financial impacts of this operation, and notably the dilutive effect, are presented in note 6 and 13.

21net

In April 2018, Alstom completed the 100% acquisition of 21net, expert in on-board internet and passenger infotainment for the railway industry. The company is headquartered in the UK with subsidiaries in Belgium, France, Italy and India.

The price allocation is now fully completed and generates a goodwill amounting to €10 million.

B. ACCOUNTING POLICIES AND USE OF ESTIMATES

NOTE 2. ACCOUNTING POLICIES

2.1 Basis of preparation of the consolidated financial statements

Alstom consolidated financial statements, for the year ended 31 March 2019, are presented in millions of Euros and have been prepared:

- in accordance with the International Financial Reporting Standards (IFRS) and interpretations published by the International Accounting Standards Board (IASB) and endorsed by the European Union and whose application was mandatory as at 31 March 2019;
- using the same accounting policies and measurement methods as at 31 March 2018, with the exceptions of changes required by the enforcement of new standards and interpretations presented here after.

The full set of standards endorsed by the European Union can be consulted at:

http://www.efrag.org/Endorsement

2.2 New standards and interpretations mandatorily applicable for financial periods beginning on 1 April 2018

2.2.1 IFRS15 Revenue from contracts with customers

Context

On 22 September 2016, European Union endorsed IFRS15 Revenue from Contracts with Customers (issued by IASB on 28 May 2014), which supersedes IAS11 on «construction contracts», IAS18 on Revenue for the sale of goods and the rendering of services, as well as other related interpretations. The new standard has become effective for Alstom for fiscal year beginning on 1 April 2018.

Transition method elected

Alstom has elected to apply the full retrospective method. Accordingly, opening equity at 1 April 2017 has been restated. To reflect the impact of applying IFRS15, the 2018/2019 consolidated financial statements include also restated comparative data for fiscal year 2017/2018.

Final impacts on equity restatement at 1 April 2017 and 31 March 2018

Alstom achieved several qualitative and quantitative conclusions:

- The identification of performance obligations has not led to significant changes versus previous practice.
- Most «construction contracts» as well as long term service agreements fulfill the requirements for revenue recognition over time and remain accounted for under the percentage of completion method. Nevertheless, the percentage of completion method used by Alstom changed. Previously, the stage of completion on «construction contracts» and long-term service agreements was assessed upon the milestones method which ascertained the stage of completion of a physical proportion of the contract work or the performance of services provided in the agreement.

  Under IFRS15, the percentage of completion method retained is the cost to cost method: revenue is now recognized for each performance obligation based on the percentage of costs incurred to date divided by the total costs expected at completion.

For each contract, depending on the stage of completion and the milestones reached compared to the costs incurred to date, this change in method impacts the phasing in the recognition of revenue and margin from one period to another. The analysis performed on the current portfolio of contracts has reduced equity at the opening date of 1 April 2017 by €229 million (€286 million at 31 March 2018).

- Moreover, the new standard provides more restrictive guidance on the transaction price estimates and especially on variable consideration and contract modifications. The estimation of the transaction price should include variable amounts and/or contract modifications to the extent that it is highly probable that no significant reversal in the amount of cumulative revenues recognized will occur when the uncertainty associated with these elements is subsequently resolved. The introduction of this constraint on the price escalation estimates on the one hand, as well as the incorporation of amendments under negotiation on the other hand, has led to recognize these effects on contract value at a later point in time, when they become enforceable. This had thus the effect of deferring revenue and margin and contributed to reduce equity at restatement date by approximatively €96 million for price escalation estimate and €193 million for contract amendments at 1 April 2017 (respectively €90 million and €221 at 31 March 18).
- No significant financial component has been identified except for one contract, since timing of cash receipts and revenue recognition under cost to cost method do not differ substantially. This has led to no material effect on equity either at restatement date or at 31 March 2018.

The impact of applying IFRS15 resulted in a reduction of equity of, respectively €518 million at 1 April 2017 and €597 million at 31 March 2018.

These changes have an impact on the timing of revenues and margins and resulted in a reduction of equity at the date of restatement as well as at 31 March 2018, but the new standard does not affect the cash position of the contracts and has no impact on the economy of the contracts at completion.

Final impacts on balance sheet presentation

Besides, changes to the balance sheet presentation occurred due to IFRS15 implementation.

The main changes in the balance sheet presentation can be summarized in the following way:

- With respect to the «construction contracts» and long term service agreements, the captions "construction contracts in progress, assets" and "construction contracts in progress, liabilities" disappeared. The advance payments received from customers were presented exclusively in the aggregate "construction contracts in progress, liabilities".
- New aggregates called "contract assets" and "contract liabilities" are disclosed for «construction contracts» and long term service agreements in progress and are determined on a contract-by-contract basis. The aggregate "contract assets" corresponds to the unbilled part of revenues recognized to date net of the advance payments received from customers. Unbilled part of revenue corresponds to revenue recognized to date in excess of progress billings.

  On the contrary, when progress billings are in excess of revenue recognized to date, the net amount is accounted for as deferred income and aggregated with the related advance payments received from customers under the caption "contract liabilities".
- In accordance with IAS37 Provisions, Contingent Liabilities and Contingent Assets, the present obligations under contracts remain measured using the same valuation principles. Nevertheless, they are presented as current provisions and no longer in "construction contracts in progress" (as per former IAS11 application).

- In addition, for costs incurred in fulfilling a contract with a customer that are within the scope of other standards, namely IAS2 Inventories, IAS16 Property, Plant and Equipment, IAS38 Intangible assets, these costs are accounted for in accordance with those other standards that apply primarily. For instance, product development costs falling under the scope of IAS38 were reclassified from project to research and development costs.

  For other costs incurred in fulfilling a contract that are not within the scope of the standards stated above, those costs should be accounted for under a new caption called "costs to fulfil a contract" when eligible for capitalization. Therefore, related amounts in "construction contracts in progress" have been reclassified accordingly.

Other topics

- Under IFRS15, quantitative and qualitative disclosures are requested on transaction price allocated to the remaining performance obligations, which corresponds to Alstom's definition of order backlog as reported in Management Report.
- Order backlog represents sales not yet recognized from orders already received. Order backlog at the end of a financial year is computed as follows:
  - Order backlog at the beginning of the year;
  - Plus new orders received during the year;
  - Less sales recognized during the year
  - Plus/Less adjustments on transaction price (including cancellations of orders, changes in scope of consolidation, contract price adjustments, foreign currency translation effects…)

The change in percentage of completion method from milestones to cost to cost, as well as the deferral of revenue at a later point in time for price escalation estimates and contract amendments, resulted in a new valuation of the order backlog to approximatively €37.1 billion at 1 April 2017 and €35.2 billion at 31 March 2018.

2.2.2 IFRS9 Financial instruments

IFRS9 Financial Instruments introduces a single approach to classification and measurement of financial instruments based on the characteristics of the financial instruments and on the Group's management intention. The standard includes also a revised guidance on impairment on financial assets as well as new general hedge accounting requirements.

This new standard has become effective for Alstom for fiscal year starting 1 April 2018. The review and analysis of this standard has not concluded to any material impact on its consolidated financial statements. IFRS9 new accounting treatments have been applied retrospectively, with disclosure of comparative information for FY17/18.

All hedging relationships existing under IAS39 are maintained under IFRS9.

In addition, two options have been elected:

- In the course of its operations, the group is exposed to currency risk arising from operational transactions in foreign currency: future cash in but also future cash out transactions. Thus, the Group puts in place a significant volume of hedges at inception of the contract to cover these exposures applying fair value hedge accounting. As the hedged item is a Firm Commitment, Group retained the "time period related approach", allowing to recognize cost of hedging impacts over hedge maturity on a linear basis. When Alstom designates only foreign exchange spot changes as hedged item, the cost of hedging approach will be retained, allowing the Group to recognize the change in fair value of forward points in Other Comprehensive Income (rather than in income statement under IAS39). This option has no significant impact on March 2018 restated equity, but a reclassification was performed between Profit and Loss and Other Comprehensive Income with an impact of €(11) million on the financial result of fiscal year 17/18 restated.

- For the portfolio of non-consolidated investments (previously designated as available for sale financial assets), Alstom has elected to record the change in fair value on these investments through Other Comprehensive Income with no subsequent recycling in income statement. This option has no impact on March 2018 restated equity.

Finally, the new standard modifies the recognition of the credit risk related to financial assets and especially trade receivables, moving from the incurred loss approach to an expected loss approach.

Nevertheless, from the Group perspective, the application of IFRS9 impairment requirements resulted in no material impact over the impairment already accounted for under IAS39.

2.2.3 Restated financial statements

The following tables present the impact of changes related to the application of the new accounting standards, IFRS15 and IFRS9 as described above:

Income statement

At 31 March 2018

(in € million)	Year ended 31 March 2018 published	Restatement IFRS 9 & 15	Year ended 31 March 2018 restated
Sales	**7,951**	**(605)**	**7,346**
Cost of sales	(6,686)	559	(6,127)
Research and development expenses	(188)	(64)	(252)
Selling expenses	(204)	(7)	(211)
Administrative expenses	(359)	-	(359)
Other income/(expense)	(133)	-	(133)
Earnings Before Interests and Taxes	**381**	**(117)**	**264**
Financial income	7	3	10
Financial expense	(98)	(11)	(109)
Pre-tax income	**290**	**(125)**	**165**
Income Tax Charge	(73)	14	(59)
Share in net income of equity-accounted investments	216	-	216
Net profit from continuing operations	**433**	**(111)**	**322**
Net profit from discontinued operations	52	-	52
NET PROFIT	**485**	**(111)**	**374**
Net profit attributable to equity holders of the parent	475	(110)	365
Net profit attributable to non controlling interests	10	(1)	9
Net profit from continuing operations attributable to:			
• Equity holders of the parent	423	(110)	313
• Non controlling interests	10	(1)	9
Net profit from discontinued operations attributable to:			
• Equity holders of the parent	52	-	52
• Non controlling interests	-	-	-

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Balance sheet

At 31 March 2017

Assets

(in € million)	At 31 March 2017 published	Restatement IFRS 9 & 15	At 31 March 2017 restated
Goodwill	1,513	-	1,513
Intangible assets	395	3	398
Property, plant and equipment	749	33	782
Investments in joint-venture and associates	2,755	-	2,755
Non consolidated investments	55	-	55
Other non-current assets	316	-	316
Deferred Tax	189	69	258
Total non-current assets	**5,972**	**105**	**6,077**
Inventories	916	487	1,403
Construction contracts in progress, assets	2,834	(2,834)	-
Contract assets	-	1,152	1,152
Trade receivables	1,693	249	1,942
Other current operating assets	1,365	27	1,392
Other current financial assets	8	-	8
Cash and cash equivalents	1,563	-	1,563
Total current assets	**8,379**	**(919)**	**7,460**
Assets held for sale	10	-	10
TOTAL ASSETS	**14,361**	**(814)**	**13,547**

Equity and liabilities

(in € million)	At 31 March 2017 published	Restatement IFRS 9 & 15	At 31 March 2017 restated
Equity attributable to the equity holders of the parent	3,661	(511)	3,150
Non controlling interests	52	(7)	45
Total equity (*)	**3,713**	**(518)**	**3,195**
Non current provisions	614	-	614
Accrued pensions and other employee benefits	526	-	526
Non-current borrowings	1,362	-	1,362
Non-current obligations under finance leases	233	-	233
Deferred Tax	23	-	23
Total non-current liabilities	**2,758**	-	**2,758**
Current provisions	250	582	832
Current borrowings	416	-	416
Current obligations under finance leases	28	-	28
Construction contract in progress, Liabilities	4,486	(4,486)	-
Contract liabilities	-	3,320	3,320
Trade payables	1,029	-	1,029
Other current liabilities	1,674	288	1,962
Total current liabilities	**7,883**	**(296)**	**7,587**
Liabilities related to assets held for sale	7	-	7
TOTAL EQUITY AND LIABILITIES	**14,361**	**(814)**	**13,547**

(*) €(469) million as published in half year 30 September 2018 consolidated accounts.

ALSTOM

At 31 March 2018

Assets

(in € million)	At 31 March 2018	Restatement IFRS 9 & 15	At 31 March 2018 IFRS 15
Goodwill	1,422	-	1,422
Intangible assets	410	6	416
Property, plant and equipment	831	23	854
Investments in joint-venture and associates	533	-	533
Non consolidated investments	58	-	58
Other non-current assets	277	-	277
Deferred Tax	224	81	305
Total non-current assets	**3,755**	**110**	**3,865**
Inventories	1,146	294	1,440
Construction contracts in progress, assets	2,675	(2,675)	-
Contract assets	-	1,212	1,212
Trade receivables	1,589	183	1,772
Other current operating assets	1,328	-	1,328
Other current financial assets	8	-	8
Cash and cash equivalents	1,231	-	1,231
Total current assets	**7,977**	**(986)**	**6,991**
Assets held for sale	2,390	-	2,390
TOTAL ASSETS	**14,122**	**(876)**	**13,246**

Equity and liabilities

(in € million)	At 31 March 2018	Restatement IFRS 9 & 15	At 31 March 2018 IFRS 15
Equity attributable to the equity holders of the parent	3,966	(590)	3,376
Non controlling interests	61	(7)	54
Total equity (*)	**4,027**	**(597)**	**3,430**
Non current provisions	530	-	530
Accrued pensions and other employee benefits	468	-	468
Non-current borrowings	952	-	952
Non-current obligations under finance leases	212	-	212
Deferred Tax	22	-	22
Total non-current liabilities	**2,184**	**-**	**2,184**
Current provisions	313	513	826
Current borrowings	525	-	525
Current obligations under finance leases	18	-	18
Construction contract in progress, Liabilities	4,147	(4,147)	-
Contract liabilities	-	3,157	3,157
Trade payables	1,346	-	1,346
Other current liabilities	1,555	198	1,753
Total current liabilities	**7,904**	**(279)**	**7,625**
Liabilities related to assets held for sale	7	-	7
TOTAL EQUITY AND LIABILITIES	**14,122**	**(876)**	**13,246**

(*) €(548) million as published in half year 30 September 2018 consolidated accounts.

ALSTOM

Cash-Flow Statement

At 31 March 2018

(en millions d'€)	Year ended 31 March 2018 published	Restatement IFRS 9 & 15	Year ended 31 March 2018 restated
Net profit	**485**	**(111)**	**374**
Depreciation, amortisation and impairment	161	10	171
Expense arising from share-based payments	18	-	18
Cost of net financial debt and costs of foreign exchange hedging, net of interest paid and received (a) , and other change in provisions	5	12	17
Post-employment and other long-term defined employee benefits	19	-	19
Net (gains)/losses on disposal of assets	2	-	2
Share of net income (loss) of equity-accounted investments (net of dividends received)	(197)	(1)	(198)
Deferred taxes charged to income statement	(52)	(13)	(65)
Net cash provided by operating activities - before changes in working capital	**441**	**(103)**	**338**
Changes in working capital resulting from operating activities (b)	**(33)**	**113**	**80**
Net cash provided by/(used in) operating activities	**408**	**10**	**418**
Of which operating flows provided / (used) by discontinued operations	-	-	-
Proceeds from disposals of tangible and intangible assets	3	-	3
Capital expenditure (including capitalised R&D costs)	(283)	(10)	(293)
Increase/(decrease) in other non-current assets	21	-	21
Acquisitions of businesses, net of cash acquired	(4)	-	(4)
Disposals of businesses, net of cash sold	(80)	-	(80)
Net cash provided by/(used in) investing activities	**(343)**	**(10)**	**(353)**
Of which investing flows provided / (used) by discontinued operations	*(82)*	-	*(82)*
Capital increase/(decrease) including non controlling interests	47	-	47
Dividends paid including payments to non controlling interests	(60)	-	(60)
Issuances of bonds & notes	-	-	-
Repayments of bonds & notes issued	(272)	-	(272)
Changes in current and non-current borrowings	7	-	7
Changes in obligations under finance leases	(27)	-	(27)
Changes in other current financial assets and liabilities	-	-	-
Net cash provided by/(used in) financing activities	**(305)**	**-**	**(305)**
Of which financing flows provided / (used) by discontinued operations	-	-	-
NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS	**(240)**	**-**	**(240)**
Cash and cash equivalents at the beginning of the period	1,563	-	1,563
Net effect of exchange rate variations	(92)	-	(92)
CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD	**1,231**	**-**	**1,231**
(a) Net of interests paid & received	*(66)*	-	*(66)*
(b) Income tax paid	*(93)*	-	*(93)*

2.2.4 Other new standards and interpretations mandatorily applicable for financial periods beginning on 1 April 2018

Several amendments are applicable at 1 April 2018:

- Interpretation IFRIC22 – Foreign Currency Transactions and Advance Consideration;
- Amendment to IFRS2 – Clarifications of classification and measurement of share-based payment transactions;
- Annual Improvements to the 2014-2016 IFRS Cycle.

All these amendments effective at 1 April 2018 for Alstom have no material impact on the Group's consolidated financial statements.

2.3 New standards and interpretations not yet mandatorily applicable

New standards and interpretations endorsed by the European Union not yet mandatorily applicable

- IFRS16 – Leases, applicable from 1st January 2019, introduces a single lessee accounting model for almost all leases contracts under which a lessee is required to recognize a right-of-use leased asset and a lease liability representing its obligation to make lease payments.

  For its transition method, the Group has elected to apply the simplified approach. Prior-period comparative data will therefore not be restated at the transition date. The Group doesn't expect any significant impact on the opening equity. On initial application of IFRS16 to operating leases, the right-of-use asset will generally be measured at the amount of the lease liability, using a discount rate per currency at the date of initial application, with the discount rate applied to each contract depending on the term and the currency of this contract.

  The Group has decided to apply the exemptions related to short-term leases and to leases of low value assets as soon as the new standard is effective.

  The Group's operating leases mainly relate to real estate assets, company cars and industrial equipment. The company has finalized the implementation of software to compute IFRS16 calculations.

  IFRS16 preliminary debt computation was performed based on the detailed inventory and on the review of the operating lease commitments, which are presented in note 34. Based on a first estimate, the lease financial liability would approximatively be comprised between €0.4 billion and €0.5 billion for the next fiscal year 2019/20.
- IFRIC23 Uncertainty over income tax treatments. The interpretation will be applicable for annual periods beginning after 1 January 2019;
- Amendments to IAS28: Long-term interests in associates and joint ventures. The amendment will be applicable for annual periods beginning after 1 January 2019;
- Amendments to IAS19: Plan Amendment, curtailment or settlement. The amendments will be applicable for annual periods beginning after 1 January 2019;
- Annual Improvements to the 2015-2017 IFRS Cycle. The amendments will be applicable for annual periods beginning after 1 January 2019.

The potential impacts of these last amendments are currently being analyzed.

New standards and interpretations not yet approved by the European Union

- Amendments to References to the Conceptual Framework in IFRS Standards. The amendments will be applicable for annual periods beginning after 1 January 2020.
- Amendment to IFRS3 Business Combinations. The amendment will be applicable for annual periods beginning after 1 January 2020.
- Amendments to IAS1 and IAS8: Definition of material. The amendments will be applicable for annual periods beginning after 1 January 2020.

The potential impacts of these new pronouncements are currently being analyzed.

2.4 Use of estimates

The preparation of the consolidated financial statements in conformity with IFRS requires management to make various estimates and to use assumptions regarded as realistic and reasonable. These estimates or assumptions could affect the value of the Group's assets, liabilities, equity, net income and contingent assets and liabilities at the closing date. Management reviews estimates on an on-going basis using information currently available. Actual results may differ from those estimates, due to changes in facts and circumstances.

The accounting policies most affected by the use of estimates are the following:

Revenue and margin recognition on construction and long-term service contracts and related provisions

The Group recognises revenue and gross margin on most construction and long-term service contracts fulfilling the requirements for revenue recognition over time, using the percentage of completion method based on cost to cost: revenue is in that case recognized based on the percentage of costs incurred to date divided by the total costs at completion. Moreover, when a project review indicates a negative gross margin, the estimated loss at completion is immediately recognised.

Recognised revenue and margin are based on estimates of total expected contract revenue and cost, which are subject to revisions as the contract progresses. Total expected revenue and cost on a contract reflect management's current best estimate of the probable future benefits and obligations associated with the contract.

Assumptions to calculate present and future obligations take into account current technology as well as the commercial and contractual positions, assessed on a contract-by-contract basis (one performance obligation corresponding in most cases to one contract). The introduction of technologically-advanced products exposes the Group to risks of product failure significantly beyond the terms of standard contractual warranties applicable to suppliers of equipment only.

Obligations on contracts may result in penalties due to late completion of contractual milestones, or unanticipated costs due to project modifications, suppliers or subcontractors' failure to perform or delays caused by unexpected conditions or events. Warranty obligations are affected by product failure rates, material usage and service delivery costs incurred in correcting failures.

Although the Group makes individual assessments on contracts on a regular basis, there is a risk that actual costs related to those obligations may exceed initial estimates. Estimates of contract costs and revenues at completion in case of contracts in progress and estimates of provisions in case of completed contracts may then have to be re-assessed.

Estimate of provisions relating to litigations

The Group identifies and analyses on a regular basis current litigations and measures, when necessary, provisions on the basis of its best estimate of the expenditure required to settle the obligation at the balance sheet date. These estimates take into account information available and different possible outcomes.

Valuation of deferred tax assets

Management judgment is required to determine the extent to which deferred tax assets can be recognised. Future sources of taxable income and the effects of the Group global income tax strategies are taken into account in making this determination. This assessment is conducted through a detailed review of deferred tax assets by jurisdiction and takes into account past, current and future performance deriving from the existing contracts in the order book, the budget and the three-year plan, and the length of carry back, carry forwards and expiry periods of net operating losses.

Measurement of post-employment and other long-term defined employee benefits

The measurement of obligations and assets related to defined benefit plans makes it necessary to use several statistical and other factors that attempt to anticipate future events. These factors include assumptions about the discount rate, the rate of future compensation increases as well as withdrawal and mortality rates. If actuarial assumptions materially differ from actual results, it could result in a significant change in the employee benefit expense recognised in the income statement, actuarial gains and losses recognised in other comprehensive income and prepaid and accrued benefits.

Valuation of assets

The discounted cash flow model used to determine the recoverable value of the group of cash generating unit to which goodwill is allocated includes a number of inputs including estimates of future cash flows, discount rates and other variables, and then requires significant judgment.

Impairment tests performed on intangible and tangible assets are also based on assumptions. Future adverse changes in market conditions or poor operating results from underlying assets could result in an inability to recover their current carrying value.

Inventories

Inventories, including work in progress, are measured at the lower of cost and net realisable value. Write-down of inventories are calculated based on an analysis of foreseeable changes in demand, technology or market conditions in order to determine obsolete or excess inventories. If actual market conditions are less favourable than those projected, additional inventory write-downs may be required.

2.5 Significant accounting policies

2.5.1 Consolidation methods

Subsidiaries

Subsidiaries are entities over which the Group exercises control.

The Group controls an entity when (i) it has power over this entity, (ii) is exposed to or has rights to variable returns from its involvement with that entity, and (iii) has the ability to use its power over that entity to affect the amount of those returns.

Subsidiaries are fully consolidated in the consolidated financial statements from the date on which control is transferred to the Group and deconsolidated from the date that control ceases.

Inter-company balances and transactions are eliminated.

