

December 31, 2019

Version under review by the statutory auditors



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CONSOLIDATED STATEMENT OF FINANCIAL POSITION

Consolidated Statement of Financial Position-Assets

(€ million)		As of January 1, 2018 repre- sented (*)	As of December 31, 2018 published	As of December 31, 2018 represented (*)	As of December 31, 2019
Goodwill	Note 7.1	4,915.7	5,107.7	5,107.7	5,128.0
Concession intangible assets	Note 7.2.1	3,475.3	3,467.3	3,467.3	3,517.4
Other intangible assets	Note 7.2.2	1,017.1	1,116.3	1,116.3	1,372.6
Property, plant and equipment	Note 7.3	7,294.4	7,856.8	7,856.8	7,679.8
Rights of use (net)	Note 7.4	1,679.5	-	1,698.5	1,664.6
Investments in joint ventures	Note 5.2	1,500.3	1,517.1	1,511.1	1,497.7
Investments in associates	Note 5.2	607.8	370.2	370.2	382.5
Non-consolidated investments		70.6	44.3	44.3	52.4
Non-current operating financial assets	Note 5.4	1,416.8	1,387.1	1,387.1	1,431.2
Non-current derivative instruments - Assets	Note 8.3	27.1	31.6	31.6	39.0
Other non-current financial assets	Note 8.1.2	348.6	332.8	332.8	374.6
Deferred tax assets	Note 11.2	995.1	1,028.2	1,043.4	952.9
Non-current assets		23,348.3	22,259.5	23,967.1	24,092.7
Inventories and work-in-progress	Note 5.3	721.6	818.0	818.0	792.0
Operating receivables	Note 5.3	8,482.7	9,016.3	9,010.1	9,341.7
Current operating financial assets	Note 5.4	197.3	99.3	99.3	86.0
Other current financial assets	Note 8.1.2	404.6	432.2	432.2	738.5
Current derivative instruments - Assets	Note 8.3	70.1	69.2	69.2	91.5
Cash and cash equivalents	Note 8.1.3	6,263.9	4,556.5	4,556.5	5,843.3
Assets classified as held for sale	Note 3.3	486.9	341.8	341.8	33.3
Current assets		16,627.1	15,333.3	15,327.1	16,926.3
TOTAL ASSETS		39,975.4	37,592.8	39,294.2	41,019.0

(*) 2018 adjustments concern the application of IFRS 16 and IFRIC 23 (see Note 1.2.2 - New standards and interpretations).

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

Consolidated Statement of Financial Position – Equity and Liabilities

(€ million)		January 1, 2018 repre- sented (*)	As of December 31, 2018 published	As of December 31, 2018 represente d (*)	As of December 31, 2019
Share capital	Note 9.2	2,816.8	2,828.0	2,828.0	2,836.3
Additional paid-in capital		7,161.2	7,182.5	7,182.5	7,197.9
Reserves and retained earnings attributable to owners of the Company		-2,601.8	-4,025.1	-4,140.9	-4,100.5
Total equity attributable to owners of the Company	Note 9.2	7,376.2	5,985.4	5,869.6	5,933.7
Total equity attributable to non-controlling interests	Note 9.3	1,147.9	1,158.9	1,151.7	1,144.7
Equity		8,524.1	7,144.3	7,021.3	7,078.4
Non-current provisions	Note 10	1,937.8	1,790.3	1,782.6	1,848.7
Non-current borrowings	Note 8.1.1	9,321.8	9,655.5	9,517.6	9,366.8
Non-current lease debt (IFRS 16)	Note 8.1.2.	1,530.3	-	1,556.0	1,417.9
Non-current derivative instruments - Liabilities	Note 8.3	108.4	55.8	55.8	52.4
Concession liabilities - non current	Note 5.5	1,281.2	1,350.4	1,350.4	1,421.7
Deferred tax liabilities	Note 11.2	970.1	1,042.6	1,042.6	984.4
Non-current liabilities		15,149.6	13,894.6	15,305.0	15,091.9
Operating payables	Note 5.3	10,161.6	10,964.9	10,999.4	11,753.6
Concession liabilities - current	Note 5.5	85.8	117.9	118.0	128.3
Current provisions	Note 10	551.6	530.1	513.2	539.1
Current borrowings	Note 8.1.1	4,571.1	4,622.5	4,593.6	5,443.7
Current lease debt (IFRS 16)	Note 8.1.1	433.5	-	425.2	465.7
Current derivative instruments - Liabilities	Note 8.3	49.1	83.7	83.