Non-controlling interests in the net assets of consolidated subsidiaries are identified in a specific line of the equity named "Non-controlling interests". Non-controlling interests consist of the amount of those interests at the date of the original business combination and their share of changes in equity since the date of the combination. In the absence of explicit agreements to the contrary, subsidiaries' losses are systematically allocated between equity holders of the parent and non-controlling interests based on their respective ownership interests even if this results in the non-controlling interests having a deficit balance.

Transactions with non-controlling interests that do not result in loss of control are considered as transactions between shareholders and accounted for in equity.

Joint arrangements

Joint arrangements are the entities over which the Group has joint control.

The Group jointly controls an entity when decisions relating to the relevant activities of that entity require unanimous consent of the Group and the other parties who share control.

A joint arrangement is classified either as a joint operation or as a joint venture. The classification is based on the rights and obligations of the parties to the arrangement, taking into consideration the structure and legal form of the arrangement, the terms agreed by the parties in the contractual arrangement and, when relevant, other facts and circumstances (see also Note 13):

- **Joint operations**

Joint operations are entities in which the Group has rights to the assets and obligations for the liabilities.

The Group recognises the assets, liabilities, revenues and expenses related to its interests in the joint operation. A joint operation may be conducted under a separate vehicle or not.

- **Joint ventures**

Joint ventures are entities in which the Group only has rights to the net assets.

Interests in joint ventures are consolidated under the equity method as described in the paragraph below.

Investments in associates

Associates are entities over which the Group has significant influence. In other words, the Group has the possibility to participate in decisions related to these entities' financial and operating policies without having control (exclusive or joint).

Generally, the existence of significant influence is consistent with a level of voting right held by the Group between 20% and 50%.

If need be, accounting policies of associates will be standardized with the Group accounting policies.

Interests in associates are consolidated under the equity method in the consolidated financial statements as described in the paragraph below.

Equity method

The Group accounts for its interests in associates and joint ventures under the equity method. Wherever necessary, accounting policies of associates and joint ventures have been changed to ensure consistency with the IFRS framework.

Under the equity method, investments in associates are carried in the consolidated balance sheet at cost, including any goodwill arising and transaction costs. Earn-outs are initially recorded at fair value and adjustments recorded through cost of investment when their payments are probable and can be measured with sufficient reliability.

Any excess of the cost of acquisition over the Group's share of the net fair value of the identifiable assets, liabilities and contingent liabilities of the associate or joint venture recognized at the date of acquisition is recognized as goodwill. The goodwill is included within the carrying amount of the investment and is assessed for impairment as part of the investment.

In case of an associate or joint venture purchased by stage, the Group uses the cost method to account for changes from non-consolidated investments category to "Investments in joint ventures and associates".

Associates and joint ventures are presented in the specific line "Investments in joint ventures and associates" of the balance sheet, and the Group's share of its associates' profits or losses is recognized in the line "Share of net income of equity-accounted investments" of the income statement whereas its share of post-acquisition movements in reserves is recognized in reserves.

Losses of an associate or joint venture in excess of the Group's interest in that associate or joint venture are not recognized, except if the Group has a legal or implicit obligation.

The impairment expense of investments in associates and joint ventures is recorded in the line "Share of net income of equity-accounted investments" of the income statement.

According to IAS 28, if the financial statements of an associate used in applying the equity method are prepared as of a different date from that of the investor, adjustments shall be made for the effects of significant transactions or events that occur between that date and the date of the investor's financial statements. In any case, the difference between the end of the reporting period of the associate and that of the investor shall be no more than three months.

According to IFRS 9, liquidity rights related to Energy alliances are booked at fair market value without external model based on observable factors, taking into account internal assumptions. These put options are considered and accounted for by the Group as share derivatives under cash flow hedge. This liquidity rights are accounted for as part as the joint venture caption on the line "investments in joint-ventures and associates".

2.5.2 Assets held for sale

Non-current assets held for sale are presented on a separate line of the balance sheet when (i) the Group has made a decision to sell the asset(s) concerned and (ii) the sale is considered to be highly probable. These assets are measured at the lower of net carrying amount and fair value less costs to sell.

When the Group is committed to a sale process leading to the loss of control of a subsidiary, all assets and liabilities of that subsidiary are reclassified as held for sale, irrespective of whether the Group retains a residual interest in the entity after sale.

2.5.3 Cash flow hedge

When cash flow hedge applies, the portion of the gain or loss on the hedging instrument that is determined to be an effective hedge is recognized in other comprehensive income.

If a hedge of a forecast transaction subsequently resulting in the recognition of a non-financial asset qualifies for cash flow hedge, then the entity shall reclassify the associated gains and losses that were recognized in other comprehensive income to profit or loss in the same period or periods during which the asset acquired or liability assumed affects profit or loss.

2.5.4 Translation of financial statements denominated in currencies other than euro

Functional currency is the currency of the primary economic environment in which a reporting entity operates, which in most cases, corresponds to the local currency. However, some reporting entities may have a functional currency different from local currency when that other currency is used for the entity's main transactions and faithfully reflects its economic environment.

Assets and liabilities of entities whose functional currency is other than the euro are translated into euro at closing exchange rate at the end of each reporting period while their income and cash flow statements are translated at the average exchange rate for the period.

The currency translation adjustments resulting from the use of different currency rates for opening balance sheet positions, transactions of the period and closing balance sheet positions are recorded in other comprehensive income. Translation adjustments are transferred to the consolidated income statement at the time of the disposal of the related entity.

Goodwill and fair value adjustments arising from the acquisition of entities whose functional currency is not euro are designated as assets and liabilities of those entities and therefore denominated in their functional currencies and translated at the closing rate at the end of each reporting period.

2.5.5 Business combinations

Business combinations completed between the 1 January 2004 and the 31 March 2010 have been recognised applying the provisions of the previous version of IFRS 3.

Business combinations completed from the 1 April 2010 onwards are recognised in accordance with IFRS 3R.

The Group applies the acquisition method to account for business combinations. The consideration transferred for the acquisition of a subsidiary is the sum of fair values of the assets transferred and the liabilities incurred by the acquirer at the acquisition date and the equity-interest issued by the acquirer. The consideration transferred includes contingent consideration, measured and recognized at fair value at the acquisition date.

For each business combination, any non-controlling interest in the acquiree may be measured:

- either at the acquisition-date fair value, leading to the recognition of the non-controlling interest's share of goodwill (full goodwill method) or;
- either at the non-controlling interest's proportionate share of the acquiree's identifiable net assets, resulting in recognition of only the share of goodwill attributable to equity holders of the parent (partial goodwill method).

Acquisition-related costs are recorded as an expense as incurred.

Goodwill arising from a business combination is measured as the difference between:

- the fair value of the consideration transferred for an acquiree plus the amount of any non-controlling interests of the acquiree and;
- the net fair value of the identifiable assets acquired and liabilities assumed at the acquisition date.

Initial estimates of consideration transferred and fair values of assets acquired and liabilities assumed are finalised within twelve months after the date of acquisition and any adjustments are accounted for as retroactive adjustments to goodwill. Beyond this twelve-month period, any adjustment is directly recognised in the income statement.

Earn-outs are initially recorded at fair value and adjustments made beyond the twelve-month measurement period following the acquisition are systematically recognised through profit or loss.

In case of a step-acquisition that leads to the Group acquiring control of the acquiree, the equity interest previously held by the Group is remeasured at its acquisition-date fair value and any resulting gain or loss is recognised in profit or loss.

2.5.6 Sales and costs generated by operating activities

Measurement of sales and costs

The amount of revenue arising from a transaction is usually determined by the contractual agreement with the customer. IFRS 15 provides more restrictive guidance on the transaction price estimates and especially on variable consideration and contract modifications.

The estimation of the transaction price should include variable amounts and/or contract modifications to the extent that it is highly probable that no significant reversal in the amount of cumulative revenues recognized will occur when the uncertainty associated with these elements is subsequently resolved. The introduction of this constraint on the price escalation estimate on the one hand, as well as the incorporation of amendments under negotiation on the other hand, leads to recognize these effects on contract value at a later point in time, when they become enforceable.

In the case of «construction contracts» claims are considered in the determination of contract revenue only when it is highly probable that the claim will result in additional revenue and the amount can be reliably estimated.

Penalties are first taken into account as an increase of contract costs and in a second step as a reduction of contract revenue as soon as they are accepted.

Finally, a significant financial component should be introduced positively or negatively on revenue, when timing of cash receipts and revenue recognition under cost to cost method differ substantially.

Production costs include direct costs (such as material, labour and warranty costs) and indirect costs. Warranty costs are estimated on the basis of contractual agreement, available statistical data and weighting of all possible outcomes against their associated probabilities. Warranty periods may extend up to five years. Selling and administrative expenses are excluded from production costs.

Recognition of sales and costs

Revenue on sale of manufactured products is recognised according to IFRS 15 at a point in time, i.e. essentially when the significant risks and rewards of ownership are transferred to the customer, which generally occurs on delivery. Revenue on short-term service contracts is also accounted for at a point in time and recognised on performance of the related service. All production costs incurred or to be incurred in respect of the sale are charged to cost of sales at the date of recognition of sales.

Revenue on most of «construction contracts» and long-term service agreements is recognised according to IFRS 15 based on the percentage of completion method as they fulfill the requirements for revenue recognition over time: the stage of completion is assessed on the cost to cost method. Revenue is recognised for each performance obligation based on the percentage of costs incurred to date divided by the total costs expected at completion. Consequently, the revenue for the period is the excess of revenue measured according to the percentage of completion over the revenue recognised in prior periods.

Cost of sales on «construction contracts» and long-term service agreements is computed on the same basis. The cost of sales for the period is the excess of cost measured according to the percentage of completion over the cost of sales recognised in prior periods. As a consequence, adjustments to contract estimates resulting from work conditions and performance are recognised in cost of sales as soon as they occur, prorated to the stage of completion.

When the outcome of a contract cannot be estimated reliably, but the Group expects to recover the costs incurred in satisfying the contract, revenue is recognised only to the extent of the costs incurred until such time that the outcome of the contract can be reasonably measured.

Costs incurred that are attributable to significant inefficiencies in the Group's performance and that were not reflected in the price of the contract when the contract was negotiated with the customer should not be included in the percentage of completion formula and expensed when incurred.

When it is probable that contract costs at completion will exceed total contract revenue, the expected loss at completion is recognised immediately as an expense. Bid costs are recorded as selling expenses when incurred.

2.5.7 Impairment of goodwill, tangible and intangible assets

Assets that have an indefinite useful life – mainly goodwill and intangible assets not yet ready to use – are not amortized but tested for impairment at least annually or when there are indicators that they may be impaired. Other intangible and tangible assets subject to amortization are tested for impairment only if there are indicators of impairment.

The impairment test methodology is based on a comparison between the recoverable amount of an asset and its net carrying value. If the recoverable amount of an asset or a cash-generating unit (CGU) is estimated to be less than its carrying amount, the carrying amount is reduced to its recoverable amount and the impairment loss is recognised immediately in the income statement. In the case of goodwill allocated to a group of CGUs, the impairment loss is allocated first to reduce the carrying amount of goodwill and then to the other assets on a pro-rata basis of the carrying amount of each asset.

A cash-generating unit is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other groups of assets. If an asset does not generate cash inflows that are largely independent of other assets or groups of assets, the recoverable amount is determined for a cash-generating unit.

The recoverable amount is the higher of fair value less costs to sell and value in use. The value in use is elected as representative of the recoverable value. The valuation performed is based upon the Group's internal three-year business plan. Cash flows beyond this period are estimated using a perpetual long-term growth rate for the subsequent years. The recoverable amount is the sum of the discounted cash flows and the discounted terminal residual value. Discount rates are determined using the weighted-average cost of capital.

Impairment losses recognised in respect of goodwill cannot be reversed.

The impairment losses recognized in respect of other assets than goodwill may be reversed in a later period and recognized immediately in the income statement. The carrying amount is increased to the revised estimate of recoverable amount, so that the increased carrying amount does not exceed the carrying amount that would have been determined, if no impairment loss had been recognized in prior years.

C. SEGMENT INFORMATION

NOTE 3. SEGMENT INFORMATION

The Group organization, customer focused and also influenced by an increasing number of integrated services, leading to complete and turnkey solutions, leads to present financial information issued through various axes of analysis (regions, sites, contracts, functions and products). None of these axes allow for a comprehensive operating profit and loss measure nor segment assets and liabilities.

The segment information issued to the Alstom Executive Committee, identified as the Group's Chief Operating Decisions Maker (CODM) presents Key Performance Indicators at Group level. Strategic decisions and resource allocation are driven based on this reporting. The segment information has been adapted according to a similar method as those used to prepare the consolidated financial statements.

3.1 Sales by product

	Year ended	
(in € million)	31 March 2019	31 March 2018 (*)
Rolling stock	3,448	3,150
Services	1,556	1,354
Systems	1,766	1,527
Signalling	1,302	1,315
TOTAL GROUP	**8,072**	**7,346**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

3.2 Key indicators by geographic area

Sales by country of destination

	Year ended	
(in € million)	31 March 2019	31 March 2018 (*)
Europe	4,061	3,749
of which France	*1,218*	*1,040*
Americas	1,470	1,333
Asia & Pacific	921	900
Middle-East & Africa	1,620	1,364
TOTAL GROUP	**8,072**	**7,346**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

ALSTOM

Non-current assets by country of origin

Non-current assets by country of origin are defined as non-current assets other than those related to financial debt, to employee defined benefit plans and deferred tax assets (See Section E).

	Year ended	
(in € million)	31 March 2019	31 March 2018 (*)
Europe	1,647	1,349
of which France	*622*	*600*
Americas	149	119
Asia / Pacific	253	225
Middle East / Africa	189	119
Total excluding alliances and goodwill	**2,238**	**1,812**
Alliances	-	**113**
Goodwill	**1,574**	**1,422**
Alliances and goodwill	**1,574**	**1,535**
TOTAL GROUP	**3,812**	**3,347**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

3.3 Orders Backlog

Product breakdown

(in € million)	At 31 March 2019	At 31 March 2018
Rolling stock	20,672	17,971
Services	12,779	10,660
Systems	3,311	3,355
Signalling	3,719	3,253
TOTAL GROUP	**40,481**	**35,239**

Geographic breakdown

(in € million)	At 31 March 2019	At 31 March 2018
Europe	18,212	14,453
of which France	*6,802*	*4,016*
Americas	6,297	5,212
Asia & Pacific	5,752	5,017
Middle-East & Africa	10,220	10,557
TOTAL GROUP	**40,481**	**35,239**

The March 2019 backlog contribution to the next three fiscal years revenue is expected to land within a €16.5 billion - €17.5 billion range.

3.4 Information about major customers

No external customer represents individually 10% or more of the Group's consolidated sales.

D. OTHER INCOME STATEMENT

NOTE 4. RESEARCH AND DEVELOPMENT EXPENDITURE

Research expenditure is expensed as incurred. Development costs are expensed as incurred unless the project they relate to meets the criteria for capitalisation (see Note 11). Research and Development costs cover also product sustainability costs booked when incurred.

	Year ended	
(in € million)	31 March 2019	31 March 2018 (*)
Research and development gross cost	(380)	(345)
Funding received	75	58
Research and development spending, net	**(305)**	**(287)**
Development costs capitalised during the period	68	90
Amortisation expense of capitalised development costs	(54)	(55)
Research and development expenses	**(291)**	**(252)**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

During the fiscal year ended 31 March 2019, research and development expenses amount to €291 million, notably related to the following projects:

- the "Very high-speed train" Avelia™, for which SNCF ordered 100 trains in July 2018;
- the zero-emission train Coradia iLintTM, with a commercial passenger service starting in September 2018 in Germany;
- the 100% electric bus, Aptis™: a dedicated entity was created in June 2018 for production and selling and for which a first order has been awarded in March 2019 by Strasbourg for 12 bus;
- the extension of Citadis™ light rail vehicle range with steel case, for which the first order was notified by Frankfurt in June 2018;
- the new multimodal traffic solution Mastria™ which has been communicated widely on Innotrans of September 2018;
- the official launch of Station One™ the new digital platform of ALSTOM in March 2019.

NOTE 5. SELLING AND ADMINISTRATIVE EXPENSES

Selling Costs are expenses incurred in the marketing and selling of a product or a service. Selling Costs typically include expenditure in the following departments: Market & Strategy, Sales & Business Development and Communication as well as the direct labour costs of operational population such as engineering working on the tendering phase.

Administrative Costs are structure and operational support costs. Administrative Costs include mostly expenditure of Headquarter and of site functions having a transverse role, in particular Finance, Human Resources, Legal and Information Systems departments.

Selling and administrative expenses are recognized in charges as incurred.

Effective control of the cost structure has contributed to constraint selling and administrative expenses in an increasing environment.

NOTE 6. OTHER INCOME AND OTHER EXPENSES

Other income and expenses are representative of items which are inherently difficult to predict due to their unusual, irregular or non-recurring nature.

Other income may include capital gains on disposal of investments or activities and capital gains on disposal of tangible and intangible assets arising from activities disposed or facing restructuring plans, any income associated to past disposals as well as a portion of post-employment and other long-term defined employee benefits (plan amendments, impact of curtailments and settlements and actuarial gains on long-term benefits other than post-employment benefits).

Other expenses include capital losses on disposal of investments or activities and capital losses on disposal of tangible and intangible assets relating to activities facing restructuring plans as well as any costs associated to past disposals, restructuring costs, rationalisation costs, significant impairment losses on assets, costs incurred to realize business combinations and amortisation expense of assets exclusively acquired in the context of business combinations (technology, customer relationship, margin in backlog, margin on inventory), litigation costs that have arisen outside the ordinary course of business and a portion of post-employment and other long-term defined benefit expense.

	Year ended	
(in € million)	31 March 2019	31 March 2018
Capital gains / (losses) on disposal of business	60	3
Restructuring and rationalisation costs	(65)	(47)
Impairment loss and other	(158)	(89)
Other income / (expense)	**(163)**	**(133)**

As at 31 March 2019, capital gains on disposal of assets mainly reflect the impact of :

- the change of consolidation method from equity to full consolidation of EKZ for €33 million (see Note 1.2);
- the gain on TMH dilution for €25 million (see Note 13.2).

As of 31 March 2019, restructuring and rationalization costs are mainly related to the adaptation of the means of production in certain countries, notably in UK, Germany and Brazil.

As of March 2019, Impairment loss and other represent mainly:

- €(15) million of amortisation of intangible assets and integration costs related to business combinations, such as GE signalling, SSL and Nomad;
- €(74) million of transaction costs related to Siemens combination project (see Note 1.1);
- €(69) million of net costs related to some legal proceedings (see Note 33) and other risks, arisen outside of the ordinary course of business.

NOTE 7. FINANCIAL INCOME (EXPENSE)

Financial income and expense include:

- Interest income representing the remuneration of the cash position;
- Interest expense related to the financial debt (financial debt consists of bonds, other borrowings and lease-financing liabilities);
- Other expenses paid to financial institutions for financing operations;

- Cost of commercial and financial foreign exchange hedging (forward points);
- The financial component of the employee defined benefits expense (net interest income (expenses) and administration costs).
- The significant financing component under IFRS15

	Year ended	
(in € million)	31 March 2019	31 March 2018 (*)
Interest income	3	7
Interest expense on borrowings	(55)	(64)
NET FINANCIAL INCOME/(EXPENSES) ON DEBT	**(52)**	**(57)**
Net cost of foreign exchange hedging	(25)	(27)
Net financial expense from employee defined benefit plans	(10)	(13)
Financial component on contracts	6	4
Other financial income/(expense)	(7)	(6)
NET FINANCIAL INCOME/(EXPENSES)	**(88)**	**(99)**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

Net financial income/(expenses) on debt represent the cost of borrowings net of income from cash and cash equivalents. As at 31 March 2019, interest income totals €3 million, representing the remuneration of the Group's cash positions over the period, while interest expenses total €(55) million which correspond to cost of the external gross financial debt of the Group.

The net cost of foreign exchange hedging of €(25) million includes primarily the amortised cost of carry (forward points) of foreign exchange hedging implemented to hedge the exposures in foreign currency arising from commercial contracts and from hedging of intercompany financial positions.

The net financial expense from employee defined benefit plans of €(10) million represents the interest costs on obligations net of interest income from fund assets calculated using the same discount rate.

The financial component of €6 million is the recognition of financial revenue under IFRS15 for a specific project.

Other net financial income/expenses of €(7) million include mainly bank fees and commitment fees paid on bonds and guarantees facilities, syndicated loans and revolving facilities.

NOTE 8. TAXATION

The Group computes taxes in accordance with prevailing tax legislation in the countries where income is taxable.

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at the balance sheet date in the countries where the company's subsidiaries and associates operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation and establishes provisions where appropriate on the basis of amounts expected to be paid to the tax authorities.

Temporary differences arising between the carrying amount and the tax base of assets and liabilities, unused tax losses and unused tax credits are identified for each taxable entity (or each tax group when applicable). Corresponding deferred taxes are calculated at the enacted or substantively enacted tax rates that are expected to apply in the period when the asset is realised or the liability settled.

Deferred tax assets are recognised for all deductible temporary differences, unused tax losses and unused tax credits to the extent that it is probable that taxable profits will be available in the future against which the deductible differences, unused tax losses and unused tax credits can be utilised. The carrying amount of deferred tax assets is reviewed at each balance sheet date.

Deferred tax liabilities are recognised for all taxable temporary differences, with the exception of certain taxable temporary differences between the Group's share in the net assets in subsidiaries, joint arrangements and associates and their tax bases. The most common situation when such exception applies relates to undistributed profits of subsidiaries where distribution to the shareholders would trigger a tax liability: when the Group has determined that profits retained by the subsidiary will not be distributed in the foreseeable future, no deferred tax liability is recognised. Nevertheless, the exception is no more applicable to investments/subsidiaries being disposed since it becomes probable that the temporary difference will reverse in the foreseeable future with the sale of the subsidiaries. Therefore, in this specific case, deferred tax liabilities are recognised.

Deferred tax assets and liabilities are offset when both of the following conditions are met:

- the Group has a legally enforceable right to set off current tax assets against current tax liabilities, and
- the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority.

Deferred tax is charged or credited to net income, except when it relates to items charged or credited directly to other comprehensive income, in which case the deferred tax is classified in other comprehensive income.

8.1 Analysis of income tax charge

The following table summarises the components of income tax charge:

	Year ended	
(in € million)	**31 March 2019**	**31 March 2018 (*)**
Current income tax charge	(60)	(125)
Deferred income tax charge	(10)	66
INCOME TAX CHARGE	**(70)**	**(59)**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

The following table provides reconciliation from the income tax charge valued at the French statutory rate to the actual income tax charge, free of the temporary additional contributions:

	Year ended	
(in € million)	**31 March 2019**	**31 March 2018 (*)**
Pre-tax income	**320**	**165**
Statutory income tax rate of the parent company	34.43%	34.43%
Expected tax charge	**(110)**	**(57)**
Impact of:		
- Difference between normal tax rate applicable in France and normal tax rate in force in jurisdictions outside France	21	21
- Changes in unrecognised deferred tax assets	22	32
- Changes in tax rates	1	(6)
- Additional tax expenses (withholding tax, CVAE in France and IRAP in Italy)	(31)	(41)
- Permanent differences and other	27	(8)
INCOME TAX CHARGE	**(70)**	**(59)**
Effective tax rate	**22%**	**36%**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

8.2 Deferred tax assets and liabilities

	Year ended	
(in € million)	**2019**	**2018 (*)**
Deferred tax assets	299	305
Deferred tax liabilities	(21)	(22)
DEFERRED TAX ASSETS, NET	**278**	**283**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

The following table summarises the significant components of the Group's net deferred tax assets:

(in € million)	At 31 March 2018 (*)	Change in P&L	Change in equity	Translation adjustments and other changes	At 31 March 2019
Differences between carrying amount and tax basis of tangible and intangible assets	(2)	51	-	(10)	39
Accruals for employee benefit costs not yet deductible	16	2	5	-	23
Provisions and other accruals not yet deductible	95	(19)	-	(1)	75
Differences in recognition of margin on "construction contracts"	38	(39)	-	4	3
Tax loss carry forwards	145	(3)	-	2	144
Other	(9)	(2)	2	3	(6)
NET DEFERRED TAXES ASSET/(LIABILITY)	**283**	**(10)**	**7**	**(2)**	**278**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

(in € million)	31 March 2017 (*)	Change in P&L	Change in equity	Translation adjustments and other changes	At 31 March 2018 (*)
Differences between carrying amount and tax basis of tangible and intangible assets	(46)	47	-	(3)	(2)
Accruals for employee benefit costs not yet deductible	44	(17)	(8)	(3)	16
Provisions and other accruals not yet deductible	91	6	-	(2)	95
Differences in recognition of margin on "construction contracts"	15	6	-	17	38
Tax loss carry forwards	132	28	-	(15)	145
Other	(3)	(4)	-	(2)	(9)
NET DEFERRED TAXES ASSET/(LIABILITY)	**233**	**66**	**(8)**	**(8)**	**283**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

The assessment of the ability to recover net deferred tax assets is based on an extrapolation of the latest three-year business plan and a strategy of five years maximum recovery of tax losses in each country, and leads to the recognition of a net deferred tax for €278 million at 31 March 2019, thanks to strong perspectives.

Unrecognised deferred tax assets amounts to €1,151 million at 31 March 2019 (€1,218 million at 31 March 2018). Most of these unrecognised deferred taxes are originated from tax losses carried forward (€750 million at 31 March 2019 and €647 million at 31 March 2018), out of which €598 million are not subject to expiry at 31 March 2019 (€511 million at 31 March 2018).

NOTE 9. FINANCIAL STATEMENTS OF DISCONTINUED OPERATIONS

A discontinued operation is a component of an entity that either has been disposed of, or is classified as held for sale, and:

- represents a separate major line of business or geographical area of operations;
- is part of a single co-ordinated plan to dispose of a separate major line of business or geographical area of operations; or
- is a subsidiary acquired exclusively with a view to resale.

The results and cash flows of discontinued operations are presented on a separate line in the consolidated income statement and statement of cash flows for each period. The Group decides whether a discontinued operation represents a major line of business or geographical area of operations based on both qualitative criteria (technology, market, products, geographic region) and quantitative criteria (revenue, earnings, cash flows, assets). If the assets held by a discontinued operation are classified as held for sale they are measured at the lower of their carrying amount and fair value less costs to sell.

In compliance with IFRS 5, the Group applies the following specific measurements which impact the consolidated financial statements:

- Discontinued operations (including non-current assets, current assets and the related liabilities classified as held for sale), as a whole, are measured at the lower of their carrying amount and fair value less costs to sell;
- Consequently, goodwill, tangible and intangible assets are no longer reviewed for impairment;
- The exception of IAS 12 consisting in not recognising mechanical deferred taxes resulting from the difference between tax and consolidated values of the investments/subsidiaries being disposed is no more applicable since it becomes probable that the temporary difference will reverse in the foreseeable future with the sale of the subsidiaries. Thus, deferred tax liabilities are recognised with an income statement impact presented within the "Net profit from discontinued operations";
- Amortisation on non-current assets classified as "assets held for sale" ceases at the date of IFRS 5 application;
- Costs specifically incurred in the context of the deal are presented in the P&L within the "Net profit from discontinued operations";
- All intercompany balance-sheet and income statement positions are eliminated.

As at 31 March 2018, the Group decided to exercise its put options on Alliances. Then, the Alliances Renewable and Grid and the related options have been reclassified as Assets Held For Sale for an amount of €2.382 billion. As a consequence, following agreements signed between both parties, and particularly the one signed in May 2018, General Electric exercised, over the period 2018/19, its call option on the Nuclear Alliance.

On 2 October 2018, the Group has completed the transfer of all its interests in the three Energy Alliances (Renewables, Grid and Nuclear) to General Electric and received a total cash payment of €2.594 billion.

At 31 March 2019, Assets Held For Sale (and related liabilities) comprise delayed transferred assets for a net amount of €1 million: only one Chinese entity remains accounted for as Asset Held For Sale.

The line "Net profit from discontinued operations", recognized in the Consolidated Income Statement, includes the reassessment of liabilities related to the disposal of activities. Over the fiscal year ended 31 March 2019, Alstom recognized a profit for €248 million.

Alstom's Consolidated Statement of Cash Flows takes into account the cash flows of staggered and delayed transferred assets, until their effective transfer to General Electric, and costs directly related to the sale of Energy activities. Cash flows arising from discontinued operations for the fiscal year amount to €(16) million.

In the context of the General Electric transaction, the release of some conditional and unconditional parent company guarantees formerly issued, mainly by Alstom Holdings SA, to cover obligations of the former Energy affiliates amounts to €5.8 billion. The Group benefits from a general indemnification from General Electric in these matters.

NOTE 10. EARNINGS PER SHARE

Basic earnings per share are computed by dividing the period net profit (loss) before the financial cost (net of tax) of bonds reimbursable with shares, by the weighted average number of outstanding shares during the period increased by the weighted average number of shares to be issued on reimbursement of bonds reimbursable with shares ("ORA").

Diluted earnings per share are computed by dividing the period net profit (loss) before the financial cost (net of tax) of bonds redeemable into shares, by the weighted average number of outstanding shares during the period adjusted in order to take into consideration all dilutive instruments (ORA, stock options, free shares).

10.1 Earnings

	Year ended	
(in € million)	31 March 2019	31 March 2018 (*)
Net Profit attributable to equity holders of the parent :		
- From continuing operations	433	313
- From discontinued operations	248	52
EARNINGS ATTRIBUTABLE TO EQUITY HOLDERS OF THE PARENT	**681**	**365**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

10.2 Number of shares

	Year ended	
number of shares	31 March 2019	31 March 2018
Weighted average number of ordinary shares used to calculate basic earnings per share	**222,916,803**	**221,097,018**
Effect of dilutive instruments other than bonds reimbursable with shares:		
- Stock options and performance shares (LTI plan) (*)	2,069,903	1,900,901
WEIGHTED AVERAGE NUMBER OF ORDINARY SHARES USED TO CALCULATE DILUTED EARNINGS PER SHARES	**224,986,706**	**222,997,919**

(*) At 31 March 2018, the number of stock options and performance shares has been restated, without any significant impact on diluted earnings per share.

10.3 Earnings per share

	Year ended	
(in €)	31 March 2019	31 March 2018 (*)
Basic earnings per share	3.05	1.65
Diluted earnings per share	3.03	1.64
Basic earnings per share from continuing operations	1.94	1.42
Diluted earnings per share from continuing operations	1.93	1.41
Basic earnings per share from discontinued operations	1.11	0.23
Diluted earnings per share from discontinued operations	1.10	0.23

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

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E. NON-CURRENT ASSETS

NOTE 11. GOODWILL AND INTANGIBLE ASSETS

Goodwill and intangible assets with indefinite useful lives are reviewed for impairment at least annually and whenever events or circumstances indicate that they might be impaired. Such events or circumstances are related to significant, unfavourable changes that are of a lasting nature and affect either the economic environment or the assumptions or the targets adopted as of the acquisition date. An impairment loss is recognised when the recoverable value of the assets tested becomes durably lower than their carrying value.

In the Group, goodwill cannot be allocated on a non-arbitrary basis to individual cash-generating units, but only to groups of cash-generating units. As a result, the lowest level within the entity at which the goodwill is monitored for internal management purposes comprises a number of cash-generating units to which the goodwill relates, but to which it cannot be allocated.

Due to the organization and the increasing number of integrated services leading to complete and global turnkey solutions, financial information issued is presented through various axes of analysis (regions, sites, contracts, functions, products). Free Cash Flow, basis of the impairment tests of goodwill is only relevant at Group level.

Therefore, goodwill acquired in case of business combinations is only monitored and ultimately tested at group level.

11.1 Goodwill

(in € million)	At 31 March 2018	Acquisitions and adjustments on preliminary goodwill	Disposals	Translation adjustments and other changes	At 31 March 2019
GOODWILL	**1,422**	**107**	**-**	**45**	**1,574**
Of which:					
Gross value	1,422	107	-	45	1,574
Impairment	-	-	-	-	-

Movements between 31 March 2018 and 31 March 2019 mainly arose from the purchase price allocation of:

- EKZ for an amount of €97 million (see note 1), as at 31 March 2019, the goodwill remains provisional;
- 21net for an amount of €10 million, as at 31 March 2019, the goodwill is final.

Goodwill impairment test

As of 31 March 2019, Alstom tested the value of goodwill applying valuation methods consistent with previous years. Alstom ensured that the recoverable amount exceeded its carrying value (including goodwill).

Presentation of key assumptions used for the determination of recoverable amounts

The value in use is determined as the discounted value of future cash flows by using cash flow projections for the next three years consistent with the Group's internal business plan, the extrapolation of the two following years and the most recent forecasts prepared by the Group.

The value in use is mainly driven by the terminal value which is particularly sensitive to changes in the assumptions on the discount rate after tax, the long-term growth rate and the terminal value Adjusted EBIT margin (corresponding to the ratio aEBIT over Sales).

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The indicator "aEBIT" corresponds to Earning Before Interests and Tax adjusted with the following elements:

- net restructuring expenses (including rationalization costs);
- tangibles and intangibles impairment;
- capital gains or loss/revaluation on investments disposals or controls changes of an entity;
- and any other non-recurring items, such as some costs incurred to realize business combinations and amortisation of an asset exclusively valued in the context of business combination as well as litigation costs that have arisen outside the ordinary course of business.

The main assumptions used to assess the recoverable amounts of goodwill are as follows:

Net carrying amount of goodwill at 31 March 2019 (in € million)	1,574
Value elected as representative of the recoverable value	value in use
Number of years over which cash flow estimates are available	3 years
Extrapolation period of cash flow estimates	2 years
Long-term growth rate at 31 March 2019	**1.5%**
Long-term growth rate at 31 March 2018	1.5%
After tax discount rate at 31 March 2019 (*)	**8.5%**
After tax discount rate at 31 March 2018 (*)	8.5%

(*) The application of pre-tax discount rates to pre-tax cash flows leads to the same valuation of Cash Generating Units.

Discount rate is based on weighted average cost of capital (WACC) which is calculated for the Group based on a risk-free rate and a market risk premium. The current market assessment of the risks specific to Group activity is reflected by taking into account specific peer group information on industry beta, leverage and cost of debt. The parameters for calculating the discount rate are based on external sources of information.

Sensitivity of the values in use to key assumptions can be presented as follows:

(in € million)		
aEBIT Margin	-25bp	+25bp
	(167)	167
After tax discount rate	-25bp	+25bp
	272	(253)
Long-term growth rate	-10 bp	+10 bp
	(82)	85

As of 31 March 2019, the recoverable amount exceeded its carrying value and the sensitivity of the values in use to key assumptions supports the Group's opinion that goodwill is not impaired.

11.2 Intangible assets

Intangible assets include acquired intangible assets (such as technology and licensing agreements) and internally generated intangible assets (mainly development costs).

Acquired intangible assets

Acquired intangible assets are initially measured at cost and amortised on a straight-line basis over their estimated useful lives. Useful lives can extend to twenty years due to the long-term nature of the underlying contracts and activities. The amortisation expense of assets acquired through ordinary transactions is recorded in cost of sales, research and development expenditure, selling or administrative expenses, based on the function of the underlying assets. The amortisation expense of assets exclusively acquired in the context of a business combination (technology, backlog product and project, customer relationship) is recognised as other expenses.

Internally generated intangible assets

Development costs are capitalised if and only if the project they relate to meet the following criteria:

- The project is clearly defined and its related costs are separately identified and reliably measured,

* The technical feasibility of the project is demonstrated,
* The intention exists to complete the project and to use or sell it,
* Adequate technical and financial resources are available to complete the project,
* It is probable that the future economic benefits attributable to the project will flow to the Group.

Capitalised development costs are costs incurred directly attributable to the project (materials, services, fees…), including an appropriate portion of relevant overheads.

Capitalised development costs are amortised on a straight-line basis over the estimated useful life of the asset. The amortisation charge is reported in research and development expenses.

(in € million)	At 31 March 2018 (*)	Additions / disposals / amortisation / impairment	Other changes including CTA & scope	At 31 March 2019
Development costs	1,201	68	14	1,283
Other intangible assets	384	25	48	457
Gross value	**1,585**	**93**	**62**	**1,740**
Development costs	(936)	(63)	(1)	(1,000)
Other intangible assets	(233)	(26)	(11)	(270)
Amortisation and impairment	**(1,169)**	**(89)**	**(12)**	**(1,270)**
Development costs	265	5	13	283
Other intangible assets	151	(1)	37	187
NET VALUE	**416**	**4**	**50**	**470**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

(in € million)	At 31 March 2017 (*)	Additions / disposals / amortisation / impairment	Other changes including CTA & scope	At 31 March 2018 (*)
Development costs	1,173	90	(62)	1,201
Other intangible assets	378	10	(4)	384
Gross value	**1,551**	**100**	**(66)**	**1,585**
Development costs	(941)	(55)	60	(936)
Other intangible assets	(212)	(23)	2	(233)
Amortisation and impairment	**(1,153)**	**(78)**	**62**	**(1,169)**
Development costs	232	35	(2)	265
Other intangible assets	166	(13)	(2)	151
NET VALUE	**398**	**22**	**(4)**	**416**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

NOTE 12. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment are stated at cost less accumulated depreciation and any accumulated impairment loss. When an item of property, plant and equipment is made up of components with different useful lives, the total cost is allocated between the various components. Components are then separately depreciated.

Depreciation is computed using the straight-line method over the estimated useful lives of each component. The useful lives most commonly used are the following:

	Estimated useful life in years
Buildings	7-40
Machinery and equipment	3-25
Tools, furniture, fixtures and others	1-10

Useful lives are reviewed on a regular basis and changes in estimates, when relevant, are accounted for on a prospective basis. The depreciation expense is recorded in cost of sales, selling expenses or administrative expenses, based on the function of the underlying assets.

Borrowing costs that are attributable to an asset whose construction period exceeds one year are capitalised as part of the costs of the asset until the asset is substantially ready for use or sale.

Property, plant and equipment acquired through finance lease arrangements or long-term rental arrangements that transfer substantially all the risks and rewards incidental to ownership are capitalised. They are recognised at their fair value at the inception of the lease, or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the balance sheet as a financing obligation. Lease payments are apportioned between finance charges and repayment of the lease obligation so as to achieve a constant rate of interest on the remaining balance of the liability.

Assets held under finance leases are depreciated over their expected useful lives on the same basis as owned assets or the term of the relevant lease, when shorter.

Leases that do not transfer substantially all risks and rewards incidental to ownership are classified as operating leases. Rentals payable are charged to profit or loss on a straight-line basis over the term of the relevant lease. Benefits received and receivable as an incentive to enter into an operating lease are recognised on a straight-line basis over the lease term.

(in € million)	At 31 March 2018 (*)	Additions / amortisation / impairment	Disposals	Other changes of which translation adjustments and scope	At 31 March 2019
Land	90	-	-	2	92
Buildings	866	19	(9)	74	950
Machinery and equipment	808	39	(12)	17	852
Constructions in progress	98	122	-	(71)	149
Tools, furniture, fixtures and other	213	13	(14)	5	217
Gross value	**2,075**	**193**	**(35)**	**27**	**2,260**
Land	(9)	-	-	-	(9)
Buildings	(457)	(41)	9	(5)	(494)
Machinery and equipment	(583)	(46)	10	(16)	(635)
Constructions in progress	(13)	-	-	10	(3)
Tools, furniture, fixtures and other	(159)	(13)	13	(7)	(166)
Amortisation and impairment	**(1,221)**	**(100)**	**32**	**(18)**	**(1,307)**
Land	81	-	-	2	83
Buildings	409	(22)	-	69	456
Machinery and equipment	225	(7)	(2)	1	217
Constructions in progress	85	122	-	(61)	146
Tools, furniture, fixtures and other	54	-	(1)	(2)	51
NET VALUE	**854**	**93**	**(3)**	**9**	**953**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

The Group continues to adapt and modernize its organization around the world, notably with the construction or renovation of manufacturing sites in India, in the USA and in South Africa.

This mainly contributes to the commitments of fixed assets amounting to €101 million at 31 March 2019 (€68 million at 31 March 2018).

(in € million)	At 31 March 2017 (*)	Additions / amortisation / impairment	Disposals	Other changes of which translation adjustments and scope	At 31 March 2018 (*)
Land	88	-	-	2	90
Buildings	751	37	(10)	88	866
Machinery and equipment	786	33	(21)	10	808
Constructions in progress	117	101	-	(120)	98
Tools, furniture, fixtures and other	243	12	(15)	(27)	213
Gross value	**1,985**	**183**	**(46)**	**(47)**	**2,075**
Land	(9)	-	-	-	(9)
Buildings	(433)	(34)	9	1	(457)
Machinery and equipment	(573)	(33)	19	4	(583)
Constructions in progress	(14)	-	-	1	(13)
Tools, furniture, fixtures and other	(174)	(15)	14	16	(159)
Amortisation and impairment	**(1,203)**	**(82)**	**42**	**22**	**(1,221)**
Land	79	-	-	2	81
Buildings	318	3	(1)	89	409
Machinery and equipment	213	-	(2)	14	225
Constructions in progress	103	101	-	(119)	85
Tools, furniture, fixtures and other	69	(3)	(1)	(11)	54
NET VALUE	**782**	**101**	**(4)**	**(25)**	**854**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

The net value of tangible assets held under finance leases and included in the above data is as follows:

(in € million)	At 31 March 2019	At 31 March 2018
Buildings	12	13
Machinery and equipment	-	2
Tools, furniture, fixtures and other	1	1
NET VALUE OF TANGIBLE ASSETS HELD UNDER FINANCE LEASES	**13**	**16**

NOTE 13. INVESTMENTS IN JOINT VENTURES AND ASSOCIATES

Financial information

	Share in equity		Share of net income	
(in € million)	At 31 March 2019	At 31 March 2018	Year ended 31 March 2019	Year ended 31 March 2018
Energy Alliances	-	113	106	165
TMH Limited	538	260	66	23
Other Associates	114	100	34	31
Associates	**652**	**473**	**206**	**219**
SpeedInnov JV	59	60	(1)	-
Other Joint ventures	-	-	(10)	(3)
Joint ventures	**59**	**60**	**(11)**	**(3)**
TOTAL	**711**	**533**	**195**	**216**

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At 31 March 2019, the main variations are as follows:

- Energy Alliances (see Note 9 & Note 13.1): on 2nd October 2018, Alstom interests in the three Energy Alliances (Renewables, Grid and Nuclear) have been transferred to General Electric.
- TMH Limited (see Note 1.2 & Note 13.2): TMH Limited is the new holding of The Breakers Investment B.V and Locotech Services.

Movements during the period

(in € million)	At 31 March 2019	At 31 March 2018
Opening balance	**533**	**2 755**
Share in net income of equity-accounted investments	195	216
Dividends	(52)	(18)
Acquisitions (*)	117	-
Transfer to assets held for sale	-	(2 382)
Disposals (**)	(219)	-
Translation adjustments and other (***)	137	(38)
CLOSING BALANCE	**711**	**533**

(*) related to the acquisition of TMH additional shares (see note 13.2)

(**) related to Alliance Nuclear disposal (see note 13.1)

(***) mainly related to remeasurement of Locotech and TMH dilution profit (see note 13.2)

13.1 The three Energy Alliances

In the framework of the acquisition of Energy activities by General Electric, in November 2015, three alliances have been created, consisting of respectively:

- combination of Alstom Grid and General Electric Digital Energy businesses ("Grid Alliance");
- Alstom's hydro, offshore wind and tidal businesses ("Renewable Alliance");
- Global Nuclear & French Steam production assets for servicing of the "Arabelle" steam turbine equipment for nuclear power plants worldwide and servicing for applications in France ("Nuclear Alliance").

The investments in Energy alliances included liquidity rights through put options on its shares to General Electric with a minimum guaranteed exit price.

As at 31 March 2018, because of the Group decision to exercise its put options, the Alliances Renewable and Grid and the related options have been reclassified as Assets Held For Sale for an amount of €2,382 million. As a consequence, following agreements signed between both parties, and particularly the one signed in May 2018, General Electric exercised, over the period 2018/19, its call option on the Alliance Nuclear.

On 2nd October 2018, Alstom has completed the transfer of all its interests in the three Energy Alliances (Renewables, Grid and Nuclear) to General Electric and received a total cash payment of €2,594 million.

The capital gain arising from the disposal price evaluation as well as the amortization of the time value recognized over the holding period of the shares amount to €106 million, including the recycling of the put options fair value, recognized in Cash Flow Hedge Reserve as at 31 March 2018 for €7 million.

13.2 TMH Limited (new holding of the Breakers Investments B.V and Locotech Services)

Since 29 December 2015, Alstom owned 33% of The Breakers Investments B.V., the 100% holding company of Transmashholding ("TMH"), the leading Russian railway equipment manufacturer that operates in Russia and in the other countries of the Commonwealth of Independent States (CIS).

In June 2018, TMH and Locotech Services agreed to combine under a new holding TMH Limited. Following the transaction, the contribution of Alstom has been diluted. In the meantime, additional shares of TMH Limited have been bought by the Group from the other shareholders to increase its ownership up to 20% for €117 million (including capitalised acquisition costs for €2 million). From now on, in addition to the three seats on TMH's Board of Directors, Alstom also holds one seat on the TMH Limited Board of Directors and two seats on Locotech Services'. Therefore, the Group retains a significant influence.

The allocation of the price and the determination of the goodwill will be finalized within twelve months from the date of acquisition.

The net dilutive impact of the combined operation booked in the profit and loss over the period amounts to €25 million, including the recycling of the currency translation reserve for €(61) million (see Note 6).

Before the combined operation, the fair value of Locotech Services investment, directly held by TMH, has been remeasured through OCI for an amount of €53 million.

Other variations are mainly due to the result for the period for €66 million, to the dividend for €(31) million (of which €(6) million paid in March 2019) and the currency translation effect for €(4) million.

For practical reason, to be able to get timely and accurate information, data as of 31 December are retained and booked within Alstom 31 March accounts. The length of the reporting periods and the difference between the ends of the reporting periods remain the same from period to period to allow comparability and consistency.

The summarized financial information (at 100%) presented below are the figures disclosed in the financial statements of TMH Limited at 31 December 2018 and are established in accordance with IFRS. These financial statements, established in Rubles, were converted to euros based on the rates used by the Group at 31 March 2019.

Balance sheet and reconciliation on carrying value

	TMH Limited	TMH
(in € million)	**At 31 December 2018**	**At 31 December 2017**
Non-current assets	3,911	818
Current assets	1,908	1,107
TOTAL ASSETS	**5,819**	**1,925**
Equity-attributable to the owners of the parent company	3,049	772
Equity-attributable to non-controlling interests	222	125
Non current liabilities	858	238
Current liabilities	1,690	790
TOTAL EQUITY AND LIABILITIES	**5,819**	**1,925**
Equity interest held by the Group	20%	33%
NET ASSET	**610**	**257**
Goodwill	44	73
Impairment of share in net asset of equity investments	(36)	(62)
Paid dividends	(6)	-
Other (*)	(74)	(8)
SHARE IN THE CARRYING VALUE OF THE GROUP'S INTERESTS	**538**	**260**

(*) Corresponds to the restatements to TMH historical value before the combined operation, as at 31 March 2019.

Income statement

(in € million)	TMH Limited (*) Six months 1 July 2018 to 31 December 2018	TMH Six months 1 January 2018 to 30 June 2018	TMH Twelve months 1 January 2017 to 31 December 2017
Sales	2,294	1,452	2,300
Net income from continuing operations	82	172	40
Share of non-controlling interests	(10)	(25)	8
Net income attributable to the owners of the parent company	**72**	**147**	**48**
Equity interest held by the Group	20%	33%	33%
Share in the net income	**14**	**49**	**16**
Total share in the net income	**63**		
Other items (**)	3		7
GROUP'S SHARE IN THE NET INCOME	**66**		**23**

(*) From 1 July 2018, TMH limited includes both TMH business and Locotech business.
(**) Corresponds to the restatements to TMH historical value before the combined operation, as at 31 March 2019.

13.3 Other associates

The Group's investment in other associates comprises investment in Casco, held by the Group at 49%, for €108 million (of which €36 million of net profit) as well as other associates which are not significant on an individual basis. On aggregate, the net carrying value of Alstom's Investment represents €114 million as of 31 March 2019 (€100 million as of 31 March 2018).

EKZ

As at 22 December 2017, Alstom signed an agreement with the Kazakh national railway company (KTZ) to acquire their 25% stake in the EKZ Joint Venture (JV) for €21 million. As at 25 February 2019, all the suspensive conditions have been reached and Alstom owns 75% of the share with a full control over the Kazakh locomotive company. Accordingly, the consolidation method has been changed from equity to full consolidation. The gain related to the equity disposal amounts to €33 million (see Note 6).

NOTE 14. NON-CONSOLIDATED INVESTMENTS

Entities over which the Group has no significant influence or when the value is not material are not consolidated. The Group has expressed intention and ability to hold these Investments on a long term perspective and therefore these investments are considered as non-trading investments. The Group has elected for the portfolio of non-consolidated investments to record the change in fair value on these investments through Other Comprehensive Income with no subsequent recycling in income statement. They are initially measured at their fair value, plus directly attributable transaction costs and subsequently re-measured at fair value.

The fair value of listed securities is the market value at the closing date. A valuation model is used in case of unlisted securities. Changes in fair value are then directly recognised in other comprehensive income with no subsequent recycling in income statement. When the fair value cannot be determined reliably, investments in non-consolidated companies are measured at cost.

Besides, the Group has expressed intention and ability to hold all debt securities to maturity to collect the corresponding contractual cash flows. They are in that purpose measured at amortised cost using the effective interest rate method, less any impairment loss recognised to reflect amounts expected not to be recoverable. An impairment loss is recognised in profit or loss when there is objective evidence that the asset should be impaired and is measured as the difference between the investment's carrying value and the present value of the estimated future cash flows discounted at the effective interest rate computed at initial recognition. Impairment losses may be reversed through profit and loss in subsequent periods.

Finally, marketable securities are assets held for trading which cannot be considered as cash and cash equivalents. They are designated as financial assets at fair value through profit or loss. Changes in fair value are reported as financial income or expense.

Movements during the period

(in € million)	At 31 March 2019	At 31 March 2018
Opening balance	**58**	**55**
Change in fair value	2	-
Acquisitions / disposals	2	3
Translation adjustments and other	2	-
Closing balance	**64**	**58**

The Group's equity investment in other investments is not significant on an individual basis and notably comprises investments in companies that hold PPPs (public-private partnerships) agreements or have entered into concession agreements, typically for an ownership lower than 20%.

NOTE 15. OTHER NON-CURRENT ASSETS

Loans are initially measured at their fair value, plus directly attributable transaction costs and are subsequently measured at amortised cost using the effective interest rate method. Deposits are reported as other non-current assets when their initial maturity is more than three months and as cash and cash equivalents in case of demand deposits or when the initial maturity is less than three months.

If there is any indication that those assets may be impaired, they are reviewed for impairment. Any difference between the carrying value and the impaired value (net realisable value) is recorded as a financial expense. The impairment loss can be reversed if the value is recovered in the future. In that case, the reversal of the impairment loss is reported as a financial income.

(in € million)	At 31 March 2019	At 31 March 2018
Financial non-current assets associated to financial debt (*)	201	213
Long-term loans, deposits and other	41	64
Other non-current assets	**242**	**277**

(*) These non-current assets relate to a long-term rental of trains and associated equipment to a London metro operator (see Notes 27 and 34).

Movements over the period ended 31 March 2019 mainly arise from the decrease of €(16) million of obligations, €(21) million related to the change of consolidation method of EKZ (see Note 1.2) and from foreign exchange translation impacts of €5 million.

F. WORKING CAPITAL

NOTE 16. WORKING CAPITAL ANALYSIS

(in € million)	At 31 March 2019	At 31 March 2018 (*)	Variation
Inventories	1,533	1,440	93
Contract assets	1,448	1,212	236
Trade receivables	1,661	1,772	(111)
Other current operating assets / (liabilities)	(422)	(425)	3
Contract liabilities	(3,001)	(3,157)	156
Provisions	(1,193)	(1,356)	163
Trade payables	(1,751)	(1,346)	(405)
WORKING CAPITAL	**(1,725)**	**(1,860)**	**135**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

(in € million)	For the year ended 31 March 2019
Working capital at the beginning of the period (*)	**(1,860)**
Changes in working capital resulting from operating activities (**)	290
Changes in working capital resulting from investing activities	1
Translation adjustments and other changes	(156)
Total changes in working capital	**135**
Working capital at the end of the period	**(1,725)**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

(**) Including €248 million related to discontinued activities.

NOTE 17. INVENTORIES

Raw materials and supplies, work in progress and finished products are stated at the lower of cost, using the weighted average cost method, or net realisable value.

Inventory cost includes direct material and, where applicable, direct labour costs and those overheads that have been incurred in bringing the inventories to their existing location and condition.

Work in progress refers to costs incurred on product contracts or short term service contracts whose execution will be finalised during a next period. It refers also to costs incurred on «construction contracts» not yet allocated to projects at end of the closing period but transferred to project costs in subsequent periods when the asset becomes sufficiently customized and cannot be readily directed for another use.

Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses.

(in € million)	At 31 March 2019	At 31 March 2018 (*)
Raw materials and supplies	881	818
Work in progress	711	646
Finished products	150	138
Inventories, gross	**1,742**	**1,602**
Raw materials and supplies	(128)	(103)
Work in progress	(72)	(49)
Finished products	(9)	(10)
Write-down	**(209)**	**(162)**
Inventories, net	**1,533**	**1,440**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

ALSTOM

NOTE 18. NET CONTRACT ASSETS/LIABILITIES

Aggregates called “contract assets” and “contract liabilities” are disclosed for «construction contracts» and long term service agreements in progress and are determined on a contract-by-contract basis. The aggregate “contract assets” corresponds to the unbilled part of revenues recognized to date net of the advance payments received from customers. Unbilled part of revenue corresponds to revenue recognized to date in excess of progress billings. On the contrary, when progress billings are in excess of revenue recognized to date, the net amount is accounted for as deferred income and aggregated with the related advance payments received from customers under the caption “contract liabilities”.

Some costs incurred in fulfilling a contract that are not falling under the scope of the standards dealing with intangible and tangible assets as well as inventories, should be accounted for under a new caption called “costs to fulfil a contract” when eligible to capitalization.

IFRS 9 acknowledges the recognition of the credit risk related to financial assets and especially trade receivables, based on the expected loss approach. The recognition model retained for contract assets is the general model that allows to estimate the risk within one year, as long as there is no sign of significant degradation of customer credit risk.

(in € million)	At 31 March 2019	At 31 March 2018 (*)	Variation
Cost to fulfill a contract	23	30	(7)
Contract assets	1,424	1,182	242
Total contract assets	**1,448**	**1,212**	**236**
Contract liabilities	(3,001)	(3,157)	156
Net contract Assets/(Liabilities)	**(1,553)**	**(1,945)**	**392**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

Net contract Assets/(Liabilities) include down payments for €2,263 million at 31 March 2019 and €2,196 million at 31 March 2018.

NOTE 19. TRADE RECEIVABLES

A receivable is an entity’s right to consideration that is unconditional. A right to consideration is unconditional if only the passage of time is required before payment of that consideration is due. Receivables are initially recognised at fair value, which in most cases approximates the nominal value. If there is any subsequent indication that those assets may be impaired, they are reviewed for impairment. Any difference between the carrying value and the impaired value (net realisable value) is recorded within Earnings Before Interests and Taxes. The impairment loss can be reversed if the value is recovered in the future. In that case, the reversal of the impairment loss is also reported within Earnings Before Interests and Taxes.

IFRS 9 acknowledges the recognition of the credit risk related to financial assets and especially trade receivables, based on the expected loss approach. The recognition model retained for trade receivables is the Simplified Approach “Lifetime Expected Credit Losses”, as long as there is no sign of significant degradation of customer credit risk.

Indeed, due to the type of business operated by the Group, past due receivables are frequently representative of outstanding amounts confirmed by customers but whose payment is subject to clearance of items raised during inspection of works. Such receivables do remain fully recoverable; costs to be incurred for the clearance of pending items are included in the determination of the margin at completion of the related contracts.

The Group derecognizes a financial asset when the contractual rights to the cash flows from the asset expire or when it transfers the contractual rights in a transaction under which substantially all the risks and rewards of the financial assets are transferred.

(in € million)	Total	No past due on the closing date	Past due on the closing date: Less than 60 days	Between 60 and 180 days	More than 180 days
At 31 March 2019	**1,661**	**1,260**	**159**	**54**	**188**
o/w gross	1,700	1,287	160	54	199
o/w impairment	(39)	(27)	(1)	-	(11)
At 31 March 2018 (*)	**1,772**	**1,321**	**142**	**48**	**261**
o/w gross	1,834	1,354	161	49	270
o/w impairment	(62)	(33)	(19)	(1)	(9)

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

NOTE 20. OTHER CURRENT OPERATING ASSETS

(in € million)	At 31 March 2019	At 31 March 2018
Down payments made to suppliers	86	154
Corporate income tax	84	59
Other taxes	258	242
Prepaid expenses	55	80
Other receivables	218	286
Derivatives relating to operating activities	159	298
Remeasurement of hedged firm commitments in foreign currency	146	209
Other current operating assets	**1,006**	**1,328**

Over the period ended 31 March 2019, the Group entered into an agreement of assignment of receivables that leads to the derecognition of tax receivables for an amount of €81 million in accordance with IFRS 9 criteria. The total disposed amount outstanding at 31 March 2019 is €142 million.

NOTE 21. OTHER CURRENT OPERATING LIABILITIES

(in € million)	At 31 March 2019	At 31 March 2018 (*)
Staff and associated liabilities	520	483
Corporate income tax	17	48
Other taxes	70	89
Deferred income	6	4
Other payables	515	613
Derivatives relating to operating activities	202	253
Remeasurement of hedged firm commitments in foreign currency	98	263
Other current operating liabilities	**1,428**	**1,753**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

NOTE 22. PROVISIONS

As long as a «construction contracts» or a long-term service agreement is in progress, obligations attributable to such a contract are taken into account in the assessment of the margin to be recognised.

Upon completion of the contract, such obligations are recognised as distinct liabilities when they satisfy the following criteria:

- the Group has a present legal or constructive obligation as a result of a past event;
- it is probable that an outflow of economic resources will be required to settle the obligation; and
- such outflow can be reliably estimated.

These liabilities are presented as provisions when they are of uncertain timing or amount. When this uncertainty is dispelled, they are presented as trade payables or other current liabilities.

One exception is, in accordance with IAS37 Provisions, Contingent Liabilities and Contingent Assets, the provisions on onerous contracts that are reported in current provisions, as soon as identified. The unavoidable costs to fulfil a contract considered in assessing whether a contract is onerous are all the costs that directly relate to that contract.

Obligations resulting from transactions other than «construction contracts» and long-term service agreements are directly recognised as provisions as soon as the above-mentioned criteria are met. Where the effect of the time value of money is material, provisions are measured at their present value.

Restructuring provisions are made when plans to reduce or close facilities, or to reduce the workforce have been finalised and approved by the Group management and have been announced before the closing date, resulting in an obligation of the Group to third parties. Restructuring costs include employees' severance and termination benefits and estimated facility closing costs. In addition to such provisions, restructuring costs may include asset write-off relating to the restructured activities

(in € million)	At 31 March 2018 (*)	Additions	Releases	Applications	Translation adjustments and other	At 31 March 2019
Warranties	201	110	(35)	(52)	3	227
Risks on contracts	625	230	(140)	(113)	18	620
Current provisions	**826**	**340**	**(175)**	**(165)**	**21**	**847**
Tax risks & litigations	148	64	(46)	(3)	2	165
Restructuring	27	45	(7)	(23)	1	43
Other non-current provisions	355	41	(254)	(4)	-	138
Non-current provisions	**530**	**150**	**(307)**	**(30)**	**3**	**346**
Total Provisions	**1,356**	**490**	**(482)**	**(195)**	**24**	**1,193**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

(in € million)	At 31 March 2017 (*)	Additions	Releases	Applications	Translation adjustments and other	At 31 March 2018 (*)
Warranties	209	57	(21)	(45)	1	201
Risks on contracts	623	97	(62)	(39)	6	625
Current provisions	**832**	**154**	**(83)**	**(84)**	**7**	**826**
Tax risks & litigations	216	27	(92)	(7)	4	148
Restructuring	25	38	(5)	(23)	(8)	27
Other non-current provisions	374	6	(3)	(5)	(17)	355
Non-current provisions	**615**	**71**	**(100)**	**(35)**	**(21)**	**530**
Total Provisions	**1,447**	**225**	**(183)**	**(119)**	**(14)**	**1,356**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

Provisions for warranties relate to estimated costs to be incurred over the residual contractual warranty period on completed contracts.

Provisions for risks on contracts relate to provisions on contract losses and to commercial disputes and operating risks.

In relation to tax risks, the Group tax filings are subject to audit by tax authorities in most jurisdictions in which the Group operates. These audits may result in assessment of additional taxes that are subsequently resolved with the authorities or potentially through the courts. The Group believes that it has strong arguments against the questions being raised, that it will pursue all legal remedies to avoid an unfavourable outcome and that it has adequately provided for any risk that could result from those proceedings where it is probable that it will pay some amounts.

Restructuring provisions mainly derive from the adaptation of the means of production in certain countries, as the UK, Germany and Brazil.

Other non-current provisions mainly relate to guarantees delivered or risks in connection with disposals, employee litigations, commercial disputes and environmental obligations.

The management identifies and analyses on a regular basis current litigations and other risks, using its best estimate to assess, when necessary, provisions. These estimates take into account information available and different possible outcomes. Main disputes are described in note 33.

G. EQUITY AND DIVIDENDS

NOTE 23. EQUITY

When managing capital, objectives of the Group are to safeguard its ability to continue as a going concern so that it can provide returns to shareholders, bring benefits to its other partners and optimise the structure of the capital in order to reduce its cost.

To achieve this, the Group may choose to:

- adjust the amount of dividends paid to the shareholders;
- reimburse a portion of capital to the shareholders;
- issue new shares; or,
- sell assets in order to scale back its debt.

23.1 Movements in share capital

At 31 March 2019, the share capital of Alstom amounted to €1,565,006,191 consisting of 223,572,313 ordinary shares with a par value of €7 each. For the year ended 31 March 2019, the weighted average number of outstanding ordinary shares amounted to 222,916,803, after the dilutive effect of bonds reimbursable in shares “Obligations Remboursables en Actions”) and to 224,986,706 after the effect of all dilutive instruments.

During the year ended 31 March 2019:

- 1,040 bonds reimbursable in shares “Obligations Remboursables en Actions” were converted into 65 shares at a par value of €7. The 73,338 bonds reimbursable with shares outstanding at 31 March 2019 represent 4,606 shares to be issued;
- 638,610 of ordinary shares were issued under long term incentive plans;
- 723,167 of ordinary shares were issued under equity settled share based payments.

23.2 Currency translation adjustment in shareholders’ equity

At 31 March 2019, the currency translation reserve amounts to €(460) million.

The currency translation adjustment, presented within the consolidated statement of comprehensive income for €33 million, primarily reflects the effect of variations of the US Dollar (€53 million), Brazilian Real (€(15) million) and South African Rand (€(9) million) against the Euro for the year ended 31 March 2019.

NOTE 24. DISTRIBUTION OF DIVIDENDS

The Shareholders’ Meeting of Alstom held on 17 July 2018 decided to distribute for the financial year ended 31 March 2018, a dividend in cash for €0.35 by share. Dividends have been fully paid on 24 July 2018 for a total amount of €78 million.

At 31 March 2019, €6 million of dividends granted to non-controlling interests have been paid (of which €2 million approved last year).

H. FINANCING AND FINANCIAL RISK MANAGEMENT

NOTE 25. OTHER CURRENT FINANCIAL ASSETS

As at 31 March 2019, other current financial assets comprise the positive market value of derivatives instruments hedging loans, deposits and Group cash pooling positions.

(in € million)	At 31 March 2019	At 31 March 2018
Derivatives related to financing activities and others	10	8
OTHER CURRENT FINANCIAL ASSETS	**10**	**8**

NOTE 26. CASH AND CASH EQUIVALENTS

Cash equivalents are held to meet short-term cash commitments. In order to be considered as cash equivalent, an investment must be convertible to a known amount of cash within the coming three months and subject to a negligible risk of change in value, thereby satisfying the requirements of IAS 7.

Cash and cash equivalents include all cash balances, certain term deposit accounts, negotiable debt instruments and monetary UCITS.

Bank overdrafts are shown within borrowings in current liabilities on the balance sheet.

(in € million)	At 31 March 2019	At 31 March 2018
Cash	595	409
Cash equivalents	2,837	822
CASH AND CASH EQUIVALENT	**3,432**	**1,231**

In addition to bank open deposits classified as cash for €595 million (€409 million at 31 March 2018), the Group invests in cash equivalents:

- Euro money market funds in an amount of €2,415 million (€465 million at 31 March 2018), qualified as "monetary" or "monetary short term" under the French AMF classification,
- Bank term deposits that can be terminated at any time with less than three months notification period in an amount of €422 million (€357 million at 31 March 2018).

As of March 2019, the large amount of cash & cash equivalent arises essentially from the cash payment of €2,594 million received on 2nd October 2018 upon the transfer to General Electric of all Alstom interests in the three Energy Alliances (Renewables, Grid and Nuclear) (see Note 13.1).

NOTE 27. FINANCIAL DEBT

Bonds and interest-bearing bank loans are initially recognised at fair value, less any transaction costs directly attributable to the issuance of the liability. These financial liabilities are subsequently measured at amortised cost, using the effective interest rate method.

(in € million)	At 31 March 2018	Cash movements Net cash variation	Non-cash movements Change in scope	Translation adjustments and other	At 31 March 2019
Bonds	1,248	(371)	-	1	878
Other borrowing facilities	163	14	13	6	196
Put options and earn-out on acquired entities	37	(20)	-	(17)	-
Derivatives relating to financing activities	13	-	-	8	21
Accrued interests (*)	16	(62)	-	53	7
Borrowings	**1,477**	**(439)**	**13**	**51**	**1,102**
Obligations under finance leases	17	(1)	-	(1)	15
Other obligations under long-term rental (**)	213	(16)	-	4	201
Obligations under finance leases	**230**	**(17)**	**-**	**3**	**216**
Total financial debt	**1,707**	**(456)**	**13**	**54**	**1,318**

(*) Paid interests are disclosed in the net cash provided by operating activities part in the cash flow statement. Net interests paid and received amount to €(62) million.

(**) The other obligations under long-term rental represent liabilities related to lease obligations on trains and associated equipment (see Note 15).

The financial debt's variation over the period is mainly due to bonds reimbursement amounting to €371 million.

The following table summarizes the significant components of the Group's bonds:

	Initial Nominal value (in € million)	Maturity date (dd/mm/yy)	Nominal interest rate	Effective interest rate	Accounting value at 31 March 2019	Market value at 31 March 2019
Alstom July 2019	500	08/07/2019	3.00%	3.18%	282	284
Alstom March 2020	750	18/03/2020	4.50%	4.58%	596	622
Total and weighted average rate			**4.02%**	**4.13%**	**878**	**906**

Other borrowings consist in banking facilities drawn by affiliates.

The value of the external financial debt split by currency is as follows:

(in € million)	At 31 March 2019	At 31 March 2018
Euro	920	1,300
British Pound	201	213
Indian Rupee	115	77
Algerian Dinar	39	39
US Dollar	5	47
Other currencies	38	31
FINANCIAL DEBT IN NOMINAL VALUE	**1,318**	**1,707**

The external debt in GBP for €201 million essentially originates from a long-term lease scheme of trains, involving London Underground. The equivalent debt denominated in GBP is counter-balanced by long-term receivables having the same maturity and also denominated in GBP that are recognised as non-current assets (see Notes 15, 27 and 34).

ALSTOM

NOTE 28. FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT

28.1 Financial instruments reported in the financial statements

The Group's financial liabilities encompass borrowings, trade and other payables.

The Group's financial assets include loans, trade and other receivables, other current assets and cash and cash equivalents.

The Group is exposed to volatility risk in currency and interest rate, to credit risk and liquidity risk.

The main valuation methods applied are as follows:

- borrowings, when unhedged, are stated at amortised cost, determined by the effective interest rate method;
- the fair value of the financial debt is estimated based on either quoted market prices for traded instruments or current rates offered to the Group for debt of the same maturity;
- the fair value of cash, cash equivalents, trade receivables and trade payables is considered as being equivalent to carrying value, due to their short maturities, or their market value in the case of money market funds;
- the fair value of FX derivative instruments is calculated primarily on the basis of foreign exchange spot and forward rates at "mid-market" at closing date or alternatively on the basis of relevant yield curves per currency.

IFRS 13 application for "Fair Value Measurement", which requires counterparty risk to be taken into account in measuring derivative instruments, does not have a material impact on the Group's financial statements.

Year ended 31 March 2019

Balance sheet positions at 31 March 2019

			Carrying amount of financial instruments by categories (*)					Fair value of items classified as financial instruments			
At 31 March 2019 (in € million)	Balance sheet carrying amount	Carrying amount not defined as financial instruments	FV P/L	FV OCI	LRL at amortised cost	DER	Total	Listed prices	Internal model based on observable factors	Internal model not based on observable factors	Total
Non consolidated investments	64	-	-	64	-	-	64	-	20	44	64
Other non-current assets	242	-	-	-	242	-	242	-	41	201	242
Trade receivables	1,661	-	-	-	1,661	-	1,661	-	1,661	-	1,661
Other current operating assets	1,006	483	146	-	218	159	523	-	523	-	523
Other current financial assets	10	-	(2)	-	-	12	10	-	10	-	10
Cash and cash equivalents	3,432	-	2,415	-	1,017	-	3,432	2,415	1,017	-	3,432
ASSETS	**6,415**	**483**	**2,559**	**64**	**3,138**	**171**	**5,932**	**2,415**	**3,272**	**245**	**5,932**
Non-current borrowings	89	-	-	-	89	-	89	-	89	-	89
Non-current obligations under finance leases	197	-	-	-	197	-	197	-	197	-	197
Current borrowings	1,013	-	-	-	992	21	1,013	906	126	-	1,032
Current obligations under finance leases	19	-	-	-	19	-	19	-	19	-	19
Trade payables	1,751	-	-	-	1,751	-	1,751	-	1,751	-	1,751
Other current liabilities	1,428	613	98	-	515	202	815	-	815	-	815
LIABILITIES	**4,497**	**613**	**98**	**-**	**3,563**	**223**	**3,884**	**906**	**2,997**	**-**	**3,903**

(*) FV P/L stands for Fair Value through Profit and Loss; FV OCI stands for Fair Value through Other Comprehensive Income; LRL stands for Loans, Receivables and Liabilities and DER stands for Derivative instruments.

As mentioned in Note 13.1, there is a financial instrument (put) presented together with alliances in investments in associate's disclosure.

Financial income and expense arising from financial instruments for the year ended 31 March 2019

(in € million)	FV P/L	FV OCI	amortised cost & DER	Total
Interests	(1)	-	(51)	(52)
Interest income	*(1)*	-	*4*	*3*
Interest expense	-	-	*(55)*	*(55)*
Foreign currency and other	-	-	(32)	(32)
NET INCOME/EXPENSE FOR THE YEAR ENDED 31 MARCH 2019	**(1)**	**-**	**(83)**	**(84)**

Year ended 31 March 2018

Balance sheet positions at 31 March 2018

			Carrying amount of financial instruments by categories (*)					Fair value of items classified as financial instruments			
At 31 March 2018 (**) (in € million)	**Balance sheet carrying amount**	**Carrying amount not defined as financial instruments**	**FV P/L**	**FV OCI**	**LRL at amortised cost**	**DER**	**Total**	**Listed prices**	**Internal model based on observable factors**	**Internal model not based on observable factors**	**Total**
Non consolidated investments	58	-	-	36	22	-	58	-	22	36	58
Other non-current assets	277	-	-	-	277	-	277	-	64	213	277
Trade receivables	1,772	-	-	-	1,772	-	1,772	-	1,772	-	1,772
Other current operating assets	1,328	535	209	-	286	298	793	-	793	-	793
Other current financial assets	8	-	-	-	-	8	8	-	8	-	8
Cash and cash equivalents	1,231	-	465	-	766	-	1,231	465	766	-	1,231
ASSETS	**4,674**	**535**	**674**	**36**	**3,123**	**306**	**4,139**	**465**	**788**	**36**	**1,289**
Non-current borrowings	952	-	-	-	952	-	952	944	75	-	1,019
Non-current obligations under finance leases	212	-	-	-	212	-	212	-	212	-	212
Current borrowings	525	-	-	-	512	13	525	378	154	-	532
Current obligations under finance leases	18	-	-	-	18	-	18	-	18	-	18
Trade payables	1,346	-	-	-	1,346	-	1,346	-	1,346	-	1,346
Other current liabilities	1,753	624	263	-	613	253	1,129	-	1,129	-	1,129
LIABILITIES	**4,806**	**624**	**263**	**-**	**3,653**	**266**	**4,182**	**1,322**	**2,935**	**-**	**4,257**

(*) FV P/L stands for Fair Value through Profit and Loss; FV OCI stands for Fair Value Through Other Comprehensive Income; LRL stands for Loans, Receivables and Liabilities and DER stands for Derivative instruments.

(**) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

Financial income and expense arising from financial instruments for the year ended 31 March 2018

(in € million)	FV P/L	FV OCI	amortised cost & DER	Total
Interests	-	-	(57)	(57)
Interest income	-	-	*7*	*7*
Interest expense	-	-	(64)	(64)
Foreign currency and other	-	-	(33)	(33)
NET INCOME/EXPENSE FOR THE YEAR ENDED 31 MARCH 2018	**-**	**-**	**(90)**	**(90)**

28.2 Currency risk management

Foreign currency transactions are initially recognised by applying to the foreign currency amount the spot exchange rate between the functional currency of the reporting unit and the foreign currency at the date of the transaction. Currency units held assets to be received and liabilities to be paid resulting from those transactions are re-measured at closing exchange rates at the end of each reporting period. Realised exchange gains or losses at date of payment as well as unrealised gains or losses deriving from re-measurement are recorded in the income statement.

Since the Group is exposed to foreign currency volatility, the Group puts in place a significant volume of hedges to cover this exposure. These derivatives are recognised on the balance sheet at their fair value at the closing date. Provided that the relationships between the foreign currency exposure and the related derivatives are qualifying relationships, the Group uses the specific accounting treatments designated as hedge accounting. A relationship qualifies for hedge accounting if, at the inception of the hedge, it is formally designated and documented and if it proves to be highly effective throughout the financial reporting periods for which the hedge was designated.

Hedging relationships are mainly corresponding to fair value hedge in case of hedge of the exposure attributable to recognised assets, liabilities or firm commitments.

Derivative are recognised and re-measured at fair value

Fair value hedge

When fair value hedge accounting applies, changes in the fair value of derivatives and changes in the fair value of hedged items are both recognised in the income statement and offset each other up to the gain or loss on the effective portion on the hedging instrument.

Whatever the type of hedge, both the effective and ineffective portion on the hedging instrument are recognised in the income statement as well as realised and unrealised exchange gains and losses on hedged items and hedging instruments.

As the effective portion on the hedging instrument offsets the difference between the spot rate at inception of the hedge and the effective spot rate at the outcome of the hedge, sales and costs resulting from commercial contracts are recognised at the spot rate at inception of the hedge throughout the life of the related commercial contracts, provided that the corresponding hedging relationships keep on qualifying for hedge accounting. For a large Transport project located in South Africa, the hedged firm commitments resulting from the commercial contract are recognised on a forward rate basis. Provided that the corresponding hedging relationship qualifies for hedge accounting, the change in fair value of the hedged items recorded at the project forward rate at inception offsets the change in fair value of the derivatives.

The Group uses export insurance policies to hedge its currency exposure on certain contracts during the open bid period. When commercial contracts are awarded, insurance instruments are settled and forward contracts are put in place and recorded according to the fair value hedge accounting as described above.

Derivatives relating to financing activity

Whenever possible, Alstom Holdings acts as an in-house bank for its affiliates through cash-pooling and loans / deposits agreements. The intercompany positions so generated are hedged through foreign exchange swaps, the cost of which is included in net cost of foreign exchange (see Note 7).

At 31 March 2019, net derivatives positions amount to a net liability of €(9) million and comprise mainly forward sale contracts of British Pound, US Dollars and Polish Zloty, but also, forward purchase contracts of United Arab Emirates Dirham and Australian dollar.

(in € million)	Net derivatives positions		2020		2021		2022-2024		2025 and thereafter	
Currency 1 / Currency 2 (*)	Net notional	Fair value	Interests	Repayment	Interests	Repayment	Interests	Repayment	Interests	Repayment
EUR/GBP	(134)	(11)	-	23	-	(157)	-	-	-	-
EUR/USD	(210)	(4)	-	(210)	-	-	-	-	-	-
EUR/AED	207	4	-	207	-	-	-	-	-	-
EUR/PLN	(220)	(1)	-	(220)	-	-	-	-	-	-
EUR/AUD	130	1	-	130	-	-	-	-	-	-
Other		2								
Net derivatives related to financing activities		**(9)**								

(*) Positive amount: the currency 2 is bought forward against currency 1. Negative amount: the currency 2 is sold forward against currency 1

Derivatives hedging commercial activity

In the course of its operations, the Group is exposed to currency risk arising from tenders submitted in foreign currency, awarded contracts and any future cash out transactions denominated in foreign currency. The main currency triggering a significant exposure as of 31 March 2019 is the US dollar and Polish Zloty.

During the tender period, depending on the probability to obtain the project and on market conditions, the Group may hedge in some cases a portion of its tenders using options or export insurance policies. Once the contract is in force, forward exchange contracts are used to hedge the actual exposure during the life of the contract.

Forward currency contracts are denominated in the same currency than the hedged item. Generally, the tenor of hedging derivatives matches with the tenor of the hedged items. However, the Group may decide depending on market conditions to enter into derivatives in shorter tenors and to roll them subsequently. Finally, in some cases, the Group can waive to be hedged because of the cost of the hedge or absence of efficient market.

The portfolio of operating of foreign exchange forward contracts has a weighted maturity below 1 year and 6 months. However some forward contracts may mature beyond five years to reflect the long term nature of some of the hedged contracts. The Group hedges about forty different currencies with a multitude of crosses depending on which entity of the Group is exposed to the currency. Change in foreign exchange rate is compensated by the reevaluation through Income Statement at fair market value on derivatives.

At 31 March 2019, net derivatives positions amount to a net liability of €(43) million. They are summarized as follows:

(in € million)	Net derivatives positions		2020		2021		2022-2024		2025 and thereafter	
Currency 1 / Currency 2 (*)	Net notional	Fair value	Interests	Repayment	Interests	Repayment	Interests	Repayment	Interests	Repayment
EUR/USD	(767)	(28)	-	(653)	-	(102)	-	(16)	-	4
EUR/CAD	(362)	(21)	-	(120)	-	(74)	-	(168)	-	-
EUR/ZAR	(120)	(12)	-	(120)	-	-	-	-	-	-
EUR/INR	(40)	(30)	-	23	-	(99)	-	32	-	4
EUR/BRL	91	17	-	37	-	22	-	32	-	-
EUR/PLN	787	26	-	324	-	201	-	262	-	-
Other		5								
Net derivatives related to operating activities		**(43)**								

(*) Positive amount: the currency 2 is bought forward against currency 1. Negative amount: the currency 2 is sold forward against currency 1

Most of the hedging instruments are negotiated by Alstom Holdings and are mirrored by hedging agreements between Alstom Holdings and the exposed subsidiaries. Whenever local regulations prohibit this intercompany hedging, instruments are negotiated directly by affiliates with local banks under the supervision of central Treasury.

Overall derivatives positions

Derivative instruments hedging foreign currency risk are recognised at their fair value on the balance sheet as follows:

	At 31 March 2019		At 31 March 2018 (*)	
(in € million)	Assets	Liabilities	Assets	Liabilities
Derivatives qualifying for fair value hedge	171	223	306	266
Of which derivatives relating to financing activities	*12*	*21*	*8*	*13*
Of which derivatives relating to operating activities	*159*	*202*	*298*	*253*

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

Since derivatives have been set up, the change in foreign exchange spot rates, and to a lesser extend the relative change in interest rate curves relating to the hedged currencies, during the periods ended 31 March 2018 and 31 March 2019 explains the amount of fair value of derivative instruments (either positive or negative). For instruments that qualify for fair value hedge accounting, change in fair value arising from spot rates is mostly offset by the re-measurement of the underlying exposure (either on balance sheet or off-balance sheet).

The sensitivity of the Group's pre-tax income to a change in currencies arising from derivative instruments not qualifying for hedge accounting is not significant.

Alstom enters with its banking counterparties in bilateral standard derivatives agreements that generally do not provide a collateralization of derivatives market value.

These agreements generally require the offsetting of receivable and payable amounts in case of default of one of the contracting parties. These derivatives fall within the scope of disclosures under IFRS 7 on compensation and are presented in the tables below:

ALSTOM

At 31 March 2019 (in € million)	Gross amounts of recognized financial assets/liabilities	Gross amounts of recognized financial assets/liabilities set off in the	Net amount of financial assets/liabilities presented in the balance sheet	Related amount not set off in the balance sheet: Financial instruments	Related amount not set off in the balance sheet: Cash collateral received	Net amount
Derivatives liabilities	(223)	-	(223)	(142)	-	(81)
Derivatives assets	171	-	171	142	-	29

At 31 March 2018 (in € million)	Gross amounts of recognized financial assets/liabilities	Gross amounts of recognized financial assets/liabilities set off in the	Net amount of financial assets/liabilities presented in the balance sheet	Related amount not set off in the balance sheet: Financial instruments	Related amount not set off in the balance sheet: Cash collateral received	Net amount
Derivatives liabilities	306	-	306	(180)	-	126
Derivatives assets	(266)	-	(266)	180	-	(86)

28.3 Interest rate risk management

The Group may enter into hedges for the purpose of managing its exposure to movements in interest rates. Derivatives are recognised on the balance sheet at fair value at the closing date. Providing that the relationships between the interest rate exposure and the related derivatives are qualifying relationships, the Group uses the specific accounting treatments designated as hedge accounting. Fair value hedge accounting and cash flow hedge accounting are applied to fixed and floating rate borrowings, respectively.

In the case of fair value hedge relationships, the re-measurement of the fixed rate borrowing is offset in the income statement by the movement in the fair value of the derivative up to the effective portion of hedged risk. In the case of cash flow hedging relationships, the change in fair value of the derivative is recognised directly in other comprehensive income. Amounts previously recognised directly in other comprehensive income are reclassified to the income statement, when the hedged risk impacts the income statement.

As at 31 March 2019, the group keeps short dated floating rate financial assets on its balance sheet, while its debt is merely made of fixed rate bonds.

The Group has not implemented an active interest rate risk management policy. However under the supervision of the Executive Committee, it may enter into transactions in order to hedge its interest rate risk on a case-by-case basis according to market opportunities.

At 31 March 2019	Fixed rate	Floating rate	Total
Financial assets	201	3 473	3 674
Financial debt bearing interests	(1 122)	(196)	(1 318)
Total position before hedging	**(921)**	**3 277**	**2 356**
Hedging position	-	-	-
Total position after hedging	**(921)**	**3 277**	**2 356**

At 31 March 2018	Fixed rate	Floating rate	Total
Financial assets	213	1 294	1 507
Financial debt bearing interests	(1 567)	(140)	(1 707)
Total position before hedging	**(1 354)**	**1 154**	**(200)**
Hedging position	-	-	-
Total position after hedging	**(1 354)**	**1 154**	**(200)**

Sensitivity is analysed based on the group's net cash position at 31 March 2019, assuming that it remains constant over one year.

In absence of interest rate derivatives, the effects of increases or decreases in market rates are symmetrical: a rise of 0.1% would increase the net interest income by €3 million while a fall of 0.1% would decrease it by €3 million.

28.4 Credit risk management

Credit risk is the risk that counterparty will not meet its payment obligations under financial instrument or customer contract, leading to a loss. The Group is exposed to credit risk on its operating activities (primarily for trade receivables and for contracts asset) and on its financing activities, including deposits, foreign currency hedging instruments and other financial instruments with banks and financial institutions.

Risk related to customers

The financial assets that are falling under the scope of IFRS9 Customer credit risk are mainly concerning trade receivables (which are at short maturity) as well as contract assets under IFRS15 (that have potentially longer maturities). The recognition model of the Expected Credit Losses (ECL) retained on these exposures is respectively the Simplified Approach “Lifetime Expected Credit Losses” for trade receivables and the general model that allows to estimate the risk within one year for contract assets, as long as there is no sign of significant degradation of customer credit risk. The Group believes that the risk of a counterpart failing to perform as contracted, which could have a significant impact on the Group’s financial statements or results of operations, is limited because the Group seeks to ensure that customers generally have strong credit profiles or adequate dedicated financing to meet their project obligations, or can also be the subject of insurance policies taken out by the Group (see also Note 19). However, this mechanism of protection may become incomplete, uncertain or ineffective because of the duration of the Group’s contract in a changing environment, particularly in emerging countries, leading to impairment losses determined considering a risk of non-recovery assessed on a case-by case basis.

Risk related to other financial assets

In addition to the recovery of assets held for sale, the Group’s exposure to credit risk related to other financial assets, especially derivatives, arises from default of the counterpart, with a maximum exposure equal to the carrying amount of those instruments. The financial instruments are taken out with more than 30 different counterparties and the risk is therefore highly diluted, the largest exposure with one single counterparty (rated A2) being limited to €17 million.

28.5 Liquidity risk management

In addition to its available cash and cash equivalents, amounting to €3,432 million at 31 March 2019, the Group can access a €400 million revolving credit facility, maturing in June 2022, which is fully undrawn at March 2019.

This facility is subject to the ratio of total net debt to EBITDA:

- Total net debt is defined as the total financial debt except finance lease obligations covered by financial assets directly associated to such obligations less cash and cash equivalents,
- The EBITDA is defined as earnings before financing expense, financing income, income taxes, amortisation and impairment charges on tangible and intangible assets less capital gain on disposal of investments.

This ratio should not exceed 2.5.

The financial covenant calculation is detailed below:

(in € million)	For the year ended 31 March 2019	For the year ended 31 March 2018 (*)
EBITDA	542	435
Total net debt	(2,351)	232
Total Net debt leverage	**(4.3)**	**0.5**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

The GAAP measure EBIT reconciles with non-GAAP measure EBITDA indicator, as follows:

(in € million)	At 31 March 2019	At 31 March 2018 (*)
Earnings Before Interests and Taxes	**408**	**264**
Amortisation, Depreciation & Impairment	194	168
Capital G/L on Disposal of Investment	(60)	3
EBITDA	**542**	**435**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

Treasury Centralization

Credit risk from balances with banks and financial institutions is managed by Group treasury in accordance with the Group's policy.

The Group diversifies its cash investments in order to limit its counterparty risk. In addition to short term deposits with tier-one banks, the group invested in euro money market funds qualified as "monetary" or "monetary short term" under the AMF classification. Cash investments are reviewed on a regular basis in accordance with Group procedures and in strict compliance with the eligibility criteria set out in IAS 7 and the AMF's recommendations.

The Group's parent company has access to some cash held by wholly-owned subsidiaries through the payment of dividends or pursuant to intercompany loan arrangements. However local constraints can delay or restrict this access. Furthermore, while the Group's parent company has the power to control decisions of subsidiaries of which it is the majority owner, its subsidiaries are distinct legal entities and their payment of dividends and granting of loans, advances and other payments to the parent company may be subject to legal or contractual restrictions, be contingent upon their earnings or be subject to business or other constraints. These limitations include local financial assistance rules and corporate benefit laws.

The Group's policy is to centralise liquidity of subsidiaries at the parent company's level when possible. Cash available in subsidiaries located in countries with local constraints delaying or restricting the Group's access to this cash was €72 million at 31 March 2019 and €88 million at 31 March 2018.

Future Cash Flow

The Group's objective is to maintain a strong liquidity, commensurate with the changes in working capital triggered by its long term activity.

The following tables show the remaining maturities of all financial assets and liabilities held at 31 March 2019 and 31 March 2018.

Planning data for future new assets and liabilities are not reported. Amounts in foreign currency are translated at the closing rate. The variable interest payments are calculated using the last interest rates available at the closing date. Assets and liabilities that can be repaid at any time are always assigned to the earliest possible time period.

Financial instruments held at 31 March 2019

Cash flow arising from instruments included in net cash/(debt) at 31 March 2019

(in € million)	Carrying amount	2020 Interests	2020 Repayment	2021 Interests	2021 Repayment	2022 - 2024 Interests	2022 - 2024 Repayment	2025 and thereafter Interests	2025 and thereafter Repayment
Other non-current assets	201	14	18	13	19	29	66	13	98
Other current financial assets	10	-	10	-	-	-	-	-	-
Cash and cash equivalents	3 432	(1)	3 432	-	-	-	-	-	-
Assets	**3 643**	**13**	**3 460**	**13**	**19**	**29**	**66**	**13**	**98**
Non-current borrowings	(89)	(9)	-	(8)	(2)	(12)	(27)	(4)	(60)
Non-current obligations under finance leases	(197)	-	-	-	(21)	-	(46)	-	(130)
Current borrowings	(1 013)	(38)	(1 013)	-	-	-	-	-	-
Current obligations under finance leases	(19)	-	(19)	-	-	-	-	-	-
Liabilities	**(1 318)**	**(47)**	**(1 032)**	**(8)**	**(23)**	**(12)**	**(73)**	**(4)**	**(190)**
Net cash/(debt)	**2 325**	**(34)**	**2 428**	**5**	**(4)**	**17**	**(7)**	**9**	**(92)**

Cash flow arising from operating derivatives at 31 March 2019

(in € million)	Carrying amount	2020 Interests	2020 Repayment	2021 Interests	2021 Repayment	2022 - 2024 Interests	2022 - 2024 Repayment	2025 and thereafter Interests	2025 and thereafter Repayment
Other current operating assets	159	-	62	-	41	-	54	-	2
Assets	**159**	-	**62**	-	**41**	-	**54**	-	**2**
Other current operating liabilities	(202)	-	(90)	-	(56)	-	(51)	-	(5)
Liabilities	**(202)**	-	**(90)**	-	**(56)**	-	**(51)**	-	**(5)**
Derivatives	**(43)**	-	**(28)**	-	**(15)**	-	**3**	-	**(3)**

Cash flow arising from instruments included in other financial assets and liabilities at 31 March 2019

(in € million)	Carrying amount	2020 Interests	2020 Repayment	2021 Interests	2021 Repayment	2022 - 2024 Interests	2022 - 2024 Repayment	2025 and thereafter Interests	2025 and thereafter Repayment
Non consolidated investments	64	-	-	-	-	-	-	-	64
Other non-current assets	41	-	-	-	-	-	-	-	41
Trade receivables	1 661	-	1 661	-	-	-	-	-	-
Other current operating assets	364	-	364	-	-	-	-	-	-
Assets	**2 130**	-	**2 025**	-	-	-	-	-	**105**
Trade payables	(1 751)	-	(1 751)	-	-	-	-	-	-
Other current operating liabilities	(613)	-	(613)	-	-	-	-	-	-
Liabilities	**(2 364)**	-	**(2 364)**	-	-	-	-	-	-
Other financial assets and liabilities	**(234)**	-	**(339)**	-	-	-	-	-	**105**

Financial instruments held at 31 March 2018

Cash flow arising from instruments included in net cash/(debt) at 31 March 2018

(in € million)	Carrying amount	2019 Interests	2019 Repayment	2020 Interests	2020 Repayment	2021-2023 Interests	2021-2023 Repayment	2024 and thereafter Interests	2024 and thereafter Repayment
Other non-current assets	213	77	17	14	17	33	59	22	120
Other current financial assets	8	-	8	-	-	-	-	-	-
Cash and cash equivalents	1 231	(2)	1 231	-	-	-	-	-	-
Assets	**1 452**	**75**	**1 256**	**14**	**17**	**33**	**59**	**22**	**120**
Non-current borrowings	(952)	(36)	-	(64)	(915)	(28)	(36)	-	-
Non-current obligations under finance leases	(212)	-	-	-	(19)	-	(21)	-	(172)
Current borrowings	(525)	(30)	(525)	-	-	-	-	-	-
Current obligations under finance leases	(18)	-	(18)	-	-	-	-	-	-
Liabilities	**(1 707)**	**(66)**	**(543)**	**(64)**	**(934)**	**(28)**	**(57)**	**-**	**(172)**
Net cash/(debt)	**(255)**	**9**	**713**	**(50)**	**(917)**	**5**	**2**	**22**	**(52)**

Cash flow arising from operating derivatives at 31 March 2018

(in € million)	Carrying amount	2019 Interests	2019 Repayment	2020 Interests	2020 Repayment	2021 - 2023 Interests	2021 - 2023 Repayment	2024 and thereafter Interests	2024 and thereafter Repayment
Other current operating assets	298	-	166	-	63	-	66	-	3
Assets	**298**	-	**166**	-	**63**	-	**66**	-	**3**
Other current operating liabilities	(253)	-	(143)	-	(54)	-	(55)	-	(1)
Liabilities	**(253)**	-	**(143)**	-	**(54)**	-	**(55)**	-	**(1)**
Derivatives	**45**	-	**23**	-	**9**	-	**11**	-	**2**

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Cash flow arising from instruments included in other financial assets and liabilities at 31 March 2018

(in € million)	Carrying amount	2019		2020		2021 - 2023		2024 and thereafter	
		Interests	Repayment	Interests	Repayment	Interests	Repayment	Interests	Repayment
Non consolidated investments	58	-	-	-	17	-	-	-	41
Other non-current assets	64	-	-	-	-	-	-	-	64
Trade receivables	1,772	-	1,772	-	-	-	-	-	-
Other current operating assets	495	-	495	-	-	-	-	-	-
Assets	**2,389**	-	**2,267**	-	**17**	-	-	-	**105**
Trade payables	(1,346)	-	(1,346)	-	-	-	-	-	-
Other current operating liabilities	(878)	-	(878)	-	-	-	-	-	-
Liabilities	**(2,224)**	-	**(2,224)**	-	-	-	-	-	-
Other financial assets and liabilities (*)	**165**	-	**43**	-	**17**	-	-	-	**105**

(*) Previous year figures have been restated in accordance with the IFRS 9 and IFRS 15 standards (Note 2)

28.6 Commodity risk management

Most of commodities bought by the Group are quickly transformed and included into work-in-progress. As much as possible, the Group includes into customer contracts a customer price adjustment clause, so that the Group has a limited exposure to the variation of commodity prices.

Occasionally, the Group can hedge its exposure with commodity derivatives (copper, aluminum) of which the notional and the market values are not significant at 31 March 2019.

I. POST-EMPLOYMENT AND OTHER LONG-TERM DEFINED EMPLOYEE BENEFITS AND SHARE–BASED PAYMENTS

NOTE 29. POST-EMPLOYMENT AND OTHER LONG-TERM DEFINED EMPLOYEE BENEFITS

The Group provides its employees with various types of post-employment benefits, such as pensions, retirement bonuses and medical care, and other long-term benefits, such as jubilee awards and deferred compensation schemes. The type of benefits offered to individual employees is related to local legal requirements as well as practices of the specific subsidiaries.

The Group's health care plans are generally contributory with participants' contributions adjusted annually.

Post-employment defined benefit plans

For single employer defined benefit plans, the Group uses the Projected Unit Credit Method to determine the present value of its obligations and the related current and past service costs/profits. This method considers the actuarial assumptions' best estimates (for example, the expected turnover, the expected future salary increase and the expected mortality).

Most defined benefit pension liabilities are funded through pension funds legally distinct from the entities constituting the Group. Plan assets related to funded plans are invested mainly in equity and debt securities. Other supplemental pension plans sponsored by the Group for certain employees are directly paid by the employer as they become due. Post-employment medical benefit plans are predominantly unfunded.

The Group periodically reviews plan assets and obligations. The effects of any change in actuarial assumptions together with the differences between forecast and actual experience are assessed. The Group recognises in other comprehensive income the full amount of any actuarial gains and losses as well as the effect of any asset ceiling.

The estimated cost of providing defined benefits to employees is accrued during the years in which the employees render services. In the income statement, the service cost is included in Earnings Before Interests and Taxes. The past service cost/profit and specific events impacts (e.g. curtailments and settlements) are recognised in other expense/income. Net interest on the net defined benefit liability (asset) and administration costs are included in financial income (expenses).

Post-employment defined contribution plans

For defined contribution plans, the Group pays contributions to independently administered funds at a fixed percentage of employees' pay. These contributions are recorded as operating expenses.

Other long-term employee benefits

The accounting method used when recognising obligations arising from other long-term employee benefits is similar to the method used for post-employment defined benefits, except that actuarial gains/losses are immediately recognised in full in "Other income/expenses" in the income statement.

The defined benefit obligation amounting to €1 044 million as at 31 March 2019 (see Note 29.2) is analysed as follows:

- several pension plans for €837 million;
- other post-employment benefits for €164 million which include mainly end-of-service benefits in France and Italy; and
- other long-term defined benefits for €43 million which mainly correspond to jubilees in France and Germany.

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The reconciliation of funded status of the plans with assets and liabilities recognised in the balance sheet is as follows:

(in € million)	At 31 March 2019	At 31 March 2018
Defined benefit obligations	**(1,044)**	**(950)**
Fair value of plan assets	511	482
Unfunded status of the plans	**(533)**	**(468)**
Impact of asset ceiling	-	-
NET OF ACCRUED AND PREPAID BENEFIT COSTS AFTER ASSET CEILING	**(533)**	**(468)**
Of which:		
Accrued pension and other employee benefit costs	(533)	(468)

As detailed in this note, net provisions for post-employment benefits total €533 million, as at 31 March 2019, compared with €468 million, as at 31 March 2018. Movements over the period ended 31 March 2019 mainly arose from United Kingdom, Germany, Switzerland, the United States of America and France.

29.1 Description of the plans

Post-employment benefits are paid under defined contribution and defined benefit plans. The Group's only obligation under defined contribution plans is to pay fixed contributions into the funding vehicle. The payments are recognised when incurred in the income statement.

Defined benefit plans primarily relate to United Kingdom, Germany, and France. The specific characteristics (benefit formulas, funding policies and types of assets held) of the plans vary according to the regulations and laws in the country where the employees are located.

In the United Kingdom, there are three defined benefit pension plans covering different populations. Each of these are Sections of the large UK Railways Pension Scheme and provide a pension in the form of an indexed annuity. Two of these plans are historical and were closed to new members as of 1 July 2013 and the third was closed to new members on 1 April 2016. New hires are ordinarily offered the opportunity to participate in a defined contribution group pension plan ("GPP"), a group life insurance plan and an income replacement scheme.

In Germany, the plans provide coverage for pension, death and disability. In the past, the pension was accrued in the form of an annuity. The plans were deeply modified for future accruals in 2010 for the employees to remove most, particularly the higher risk, defined benefit pension plans. The plans continue to be accounted for as defined benefit plans under IAS 19R but with much lower risks for the company. With respect to employee contributions, these are remitted into defined contributions plans.

In France, defined benefit pension plans are mainly end-of-service benefits provided for under the terms of collective bargaining agreements and Group agreements.

In some countries, these commitments are covered in whole or in part by insurance contracts or pension funds. In this case, the commitments and assets are measured independently.

The fair value of plan assets is deducted from the Group's defined benefit obligation, as estimated using the projected unit credit method, in order to calculate the unfunded obligation to be covered by a provision, or the overfunded right to be recognized as an asset under specific requirements.

In the following tables, the "Other" zone represents mainly the United States of America, Sweden and Switzerland.

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29.2 Defined benefit obligations

(in € million)	At 31 March 2019	United Kingdom	Euro Zone	Other
Defined benefit obligations at beginning of year	**(950)**	**(426)**	**(431)**	**(93)**
Service cost	(33)	(9)	(14)	(10)
Plan participant contributions	(3)	(3)	-	-
Interest cost	(21)	(11)	(6)	(4)
Curtailments	(1)	(2)	1	-
Settlements	(1)	-	-	(1)
Actuarial gains (losses) - due to experience	(19)	(5)	(11)	(3)
Actuarial gains (losses) - due to changes in demographic assumptions	(2)	-	(2)	-
Actuarial gains (losses) - due to changes in financial assumptions	(43)	(21)	(19)	(3)
Benefits paid	46	15	26	5
Foreign currency translation and others	(17)	(9)	(1)	(7)
DEFINED BENEFIT OBLIGATIONS AT END OF YEAR	**(1,044)**	**(471)**	**(457)**	**(116)**
Of which:				
Funded schemes	*(816)*	*(471)*	*(270)*	*(75)*
Unfunded schemes	*(228)*	-	*(187)*	*(41)*

(in € million)	At 31 March 2018	United Kingdom	Euro Zone	Other
Defined benefit obligations at beginning of year	**(995)**	**(453)**	**(449)**	**(93)**
Service cost	(39)	(14)	(16)	(9)
Plan participant contributions	(3)	(3)	-	-
Interest cost	(21)	(11)	(7)	(3)
Curtailments	1	1	-	-
Actuarial gains (losses) - due to experience	(12)	(8)	(1)	(3)
Actuarial gains (losses) - due to changes in demographic assumptions	14	13	-	1
Actuarial gains (losses) - due to changes in financial assumptions	44	28	16	-
Benefits paid	42	12	25	5
Foreign currency translation and others	19	9	1	9
DEFINED BENEFIT OBLIGATIONS AT END OF YEAR	**(950)**	**(426)**	**(431)**	**(93)**
Of which:				
Funded schemes	*(733)*	*(426)*	*(249)*	*(58)*
Unfunded schemes	*(217)*	-	*(182)*	*(35)*

29.3 Plan assets

As indicated in Note 29.1, for defined benefit plans, plan assets have been progressively built up by contributions from the employer and the employees, primarily in the United Kingdom, Germany, Switzerland and the United States of America.

(in € million)	At 31 March 2019	United Kingdom	Euro Zone	Other
Fair value of plan assets at beginning of year	**482**	**363**	**72**	**47**
Interest income	11	9	1	1
Actuarial gains (losses) on assets due to experience	13	11	3	(1)
Company contributions	12	7	-	5
Plan participant contributions	3	3	-	-
Benefits paid from plan assets	(18)	(15)	-	(3)
Foreign currency translation and others	8	7	-	1
FAIR VALUE OF PLAN ASSETS AT END OF YEAR	**511**	**385**	**76**	**50**

(in € million)	At 31 March 2018	United Kingdom	Euro Zone	Other
Fair value of plan assets at beginning of year	**469**	**351**	**72**	**46**
Interest income	11	9	1	1
Actuarial gains (losses) on assets due to experience	16	13	(1)	4
Company contributions	10	5	-	5
Plan participant contributions	3	3	-	-
Benefits paid from plan assets	(16)	(12)	-	(4)
Foreign currency translation and others	(11)	(6)	-	(5)
FAIR VALUE OF PLAN ASSETS AT END OF YEAR	**482**	**363**	**72**	**47**

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29.4 Components of plan assets

(in € million)	At 31 March 2019	%	United Kingdom	Euro Zone	Other
Equities	309	60.5%	70%	29%	34%
Bonds	181	35.4%	30%	65%	33%
Insurance contracts	4	0.8%	-	3%	4%
Other	17	3.3%	-	3%	29%
Total	**511**	**100%**	**100%**	**100%**	**100%**

(in € million)	At 31 March 2018	%	United Kingdom	Euro Zone	Other
Equities	291	60.5%	71%	28%	29%
Bonds	170	35.3%	29%	66%	38%
Insurance contracts	4	0.9%	-	3%	4%
Other	17	3.3%	-	3%	29%
Total	**482**	**100%**	**100%**	**100%**	**100%**

An active market price exists for all plan assets except properties. Assets of each funded plan are managed by a dedicated investment committee in accordance with the scheme rules and local regulation. The Group has representatives on these committees and promotes simple and diversified investment strategies.

The aim is to limit investment risks to those necessary to fulfil the benefit commitment (asset and liability management). As a result, strategic allocation favours liquid assets and especially long bonds. As at 31 March 2019, plan assets do not include securities issued by the Group.

29.5 Assumptions (weighted average rates)

Actuarial valuations of the Group's benefit obligation have been made as at 31 March 2019 and 31 March 2018.

These valuations include:

- Assumptions on staff turnover, mortality and salary increases;
- Assumptions on retirement ages varying from 60 to 65 depending on the country and the applicable laws;
- Discount rates used to determine the actuarial present value of the projected benefit obligations.

Actuarial assumptions used vary by type of plan and by country.

(in %)	At 31 March 2019	United Kingdom	Euro Zone	Other
Discount rate	1.96	2.45	1.33	2.91
Rate of compensation increase	2.85	3.55	2.25	2.69

(in %)	At 31 March 2018	United Kingdom	Euro Zone	Other
Discount rate	2.30	2.80	1.68	2.86
Rate of compensation increase	3.15	3.60	2.75	2.41

As of 31 March 2019, the weighted average durations of the defined benefit obligations are the following:

(in years)	At 31 March 2019	United Kingdom	Euro Zone	Other
Weighted average duration	15	18	13	14

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Discount rate

In accordance with IAS 19R principles, discount rates are set each year by reference to the market yields on high quality corporate bonds denominated in the relevant currency. In countries where there is no deep market in such bonds, discount rates are set by reference to the yields on government bonds. The required information is sourced from the company's actuarial advisors and from market quotations and indices.

Rate of compensation increase

Compensation increase assumptions are determined at country level and reviewed centrally.

Assumptions related to the post-employment healthcare obligation

The healthcare trend rate is assumed to be 7.72% in the year ended 31 March 2019 and reduces thereafter to an ultimate rate of 4.49%.

Sensitivity analysis

A 25 bp increase or decrease in the main assumptions would have the following impacts on the defined benefit obligation:

(in € million)	At 31 March 2019
Impact of a 25bp increase or decrease in the discount rate	(38) / +40
Impact of a 25bp increase or decrease in the rate of compensation increase	+9 / (8)

29.6 Analysis of post-employment and other long-term defined benefit expense

As at 31 March 2019, the benefit expense for the whole Group is the following:

(in € million)	Year ended 31 March 2019	United Kingdom	Euro Zone	Other
Service cost	**(33)**	**(9)**	**(14)**	**(10)**
Defined contribution plans	(67)	(7)	(48)	(12)
Curtailments/settlements	(1)	(2)	1	-
EBIT impact	**(101)**	**(18)**	**(61)**	**(22)**
Financial income (expense)	**(10)**	**(2)**	**(5)**	**(3)**
Total benefit expense	**(111)**	**(20)**	**(66)**	**(25)**

(in € million)	Year ended 31 March 2018	United Kingdom	Euro Zone	Other
Service cost	**(39)**	**(14)**	**(16)**	**(9)**
Defined contribution plans	(62)	(5)	(47)	(10)
Curtailments/settlements	1	1	-	-
EBIT impact	**(100)**	**(18)**	**(63)**	**(19)**
Financial income (expense)	**(13)**	**(4)**	**(6)**	**(3)**
Total benefit expense	**(113)**	**(22)**	**(69)**	**(22)**

29.7 Cash flows

In accordance with local practice and regulations, the company pays contributions to the funded schemes it sponsors and benefits to the members of unfunded plans.

Total cash spent for defined benefit plans in the year ended 31 March 2019 amounted to €27 million and covers both regular contributions for accruing service and recovery contributions in case of funding shortfall.

For defined benefit plans, the expected cash outflows are the following:

- €26 million in the year ending 31 March 2020;
- €25 million in the year ending 31 March 2021;
- €25 million in the year ending 31 March 2022.

Total cash spent for defined contribution plans in the year ended 31 March 2019 amounted to €67 million.

For defined contribution plans, according to the company's best estimate, payments should remain stable over the next years, at constant scope and exchange rates.

NOTE 30. SHARE-BASED PAYMENTS

The Group issues equity-settled and cash-settled share-based payments to certain employees.

Equity-settled share-based payments

Equity-settled share-based payments are measured at fair value at the grant date (excluding the effect of non-market-based conditions) using the Black-Scholes model for plans issued from 2009 and the Monte Carlo model for plans issued from 2016. The cumulative recognised expense is based on the fair value at grant date and on the estimated number of shares that will eventually vest (including the effect of non-market-based vesting conditions). It is recorded in Earnings Before Interests and Taxes throughout the vesting period with a counterpart in equity.

At the end of each reporting period, the entity revises its estimates of the number of options that are expected to vest based on the non-market vesting conditions. It recognises the impact of the revision to original estimates, if any, in the income statement, with a corresponding adjustment to equity.

Cash-settled share-based payments

For cash-settled share-based payments, a liability equal to the portion of the goods or services rendered is recognised at the current fair value. The fair value is remeasured at each balance-sheet date and at the date of settlement, with any changes recognised in the income statement.

The Group may also provide employees with the ability to purchase the Group's ordinary shares at a discounted price compared to that of the current market value. In that case, the Group records an expense based on the discount given and its estimate of the shares expected to vest.

30.1 Stock options and performance shares

Key characteristics

	Plans issued by Shareholders Meeting on 22 June 2010							
	Plan n°13	Plan n°13	Plan n°14	Plan n°14	Plan n°15	Plan n°15	Plan n°16	Plan n°16
	Stock options	Performance shares	Stock options	Performance shares	Stock options	Performance shares	Stock options	Performance shares
Grant date	13/12/2010	13/12/2010	04/10/2011	04/10/2011	10/12/2012	10/12/2012	01/10/2013	01/10/2013
Exercise period	13/12/2013 12/12/2018	n/a	04/10/2014 03/10/2019	n/a	10/12/2015 09/12/2020	n/a	03/10/2016 30/09/2021	n/a
Number of beneficiaries	528	1,716	514	1,832	538	1,763	292	1,814
Adjusted number granted (1)	1,419,767	740,860	1,573,723	804,040	1,508,777	883,140	771,997	1,130,791
Adjusted number exercised since the origin	840,501	506,330	784,119	478,149	529,278	391,458	519,353	1,022,311
Adjusted number cancelled since the origin	579,266	234,530	638,291	325,891	806,630	491,682	72,625	108,480
Ajusted number outstanding at 31 March 2019	-	-	151,313	-	172,869	-	180,019	-
inc. to the present members of the Executive Committee	-	-	3,702	-	27,781	-	38,503	-
Adjusted exercise price (2) (in €)	28.83	n/a	22.96	n/a	24.10	n/a	23.44	n/a
Fair value at grant date (in €)	7.59	31.35	3.14	19.77	5.80	26.70	3.84	22.62

	Plans issued by Shareholders Meeting on 18 December 2015				Plan issued by Shareholders Meeting on 17 July 2018
	PSP 2016	We are Alstom	PSP 2017	PSP 2018	PSP 2019
	Performance shares	Free shares	Performance shares	Performance shares	Performance shares
Grant date	17/03/2016	23/09/2016	17/03/2017	13/03/2018	12/03/2019
Exercise period	n/a	n/a	n/a	n/a	n/a
Number of beneficiaries	737	27,480	755	732	820
Adjusted number granted (1)	957,975	824,400	1,022,400	1,016,025	1,080,150
Adjusted number exercised since the origin	1,050	638,640	-	-	-
Adjusted number cancelled since the origin	201,942	185,760	110,495	25,875	4,500
Ajusted number outstanding at 31 March 2019	754,983	-	911,905	990,150	1,075,650
inc. to the present members of the Executive Committee	130,500	-	183,000	205,125	205,500
Adjusted exercise price (2) (in €)	n/a	n/a	n/a	n/a	n/a
Fair value at grant date (in €)	17.17	23.39	21.74	25.59	28.92

(1) The number of options and performance shares and the exercise price of options have been adjusted as a result of transactions that have impacted the number of capital shares after grant dates.

(2) The exercise price corresponds to the average opening price of the shares during the twenty trading days preceding the day on which the options were granted by the Board (neither discount nor surcharge) and adjusted where necessary due to share buy back operation.

At 31 March 2019, stock options granted by plans 13, 14, 15 and 16 are fully vested. For plans 13, 14, 15 and 16, options expire five years after the end of the vesting period. For plan 13, the exercise period expired in December 2018.

The long term incentive plans set up since 2007 combine the allocation of stock options with the allocation of performance shares, except the latter since 2016 that allocate only performance shares.

The grant of these instruments is conditioned by the satisfaction of performance indicators.

LTI plan 15 granted on 10 December 2012

The total number of options exercisable and performance shares delivered was depending on the Group's operating margin and the free cash flow for the fiscal years ended 31 March 2013, 31 March 2014 and 31 March 2015.

Based on consolidated financial statements for the fiscal years ended 31 March 2013 and 31 March 2014, the performance conditions were achieved for 30% of the initial grant of the LTIP15 options and performance shares.

In the context of the sale of the Energy activities, the Board of Directors considered that the performance conditions set for fiscal year ended 31 March 2015, weighting 20% of the initial grant, were deemed fully satisfied subject to and upon the completion of the transaction. As a result, 50% of the options were exercisable under this plan and 50% of performance shares have been delivered. 50% of options and performance shares have been cancelled.

LTI plan 16 granted on 1 October 2013

In the context of Energy transaction, the Board of Directors has considered that the performance conditions set for fiscal years ended 31 March 2015 and 31 March 2016 were deemed fully satisfied subject to and upon the completion of the transaction.

As a consequence, all options will be exercisable under this plan and all performance shares have been delivered on 2 October 2017.

In addition, for both plans 15 & 16, the presence condition has been waived for the beneficiaries having left the Group as part of the Energy transaction on the condition they are employees of Alstom Group as at the date of the closing of the transaction. This triggered the stock option and performance plans expense acceleration recorded in Income statement of discontinued operations.

PSP 2016 granted on 17 March 2016

This plan has been approved by the board of directors of 17 March 2016. It allocates 957,975 performance shares to 737 beneficiaries.

The final allocation depends on two internal performance conditions based on Group adjusted EBIT margin and Free Cash Flow for fiscal years ended 31 March 2017, 31 March 2018, and 31 March 2019, and one external condition linked to the performance of the Company’s share. The final delivery will take place five days after the publication of the 31 March 2019 results. Based on the performance conditions of the years ended 31 March 2017 and 31 March 2018, 34.40% of the initial grant is achieved and 10.60% of the performance shares have been cancelled.

2016 free share plan

On 23 September 2016, the Board of Directors approved the grant of a worldwide free share Plan named “We are Alstom”. The 30-shares-award concerns all employees within Alstom on 30 June 2016, on the condition they are still employees of Alstom group at the end of a 2-years-vesting period, representing a maximum of 824,400 new shares of €7 of nominal value each to be issued in favor of a maximum of 27,480 beneficiaries.

It was also decided that in the countries where, for tax and/or legal purpose, the granting of free shares would be difficult or not possible, a cash equivalent bonus will be granted to employees.

On 25 September 2018, 638,610 free shares have been delivered to 21,287 employees in sixteen countries. In the other countries the cash equivalent bonus has been paid based on the value of the shares at the delivery date.

PSP 2017 granted on 17 March 2017

This plan has been agreed by the board of directors of 17 March 2017. It allocates 1,022,400 performance shares to 755 beneficiaries.

The final allocation depends on two internal performance conditions based on Group adjusted EBIT margin and Free Cash Flow for fiscal years ended 31 March 2018, 31 March 2019, and 31 March 2020, and one external condition linked to the performance of the Company’s share. The final delivery will take place five days after the communication of the 31 March 2020 results. Based on the performance conditions of the year ended 31 March 18, 17.13% of the initial grant is achieved and 2.87% of the performance shares have been cancelled.

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PSP 2018 granted on 13 March 2018

This plan has been agreed by the board of directors of 13 March 2018. It allocates 1,016,025 performance shares to 732 beneficiaries.

The final allocation depends on one internal performance condition based on Group adjusted EBIT margin for fiscal years ended 31 March 2021, and one external condition linked to the performance of the Company's share. The final delivery will take place five days after the publication of the 31 March 2021 results.

PSP 2019 granted on 12 March 2019

This plan has been agreed by the board of directors of 12 March 2019. It allocates 1,080,150 performance shares to 820 beneficiaries.

The final allocation depends on two internal performance condition based on Group adjusted EBIT margin and cash conversion rate for fiscal years ended 31 March 2022, and one external condition linked to the performance of the Company's share. The final delivery will take place at the latest twenty days after the publication of the 31 March 2022 results.

The number of Performance Shares will be determined as follows:

	Adjusted Ebit Margin 2021/2022		
Percentage of granted shares subject to this condition	40%		
% of granted shares to be delivered upon objectives realisation	≤ 7%	= 7,9%	≥ 8.5%
	0%	66.67%	100%
	Linear from 0% up to 100%		

	Measured Cash Conversion ratio / Budget Cash Conversion ratio for FY 2021/22					
Percentage of granted shares subject to this condition	20%					
% of granted shares to be delivered upon objectives realisation	Actual conversion ratio < Budget - 13.5 points (B-13.5)	(B-13.5) ≤ Actual Conversion ratio < (B-12)	(...)	(B-1.5) ≤ Actual Conversion ratio < Budget	Actual conversion ratio = Budget	Actual conversion ratio ≥ Budget +15 points (B+15)
	0%	6,67%		60%	66,67%	100%
	Acquisition by thresholds from 0% up to 66.67% and by linear interpolation from 66.67% up to 100%					

	TSR Alstom / TSR Index						
Percentage of granted shares subject to this condition	40%						
% of granted shares to be delivered upon objectives realisation	TSR Alstom < 96% TSR Index	96% ≤ TSR Alstom < 97% TSR Index	97% ≤ TSR Alstom < 98% TSR Index	98% ≤ TSR Alstom < 99% TSR Index	99% ≤ TSR Alstom < 100% TSR Index	TSR Alstom = TSR Index	TSR Alstom ≥ 120% TSR Index
	0%	13,33%	26,67%	40%	53,33%	66,67%	100%
	Acquisition by thresholds from 0% up to 66.67% and by linear interpolation from 66.67% up to 100%						

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Movements

	Number of options	Weighted average exercise price per share in €	Number of performance shares
Outstanding at 31 March 2017	**4,757,401**	**37.90**	**3,774,378**
Granted(*)	-	0.00	1,016,025
Exercised	(1,460,920)	25.08	(1,020,164)
Cancelled	(1,958,010)	55.94	(126,292)
Outstanding at 31 March 2018	**1,338,471**	**25.52**	**3,643,947**
Granted(**)	-	0.00	1,080,150
Exercised	(723,167)	26.46	(638,610)
Cancelled	(111,103)	28.83	(352,799)
OUTSTANDING AT 31 March 2019	**504,201**	**23.52**	**3,732,688**
of which exercisable	*504,201*		*N/A*

(*) includes 1,016,025 free shares granted through PSP 2018

(**) includes 1,080,150 free shares granted through PSP 2019

Valuation

	Plan n°13 Stock options	Plan n°13 Performance shares	Plan n°14 Stock options	Plan n°14 Performance shares	Plan n°15 Stock options	Plan n°15 Performance shares	Plan n°16 Stock options	Plan n°16 Performance shares
Grant date	13/12/2010	13/12/2010	04/10/2011	04/10/2011	10/12/2012	10/12/2012	01/10/2013	01/10/2013
Expected life (in years)	3.5	2.5 or 4.0	4.0	2.5 or 4.0	4.0	2.5 or 4.0	3.0	4.0
End of vesting period	12/12/2013	31/05/2013 or 12/12/2014	03/10/2014	31/05/2014 or 03/10/2015	09/12/2015	31/05/2015 or 09/12/2016	30/09/2016	30/09/2017
Adjusted exercise price (*) (in €)	28.83	n/a	22.96	n/a	24.10	n/a	23.44	n/a
Share price at grant date (in €)	35.40	35.40	23.82	23.82	29.77	29.77	26.33	26.33
Volatility	31%	n/a	31%	n/a	30%	n/a	28%	n/a
Risk free interest rate	1.8%	2.0%	1.5%	1.5%	0.5%	0.5%	0.9%	0.9%
Dividend yield	3.1%	3.1%	5.0%	5.0%	3.4%	3.4%	3.8%	3.8%

(*) The exercise price corresponds to the average opening price of the shares during the twenty trading days preceding the day of which the options were granted by the Board (no discount or surcharge) and adjusted, where necessary, due to share buyback operation.

	PSP 2016 Performance shares	We are Alstom Free shares	PSP 2017 Performance shares	PSP 2018 Performance shares	PSP 2019 Performance shares
Grant date	17/03/2016	23/09/2016	17/03/2017	13/03/2018	12/03/2019
Expected life (in years)	3.2	2.0	3.2	3.2	3.2
End of vesting period	17/05/2019	23/09/2018	17/05/2020	13/05/2021	12/05/2021
Adjusted exercise price (*) (in €)	n/a	n/a	n/a	n/a	n/a
Share price at grant date (in €)	21.84	24.00	26.56	34.19	37.75
Volatility	23%	n/a	22%	20%	19%
Risk free interest rate	(0.3)%	(0.6)%	(0.1)%	(0.2)%	(0.3)%
Dividend yield	3.8%	1.3%	1.5%	1.5%	1.5%

(*) The exercise price corresponds to the average opening price of the shares during the twenty trading days preceding the day of which the options were granted by the Board (no discount or surcharge) and adjusted, where necessary, due to share buyback operation.

The option valuation method follows a Black & Scholes model for plans, 13, 14, 15, 16, and the plan "We are Alstom" as well as Monte Carlo model for PSP 2016, PSP 2017, PSP 2018, and PSP 2019, with exercise of the options anticipated and spread over the exercise period on a straight-line basis.

The volatility factor applied is an average of CAC40 comparable companies' volatility at the grant date for plans 13 to 16, and Alstom's volatility for the plans since PSP 2016.

The Group booked a total expense of €22 million, of which €2 million cash settled, for the year ended 31 March 2019 (to be compared to €20 million for the year ended 31 March 2018).

The Board of Directors is committed, in the event of a major change in the Group's strategy or structure, or at the time of implementing new accounting standards to adapting these performance conditions to new issues highlighted for the coming years, both in their nature and in the levels of results to be achieved, while maintaining a high level of demand.

NOTE 31. EMPLOYEE BENEFIT EXPENSE AND HEADCOUNT

In the following figures, staff of joint-operations entities are integrated in fully, staff of joint-ventures and associates are not considered.

	Year ended	
(in € million)	31 March 2019	31 March 2018
Wages and salaries	2,078	1,867
Social charges	331	415
Post-employment and other long-term benefit expense (see Note 29)	111	113
Share-based payment expense (see Note 30)	22	20
TOTAL EMPLOYEE BENEFIT EXPENSE	**2,542**	**2,415**

	Year ended	
	31 March 2019	31 March 2018
Staff of consolidated companies at year end		
Managers, engineers and professionals	19,022	17,927
Other employees	17,248	16,539
HEADCOUNT	**36,270**	**34,466**

	Year ended	
	31 March 2019	31 March 2018
Average staff of consolidated companies over the period		
Managers, engineers and professionals	18,475	17,374
Other employees	16,894	16,612
HEADCOUNT	**35,369**	**33,986**

J. CONTINGENT LIABILITIES AND DISPUTES

Commitments arising from execution of operations controlled by the Group

In the ordinary course of business, the Group is committed to fulfil various types of obligations arising from customer contracts (among which full performance and warranty obligations). Obligations may also arise from leases and regulations in respect of tax, custom duties, environment, health and safety. These obligations may or may not be guaranteed by bonds issued by banks or insurance companies.

As the Group is in a position to control the execution of these obligations, a liability only arises if an obligating event (such as a dispute or a late completion) has occurred and makes it likely that an outflow of resources will occur.

When the liability is considered as only possible but not probable or, when probable, cannot be reliably measured, it is disclosed as a contingent liability.

When the liability is considered as probable and can be reliably measured, the impact on the financial statements is the following:

- if the additional liability is directly related to the execution of a customer contract in progress, the estimated gross margin at completion of the contract is reassessed; the cumulated margin recognised to date based on the percentage of completion and the accrual for future contract loss, if any, are adjusted accordingly,
- if the additional liability is not directly related to a contract in progress, a liability is immediately recognised on the balance sheet.

The contractual obligations of subcontractors towards the Group are of the same nature as those of the Group towards its customers. They may be secured by the same type of guarantees as those provided to the Group's customers.

No contingent asset is disclosed when the likelihood of the obligation of the third party remains remote or possible. A contingent asset is disclosed only when the obligation becomes probable. Any additional income resulting from a third party obligation is taken into account only when it becomes virtually certain.

Commitments arising from execution of operations not wholly within the control of the Group

Obligations towards third parties may arise from on-going legal proceedings, credit guarantees covering the financial obligations of third parties in cases where the Group is the vendor, and indemnification guarantees issued in connection with disposals of business entities.

In case of legal proceedings, a contingent liability is disclosed when the liability is considered as only possible but not probable, or, when probable, cannot be reliably measured. In case of commitments arising from guarantees issued, contingent liabilities are disclosed as soon as guarantees have been delivered and as long as they have not matured.

A provision is recorded if the obligation is considered as probable and can be reliably measured. Contingent assets arising from legal proceedings or guarantees delivered by third parties are only disclosed when they become probable.

NOTE 32. CONTINGENT LIABILITIES

Commercial obligations

Contractual obligations of the Group towards its customers may be guaranteed by bank bonds or insurance bonds. Bank and insurance bonds may guarantee liabilities already recorded on the balance sheet as well as contingent liabilities.

To issue these bonds, the Group relies on both uncommitted bilateral lines in numerous countries and a €3 billion Committed Bilateral Bonding Facility Agreement ("CBBGFA") with five tier one banks allowing issuance until 2 November 2020 of bonds with tenors up to 7 years. This bilateral line contains a change of control clause, which may result in the program being suspended, in the obligation to procure new bonds to replaces outstanding bonds or to provide cash collateral, as well as early reimbursement of the other debts of the Group, as a result of their cross-default or cross-acceleration provisions.

As at 31 March 2019, the total outstanding bonding guarantees related to contracts from continuing operations, issued by banks or insurance companies, amounted to €8.8 billion (€8.5 billion at 31 March 2018).

The available amount under the Committed Bilateral Bonding Guarantee Facility Agreement at 31 March 2019 amounts to €1.2 billion (€1.0 billion at 31 March 2018). The Committed Bilateral Bonding Guarantee Facility Agreement includes a financial covenant (leverage ratio) based on consolidated figures of the Group and consistent with the financial covenant of the revolving credit facility.

The key Group indicators used to calculate the financial covenants are detailed in Note 28.5.

NOTE 33. DISPUTES

As a preliminary remark, it shall be noted that, by taking over Alstom's Energy Businesses in November 2015, General Electric undertook to assume all risks and liabilities exclusively or predominantly associated with said businesses and in a symmetrical way, Alstom undertook to keep all risks and liabilities associated with the non-transferred business. Cross-indemnification for a duration of 30 years and asset reallocation ("wrong pocket") mechanisms have been established to ensure that, on the one hand, assets and liabilities associated with the Energy businesses being sold are indeed transferred to General Electric and on the other hand, assets and liabilities not associated with such businesses are borne by Alstom. As a result, the consequences of litigation matters that were on-going at the time of the sale and associated with these transferred activities are taken over by General Electric. Indemnity provisions protect Alstom in case of third-party claims directed at Alstom and relating to the transferred activities. For this reason and since Alstom no longer manages these litigation matters, Alstom is ceasing to include them in this section.

Disputes in the Group's ordinary course of business

The Group is engaged in several legal proceedings, mostly contract-related disputes that have arisen in the ordinary course of business. These disputes, often involving claims for contract delays or additional work, are common in the areas in which the Group operates, particularly for large long-term projects. In some cases, the amounts, which may be significant, are claimed against the Group, sometimes jointly with its consortium partners.

In some proceedings the amount claimed is not specified at the beginning of the proceedings. Amounts retained in respect of these litigations are taken into account in the estimate of margin at completion in case of contracts in progress or included in provisions and other current liabilities in case of completed contracts when considered as reliable estimates of probable liabilities. Actual costs incurred may exceed the amount of initial estimates because of a number of factors including the inherent uncertainties of the outcome of litigation.

Other disputes

Asbestos

Some of the Group's subsidiaries are subject to civil proceedings in relation to the use of asbestos in France essentially and in Italy, Spain and the United Kingdom. In France, these proceedings are initiated by certain employees or former employees suffering from an occupational disease in relation to asbestos with the aim of obtaining a court decision allowing them to obtain a supplementary compensation from the French Social Security funds. In addition employees and former employees of the Group not suffering from an asbestos related occupational disease have started lawsuits before the French courts with the aim of obtaining compensation for damages in relation to their alleged exposure to asbestos, including the specific anxiety damage.

The Group believes that the cases where it may be required to bear the financial consequences of such proceedings do not represent a material exposure. While the outcome of the existing asbestos-related cases cannot be predicted with reasonable certainty, the Group believes that these cases would not have any material adverse effect on its financial condition.

Alleged anti-competitive activities

Transportation activities in Brazil

In July 2013, the Brazilian Competition Authority ("CADE") raided a number of companies involved in transportation activities in Brazil, including the subsidiary of Alstom, following allegations of anti-competitive practices and illegal payments. After a preliminary investigation stage, CADE notified in March 2014 the opening of an administrative procedure against several companies, of which the Alstom's subsidiary in Brazil, and certain current and former employees of the Group. Alstom is cooperating with CADE. In case of proven anti-competitive practices, possible sanctions include fines, criminal charges and a temporary exclusion from public contracts. Civil damages are also possible. Following the opening phase, this procedure has continued with the phase of production of evidence. The hearing phase took place from January to March 2016, with the deposition of current and former employees of the Group as well as the questioning of witnesses. CADE has actively asserted its positions in this phase of the proceedings. The final report of the Superintendent General of CADE was issued in December 2018 and recommended the imposition of fines against Alstom's subsidiary in Brazil and several employees, together with other companies and their respective employees. If the CADE tribunal confirms this recommendation as a next procedural step, it will decide on the corresponding fines level. Alstom's subsidiary in Brazil is preparing its defense for this next phase. In parallel to this main case opened by CADE only in relation to entities and individuals formally notified when launching the proceedings in 2014, CADE launched in the Spring of 2018 formal notifications against individuals who had not been notified yet, mainly foreign individuals not residing in Brazil. The proceedings against these individuals are part of a second phase of the case. The CADE tribunal decision is expected in Summer of 2019 and can be subject to appeal. Current and former employees of Alstom are also subject to criminal proceedings initiated by the public prosecutor of the state of Sao Paulo in connection with some of the Transport projects subject to CADE procedure.

In December 2014, the public prosecutor of the state of Sao Paulo also initiated a lawsuit against Alstom's subsidiary in Brazil, along with a number of other companies, related to alleged anti-competitive practices regarding the first phase of a train maintenance project, which is also subject to administrative proceedings since 2013. In the last quarter of 2016, this Alstom subsidiary in Brazil, along with a number of other companies, faced the opening of another lawsuit by the public prosecutor of the state of Sao Paulo related to alleged anti-competitive practices regarding a second phase of the said train maintenance project. In case of proven illicit practices, possible sanctions can include the cancellation of the relevant contracts, the payment of damage compensation, the payment of punitive damages and/or the dissolution of the Brazilian companies involved.

Alleged illegal payments

Certain companies and former employees of the Group are currently being investigated and/or subject to procedures, by judicial or administrative authorities (including in Brazil, in Hungary and in France) or international financial institutions with respect to alleged illegal payments in certain countries.

With respect to these matters, the Group is cooperating with the concerned authorities or institutions. These investigations or procedures may result in criminal sanctions, including fines which may be significant, exclusion of

Group subsidiaries from tenders and third-party actions.

The Prosecutor of the State of Sao Paulo launched in May 2014 an action against a Group's subsidiary in Brazil, along with a number of other companies, for a total amount asserted against all companies of BRL2.5 billion (approximately €570 million) excluding interests and possible damages in connection with a transportation project. The Group's subsidiary is actively defending itself against this action.

In the United Kingdom, the Serious Fraud Office (SFO) began investigations in 2010. The SFO opened during fiscal year 2014/15 three criminal prosecutions against entities of the Group and certain current and past employees of the Group in connection with transportation projects located in Poland, Tunisia, India and Hungary, and with an energy project located in Lithuania that is no longer handled by Alstom. In March 2016, the SFO announced that it was pressing charges against a seventh individual in its investigation. Following a shift in the procedural calendar, the trial phase for the project in Hungary took place during the summer of 2017 and could not be concluded. It started again in September 2018 and concluded on 29 November 2018. At the Southwark Crown Court in London, Alstom Network (UK) Ltd was acquitted, by a Jury, of conspiracies to corrupt in Hungary. The trial phase for the other transportation projects took place at the beginning of 2018 and concluded on 10 April 2018. At the Southwark Crown Court in London, Alstom Network (UK) Ltd was acquitted, by a Jury, of conspiracies to corrupt in India and Poland. It was convicted on a single count of a conspiracy to corrupt in Tunisia but has lodged an appeal against this conviction. A financial penalty in relation to Tunisia has not been determined yet. It follows that should the fine be set before the appeal and should the appeal against conviction succeed, the financial penalty will be returned to the company.

Budapest metro

In 2006, Alstom was awarded by BKV a contract for the delivery of metros for two lines in the city of Budapest. During the execution of the project, Alstom experienced delays mostly related to technical change requests from BKV and the refusal by the Hungarian Authority "NKH" to deliver the final train homologation in 2010 (in August 2007, NKH granted a Preliminary Type License). On 19 October 2010 BKV terminated the contract and called the bank guarantees. In July 2011 the parties agreed the re-entry into force of the contract and the suspension of the arbitration procedure initiated by Alstom in January 2011. The final train homologation was obtained in July 2012. The arbitration proceedings resumed on 17 December 2012 and during the phase of assessments of damages by the parties, an expert was appointed by the arbitral tribunal. The expert issued preliminary findings in 2017 and the parties have submitted their responses to these findings for further consideration by the expert. An additional expert report was produced in September 2018, which was further commented by the parties. The parties have exchanged in February and March 2019 their final summary memorials. Following a final hearing held on 18 April 2019, the arbitral tribunal has indicated that it expects to render an award within 30 days. Earlier in April 2019, Alstom was informed that in connection with a local investigation relayed by the Hungarian press about alleged bribery relating to the same project as the one subject to the arbitration proceedings, four individuals including two former Alstom managers were indicted by the Central Chief Prosecution Office.

CR-1 Marmaray railway infrastructure – Turkey

In March 2007, the Turkish Ministry of Transport (DLH) awarded the contract to upgrade approximately 75 km of railway infrastructure in the Istanbul region, known as the "Marmaray Commuter Rail Project (CR-1)" to the consortium Alstom Dogus Marubeni (AMD), of which Alstom Transport's main French subsidiary is a member. This project, which included works on the transcontinental railway tunnel under the Bosphorus, has undergone significant delays mainly due to difficulties for the DLH to make the construction site available. Thus, the AMD consortium terminated the contract in 2010. This termination was challenged by DLH, who thereafter called the bank guarantees issued by the consortium up to an amount of approximately €80 million. Following injunctions, the payment of such bank guarantees was forbidden and the AMD consortium immediately initiated an arbitration procedure to resolve the substantive issues. The arbitral tribunal has decided in December 2014 that the contract stands as terminated by virtue of Turkish law and has authorised the parties to submit their claims for compensation of the damages arising from such termination. Following this decision on the merits, DLH made renewed attempts in 2015 to obtain payment of the bank guarantees but defense proceedings by the AMD consortium have enabled so far to reject these payment requests.

In the arbitration procedure, the phase of assessment of damages is over. Hearings took place in October 2017 and post-hearing submissions were exchanged in February 2018. In May 2018, the arbitral tribunal requested further submissions from the parties to clarify certain claims and the parties exchanged their submissions until July 2018. Given the complexity of the case, the finalization of the partial final award on quantum has been delayed and is now expected during the second quarter of 2019, with a decision on auxiliary topics such as legal costs or interests being part of a subsequent final award. The main next step will therefore be the issuance of the arbitral award on the quantum.

Also, through arbitration request notified on 29 September 2015, Marubeni Corporation launched proceedings against Alstom Transport SA taken as consortium leader in order to be compensated for the consequences of the termination of the contract with AMD. In a similar fashion, through arbitration request issued on 15 March 2016, the other consortium member Dogus launched proceedings against Alstom Transport SA with similar demands and a request to have the disputes between consortium members consolidated in a single case. Alstom Transport SA is rejecting these compensation requests and is defending itself in these proceedings between consortium members which, while having gone through a consolidation in a single case, have however been suspended by the arbitral tribunal pending the outcome of the main arbitral proceedings between AMD and DLH. In October 2018, Dogus applied for interim measures to clarify certain aspects of the consortium agreement and this request was rejected by the arbitral tribunal.

Regional Minuetto trains & high-speed Pendolino trains – Italy

Alstom Transport's subsidiary in Italy is involved in two litigation proceedings with the Italian railway company Trenitalia. One is related to a supply contract of regional Minuetto trains awarded in 2001 (the "Minuetto case"), and the other to a supply contract of high-speed Pendolino trains awarded in 2004 (the "Pendolino case"). Each of these contracts has undergone technical issues and delays leading the Trenitalia company to apply delay and technical penalties and, consequently, to withhold payments. Since the parties dispute certain technical matters as well as the causes and responsibilities of the delays, the matter was brought before Italian courts in 2010 and 2011 respectively. In the Minuetto case, the technical expertise report has been released and Alstom has challenged its contents with amendment requests. The technical expert submitted his final report in April 2017 and certain amendment requests were taken into account. The parties have exchanged the final summary memorials, and the next step is now the decision of the tribunal. In the Pendolino case, the technical expertise report was released and Alstom has obtained certain corrections following its challenge on some of the conclusions of the report. After the closing of the expertise phase the proceedings had continued their path on the legal aspects of the dispute. The tribunal rendered in March 2019 a decision acknowledging that a significant part of the delays was not attributable to Alstom and therefore reduced a large portion of Trenitalia's delay damage claims. The tribunal also rejected the reliability penalties claimed by Trenitalia while accepting certain of its residual damage compensation requests. Finally, the tribunal accepted Alstom's claims linked to contract price adjustment formula while rejecting some of its other cost compensation claims. If there is no appeal, the decision will become final upon expiry of the appeal period, which ends on 7 October 2019.

Saturno

Following a dispute within a consortium involving Alstom's subsidiary in Italy and three other Italian companies, the arbitral tribunal constituted to resolve the matter has rendered in August 2016 a decision against Alstom by awarding €22 million of damage compensation to the other consortium members. Alstom's subsidiary strongly contests this decision and considers that it should be able to avoid its enforcement and thus prevent any damage compensation payment. On 30 November 2016, Alstom's subsidiary filed a motion in the Court of Appeals of Milan to obtain the cancellation of the arbitral award. On 1 December 2016, Alstom's subsidiary filed an ex parte motion for injunctive relief to obtain the suspension of the arbitral award pending the outcome of the appeal proceedings, which was temporarily accepted by the Court. After a phase of hearings in contradictory proceedings on the request for suspension of the arbitral award, the Court of Appeals of Milan decided on 3 March 2017 in favor of Alstom's subsidiary by confirming definitively the suspension of this arbitral decision pending the outcome of the proceedings relating to the cancellation of such decision. The Court of Appeals of Milan ruled on the merits in March 2019 in favour of the Alstom's subsidiary and cancelled the arbitral award of August 2016 including the €22 million of damage compensation. If there is no appeal, the decision of the Court of Appeals of Milan will become final after the expiry of the appeal period, which ends on 22 October 2019.

Jerusalem LRT

On the Jerusalem light rail tramway project, a dispute started in 2009 between the Concessionaire CityPass and the State of Israel to ascertain responsibilities for certain project delays and extra costs. Alstom's subsidiary in charge of the project is involved in the dispute in its capacity as EPC Contractor. The resolution of this dispute was initially handled through some form of dispute review board with two arbitrators reviewing claims and counterclaims produced by the parties and giving instructions to delay and quantum experts. In the past months, the matter has been evolving towards full-fledged arbitration proceedings with the parties being in the process of appointing a new panel of three arbitrators who will have to decide on the resolution of the dispute. Once this arbitral tribunal is constituted, its main tasks will be to review the financial compensation claimed by the Concessionaire and Alstom for the project prolongation, and to decide on the admissibility of the counterclaims raised by the State of Israel. In the past months though, the parties decided to postpone further developments in the arbitral proceedings in order to launch a mediation process, which started in May 2018 and is presently on-going.

There are no other governmental, legal or arbitration procedures, including proceedings of which the Group is aware and which are pending or threatening, which might have, or have had during the last twelve months, a significant impact on the financial situation or profitability of the Group.

ALSTOM

K. OTHER NOTES

NOTE 34. LEASE OBLIGATIONS

(in € million)	Total	Within one year	1 to 5 yearss	Over 5 years
Long term rental (*)	270	32	127	111
Finance leases	19	2	9	8
Operating leases	415	68	160	187
TOTAL AT 31 MARCH 2019	**704**	**102**	**296**	**306**
Long term rental (*)	296	31	125	140
Finance leases	20	3	9	8
Operating leases	378	56	148	174
TOTAL AT 31 MARCH 2018	**694**	**90**	**282**	**322**

(*) Obligations related to a long-term rental of trains and associated equipment to a London metro operator (see Note 27) including interests to be paid.

NOTE 35. INDEPENDENT AUDITORS' FEES

Fees due to auditors and members of their networks in respect of years ended 31 March 2019 and 31 March 2018 were as follows:

	Year ended 31 March 2019				Year ended 31 March 2018			
	Mazars		PricewaterhouseCoopers		Mazars		PricewaterhouseCoopers	
(in € million)	Amount	%	Amount	%	Amount	%	Amount	%
Independent Auditors' diligence, certification, review of individual and consolidated accounts	**3.6**	**68%**	**3.2**	**62%**	**3.5**	**67%**	**3.1**	**65%**
ALSTOM SA	*0.5*	*9%*	*0.6*	*12%*	*0.6*	*12%*	*0.7*	*15%*
Controlled entities	*3.1*	*58%*	*2.6*	*50%*	*2.9*	*55%*	*2.4*	*50%*
Non audit services	**1.7**	**32%**	**2.0**	**38%**	**1.8**	**33%**	**1.7**	**35%**
TOTAL	**5.3**	**100%**	**5.2**	**100%**	**5.3**	**100%**	**4.8**	**100%**

Other services mainly include services rendered in connection with the combination project of Alstom and Siemens Mobility (agreed upon procedures, information document to be published by Alstom, etc), agreed-upon procedures, acquisition due diligences, technical consultations on accounting, tax and regulatory matters.

NOTE 36. RELATED PARTIES

The Group has identified the following related parties:

- Shareholders of the Group
- State & publicly owned companies
- Associates & joint ventures
- Key management personnel

36.1 Shareholders of the Group

Bouygues, a French company listed on Paris stock market, is the main shareholder of the Group, holding 27.94% of Alstom's share capital.

ALSTOM

36.2 Related-party disclosures

Bouygues and Alstom are involved in various contracts which are part of the ordinary course of business (e.g. phone contracts, «construction contracts»). These relations are subject to normal market terms and conditions. Those operating flows are not material at Group's level.

Moreover, related party transactions are also transactions with companies over which Alstom exercises significant influence or joint ventures over which Alstom exercises joint control. Those transactions with related parties are undertaken at market prices and represent less than 1% of the sales and trade receivable.

36.3 Key management personnel

The Group considers that key management personnel as defined by IAS 24 are the members of the Executive Committee.

	Year ended	
(in € thousand)	31 March 2019	31 March 2018
Short-term benefits	**11,111**	**8,710**
Fixed gross salaries	4,314	4,319
Variable gross salaries	3,400	3,368
Exceptional amounts (*)	3,397	1,023
Post-employment benefits	**1,054**	**1,177**
Post-employment defined benefit plans	-	91
Post-employment defined contribution plans	979	1,023
Other post-employment benefits	75	63
Other benefits	**3,856**	**3,394**
Non monetary benefits	1,101	882
Employer social contributions	2,755	2,512
Share-based payments (**)	**3,512**	**1,996**
TOTAL	**19,533**	**15,277**

(*) Accrued provision for the dedicated retention plan linked to the Siemens project.

(**) Mechanical increase of IFRS2 charge due to the integration of a third non vested Performance Share Plan versus 2017/18, the increased value of Alstom share on the Stock market and an additional member to the Executive Committee.

NOTE 37. SUBSEQUENT EVENTS

The Group has not identified any subsequent event to be reported other than the items already described above or in the previous notes.

ALSTOM

NOTE 38. SCOPE OF CONSOLIDATION

PARENT COMPANY			
ALSTOM SA	France	-	Parent Company

Companies	Country	Ownership %	Consolidation Method
ALSTOM Algérie "Société par Actions"	Algeria	100	Full consolidation
ALSTOM Grid Algérie SPA	Algeria	100	Full consolidation
ALSTOM Argentina S.A.	Argentina	100	Full consolidation
ALSTOM Transport Australia Pty Limited	Australia	100	Full consolidation
NOMAD DIGITAL PTY LTD	Australia	100	Full consolidation
ALSTOM Transport Azerbaijan LLC	Azerbaijan	100	Full consolidation
ALSTOM Belgium SA	Belgium	100	Full consolidation
CABLIANCE BELGIUM	Belgium	100	Full consolidation
21NET BELGIUM	Belgium	100	Full consolidation
ALSTOM Brasil Energia e Transporte Ltda	Brazil	100	Full consolidation
ETE - EQUIPAMENTOS DE TRACAO ELETRICA LTDA	Brazil	100	Full consolidation
ALSTOM Transport Canada Inc.	Canada	100	Full consolidation
ALSTOM Chile S.A.	Chile	100	Full consolidation
ALSTOM (Guangdong) High Voltage Electric Co. Ltd	China	51	Full consolidation
ALSTOM Hong Kong Ltd	China	100	Full consolidation
ALSTOM Investment Company Limited	China	100	Full consolidation
ALSTOM Qingdao Railway Equipment Co Ltd	China	51	Full consolidation
SHANGHAI ALSTOM Transport Electrical Equipment Company Ltd	China	60	Full consolidation
Chengdu ALSTOM Transport Electrical Equipment Co., Ltd.	China	60	Full consolidation
TRANSLOHR INDUSTRIAL (TIANJIN) CO. LTD	China	100	Full consolidation
XI'AN ALSTOM YONGJI ELECTRIC EQUIPMENT CO., LTD	China	51	Full consolidation
ALSTOM Transport Danmark A/S	Denmark	100	Full consolidation
NOMAD DIGITAL APS	Denmark	100	Full consolidation
NOMAD DIGITAL (DENMARK) APS	Denmark	100	Full consolidation
ALSTOM Egypt for Transport Projects SAE	Egypt	99	Full consolidation
AREVA INTERNATIONAL EGYPT FOR ELECTRICITY TRANSMISSION & DISTRIBUTION	Egypt	100	Full consolidation
ALSTOM Transport Finland Oy	Finland	100	Full consolidation
21NET France	France	100	Full consolidation
ALSTOM APTIS	France	100	Full consolidation
ALSTOM Executive Management	France	100	Full consolidation
ALSTOM Holdings	France	100	Full consolidation
ALSTOM Kleber Sixteen	France	100	Full consolidation
ALSTOM Leroux Naval	France	100	Full consolidation
ALSTOM Network Transport	France	100	Full consolidation
ALSTOM Omega 1	France	100	Full consolidation
ALSTOM SHIPWORKS	France	100	Full consolidation
ALSTOM Transport SA	France	100	Full consolidation
ALSTOM Transport Technologies	France	100	Full consolidation
CENTRE D'ESSAIS FERROVIAIRES	France	92	Full consolidation
ETOILE KLEBER	France	100	Full consolidation
INTERINFRA (COMPAGNIE INTERNATIONALE POUR LE DEVELOPPEMENT	France	50	Full consolidation
LORELEC	France	100	Full consolidation
NEWTL	France	100	Full consolidation
NTL HOLDING	France	100	Full consolidation
StationOne	France	100	Full consolidation
TRANSLOHR SAS	France	100	Full consolidation
ALSTOM Lokomotiven Service GmbH	Germany	100	Full consolidation
ALSTOM Transport Deutschland GmbH	Germany	100	Full consolidation
NOMAD DIGITAL GMBH	Germany	100	Full consolidation
VGT VORBEREITUNGSGESELLSCHAFT TRANSPORTTECHNIK GMBH	Germany	100	Full consolidation
ALSTOM Network UK Ltd	Great Britain	100	Full consolidation
ALSTOM NL Service Provision Limited	Great Britain	100	Full consolidation
ALSTOM Academy for rail	Great Britain	100	Full consolidation
ALSTOM Transport	Great Britain	100	Full consolidation
ALSTOM Transport Service Ltd	Great Britain	100	Full consolidation
ALSTOM Transport UK (Holdings) Ltd	Great Britain	100	Full consolidation
ALSTOM Transport UK Limited	Great Britain	100	Full consolidation
NOMAD DIGITAL (INDIA) LIMITED	Great Britain	70	Full consolidation
NOMAD DIGITAL LIMITED	Great Britain	100	Full consolidation
NOMAD HOLDINGS LIMITED	Great Britain	100	Full consolidation
NOMAD SOLUTIONS UK LIMITED	Great Britain	100	Full consolidation
NOMAD SPECTRUM LIMITED	Great Britain	100	Full consolidation
SIGNALLING SOLUTIONS LIMITED	Great Britain	100	Full consolidation
WASHWOOD HEATH TRAINS LTD	Great Britain	100	Full consolidation
WEST COAST SERVICE PROVISION LIMITED	Great Britain	100	Full consolidation
WEST COAST TRAINCARE LIMITED	Great Britain	100	Full consolidation
21NET LTD	Great Britain	100	Full consolidation
J&P AVAX SA - ETETH SA - ALSTOM TRANSPORT SA	Greece	34	Full consolidation
ALSTOM Transport Hungary Zrt.	Hungary	100	Full consolidation
ALSTOM Manufacturing India Private Limited	India	100	Full consolidation
ALSTOM Systems India Private Limited	India	95	Full consolidation
ALSTOM Transport India Limited	India	100	Full consolidation
MADHEPURA ELECTRIC LOCOMOTIVE PRIVATE LIMITED	India	74	Full consolidation
NOMAD DIGITAL (INDIA) PRIVATE LIMITED	India	70	Full consolidation
TWENTY ONE NET PRIVATE LTD	India	100	Full consolidation

PT ALSTOM Transport Indonesia	Indonesia	67	Full consolidation
ALSTOM Khadamat S.A.	Iran	100	Full consolidation
ALSTOM Transport Ireland Ltd	Ireland	100	Full consolidation
CITADIS ISRAEL LTD	Israel	100	Full consolidation
ALSTOM Ferroviaria S.p.A.	Italy	100	Full consolidation
ALSTOM Services Italia S.p.A.	Italy	100	Full consolidation
ALSTOM S.p.A.	Italy	100	Full consolidation
21NET ITALIA S.R.L	Italy	100	Full consolidation
ALSTOM Kazakhstan LLP	Kazakhstan	100	Full consolidation
ELECTROVOZ KURASTYRU ZAUYTY LLP	Kazakhstan	75	Full consolidation
ALSTOM Transport (Malaysia) Sdn Bhd	Malaysia	100	Full consolidation
ALSTOM Transport Mexico, S.A. de C.V.	Mexico	100	Full consolidation
ALSTOM CABLIANCE	Morocco	100	Full consolidation
ALSTOM Transport Maroc SA	Morocco	100	Full consolidation
ALSTOM Transport BV	Netherlands	100	Full consolidation
ALSTOM Transport Holdings B.V.	Netherlands	100	Full consolidation
New ALSTOM Holdings B.V.	Netherlands	100	Full consolidation
NOMAD DIGITAL B.V.	Netherlands	100	Full consolidation
AT NIGERIA LIMITED	Nigeria	100	Full consolidation
ALSTOM Transport Norway AS	Norway	100	Full consolidation
ALSTOM Panama, S.A.	Panama	100	Full consolidation
ALSTOM Transport Peru S.A.	Peru	100	Full consolidation
ALSTOM Transport Construction Philippines, Inc	Philippines	100	Full consolidation
ALSTOM Konstal Spolka Akcyjna	Poland	100	Full consolidation
ALSTOM Pyskowice Sp. z o.o.	Poland	100	Full consolidation
ALSTOM Transporte Portugal Unipessoal Lda	Portugal	100	Full consolidation
NOMAD TECH, LDA.	Portugal	51	Full consolidation
ALSTOM Transport SA (Romania)	Romania	93	Full consolidation
ALSTOM Transport Rus LLC	Russian Federation	100	Full consolidation
ALSTOM Saudi Arabia Limited	Saudi Arabia	100	Full consolidation
ALSTOM Transport (S) Pte Ltd	Singapore	100	Full consolidation
ALSTOM Southern Africa Holdings (Pty) Ltd	South Africa	100	Full consolidation
ALSTOM Transport Holdings SA (Pty) Ltd	South Africa	100	Full consolidation
ALSTOM Ubunye (Pty) Ltd	South Africa	51	Full consolidation
GIBELA RAIL TRANSPORT CONSORTIUM (PTY) LTD	South Africa	61	Full consolidation
ALSTOM Korea Transport Ltd	South Korea	100	Full consolidation
ALSTOM Espana IB, S.L.	Spain	100	Full consolidation
ALSTOM Transporte, S.A.	Spain	100	Full consolidation
APLICACIONES TECNICAS INDUSTRIALES, S.A.	Spain	100	Full consolidation
ALSTOM Transport AB	Sweden	100	Full consolidation
ALSTOM Transport Information Systems AB	Sweden	100	Full consolidation
ALSTOM Network Schweiz AG	Switzerland	100	Full consolidation
ALSTOM Schienenfahrzeuge AG	Switzerland	100	Full consolidation
ALSTOM Transport (Thailand) Co., Ltd.	Thailand	100	Full consolidation
ALSTOM T&T Ltd	Trinidad and Tobago	100	Full consolidation
ALSTOM Ulasim Anonim Sirketi	Turkey	100	Full consolidation
ALSKAW LLC	USA	100	Full consolidation
ALSTOM Transport Holding US Inc.	USA	100	Full consolidation
ALSTOM Transportation Inc.	USA	100	Full consolidation
ALSTOM Signaling Inc.	USA	100	Full consolidation
ALSTOM Signaling Operation, LLC	USA	100	Full consolidation
NOMAD DIGITAL, INC	USA	100	Full consolidation
ALSTOM Venezuela, S.A.	Venezuela	100	Full consolidation
ALSTOM Transport Vietnam Ltd	Vietnam	100	Full consolidation
ALSOMA G.E.I.E.	France	55	Joint Operation
METROLAB	France	50	Joint Operation
THE ATC JOINT VENTURE	Great Britain	38	Joint Operation
IRVIA MANTENIMIENTO FERROVIARIO, S.A.	Spain	51	Joint Operation
CITAL	Algeria	49	Equity Method
CASCO SIGNAL LTD	China	49	Equity Method
SHANGHAI ALSTOM Transport Company Limited	China	40	Equity Method
TRANSMASHHOLDING LIMITED	Cyprus	20	Equity Method
SILASIO TRADING LIMITED	Cyprus	20	Equity Method
SPEEDINNOV	France	65	Equity Method
ABC ELECTRIFICATION LTD	Great Britain	33	Equity Method
LLP JV KAZELEKTROPRIVOD	Kazakhstan	50	Equity Method
TMHS	Mongolia	20	Equity Method
RAILCOMP BV	Netherlands	60	Equity Method
THE BREAKERS INVESTMENTS B.V.	Netherlands	20	Equity Method
TMH-ALSTOM BV	Netherlands	60	Equity Method
AM-TEKH	Russian Federation	20	Equity Method
CENTRAL RESEARCH AND DEVELOPMENT INSTITUTE "TransElektroPribor"	Russian Federation	20	Equity Method
CORPORATE UNIVERSITY OF LOCOMOTIVE TECHNOLOGIES	Russian Federation	20	Equity Method
DEMIKHOVSKY MASHINOSTROITELNY ZAVOD OAO	Russian Federation	20	Equity Method

ALSTOM

FIRM LOCOTECH	Russian Federation	20	Equity Method
IVSK OOO	Russian Federation	12	Equity Method
KMT LOMONOSOVSKIY OPITNY ZAVOD PF OAO	Russian Federation	6	Equity Method
KMT UPRAVLYAUSHCHAYA KOMPANIYA ZAO	Russian Federation	8	Equity Method
KOLOMENSKY ZAVOD OAO	Russian Federation	17	Equity Method
LOCOTECH GLOBAL TRADING	Russian Federation	20	Equity Method
LOCOTECH FOUNDRY PLANTS	Russian Federation	15	Equity Method
LOCOTECH PROMSERVICE	Russian Federation	20	Equity Method
LOCOTECH LEASING	Russian Federation	15	Equity Method
LOCOTECH SERVICE	Russian Federation	20	Equity Method
MASHCONSULTING ZAO	Russian Federation	20	Equity Method
METROVAGONMASH OAO	Russian Federation	15	Equity Method
OKTYABRSKY ELEKTROVAGONOREMONTNY ZAVOD OAO	Russian Federation	15	Equity Method
OVK TMH ZAO	Russian Federation	20	Equity Method
PENZADIESELMASH OAO	Russian Federation	20	Equity Method
PO BEZHITSKAYA STAL OAO	Russian Federation	12	Equity Method
PROIZVODSTVENNAYA FIRMA KMT LOMONOSOVSKY PILOT PLANT	Russian Federation	2	Equity Method
RAILCOMP LLC	Russian Federation	60	Equity Method
ROSLOKOMOTIV ZAO	Russian Federation	20	Equity Method
RUSTRANSKOMPLEKT ZAO	Russian Federation	15	Equity Method
SAPFIR OOO	Russian Federation	20	Equity Method
TORGOVY DOM TMH ZAO	Russian Federation	20	Equity Method
TRAMRUS LLC	Russian Federation	60	Equity Method
TRANSMASH OAO	Russian Federation	12	Equity Method
TRANSMASHHOLDING ZAO	Russian Federation	20	Equity Method
TRTrans LLC	Russian Federation	60	Equity Method
TVERSKOY VAGONOSTROITELNY ZAVOD INVEST OOO	Russian Federation	5	Equity Method
TVERSKOY VAGONOSTROITELNY ZAVOD OAO	Russian Federation	10	Equity Method
UPRAVLYAUSCHAYA KOMPANIYA BRYANSKY MASHINOSTROITELNY ZAVOD ZAO	Russian Federation	20	Equity Method
VSEROSSIYSKY NAUCHNO-ISSLEDOVATELSKY I PROEKTNO-KONSTRUKTORSKY INSTITUT ELEKTROVOZOSTROENIYA OAO	Russian Federation	13	Equity Method
ZAVOD AIT	Russian Federation	10	Equity Method
ZENTROSVARMASH OAO	Russian Federation	20	Equity Method
ZHELDORREMMASH	Russian Federation	15	Equity Method
LUGANSKTEPLOVOZ OAO	Ukraine	15	Equity Method
RTA RAIL TEC ARSENAL FAHRZEUGVERSUCHSANLAGE GMBH	Austria	15	Non consolidated investment
MOBILIEGE	Belgium	15	Non consolidated investment
ISLAND CAPITAL LTD	Bermuda	1	Non consolidated investment
4iTEC 4.0	France	23	Non consolidated investment
AIRE URBAINE INVESTISSEMENT	France	4	Non consolidated investment
CADEMCE SAS	France	16	Non consolidated investment
COMPAGNIE INTERNATIONALE DE MAINTENANCE - C.I.M.	France	1	Non consolidated investment
EASYMILE	France	13	Non consolidated investment
ENTREPRISES-HABITAT IMMOBILIER	France	0	Non consolidated investment
ESPACE DOMICILE SA HABITAT LOYER MODERE	France	1	Non consolidated investment
FRAMECA - FRANCE METRO CARACAS	France	19	Non consolidated investment
MOBILITE AGGLOMERATION REMOISE SAS	France	17	Non consolidated investment
OC'VIA CONSTRUCTION	France	12	Non consolidated investment
OC'VIA MAINTENANCE	France	12	Non consolidated investment
RESTAURINTER	France	35	Non consolidated investment
SOCIETE FRANCAISE D'EXPORTATION DE SYSTEMES AVANCES	France	1	Non consolidated investment
SOCIETE IMMOBILIERE DE VIERZON	France	1	Non consolidated investment
SUPERGRID INSTITUTE SAS	France	3	Non consolidated investment
IFB INSTITUT FUR BAHNTECHNIK GMBH	Germany	7	Non consolidated investment
TRAMLINK NOTTINGHAM (HOLDINGS) LTD	Great Britain	13	Non consolidated investment
PARS SWITCH	Iran	1	Non consolidated investment
CRIT SRL	Italy	1	Non consolidated investment
CONSORZIO ELIS PER LA FORMAZIONE PROFESSIONALE SUPERIORE	Italy	0	Non consolidated investment
METRO 5 SPA	Italy	9	Non consolidated investment
S.A.T. SISTEMA AUTOMATICO DI TRASPORTO S.R.L.	Italy	20	Non consolidated investment
T.P.B. TRASPORTI PUBBLICI DELLA BRIANZA S.p.A. (in bankruptcy)	Italy	30	Non consolidated investment
TRAM DI FIRENZE S.p.A.	Italy	9	Non consolidated investment
VAL 208 TORINO GEIE	Italy	14	Non consolidated investment
SUBURBANO EXPRESS, S.A. DE C.V.	Mexico	11	Non consolidated investment
IDEON S.A.	Poland	0	Non consolidated investment
INVESTSTAR S.A.	Poland	0	Non consolidated investment
KOLMEX SA	Poland	2	Non consolidated investment
ALBALI SEÑALIZACIÓN, S.A.	Spain	12	Non consolidated investment
TRAMVIA METROPOLITA DEL BESOS SA	Spain	21	Non consolidated investment
TRAMVIA METROPOLITA, S.A.	Spain	24	Non consolidated investment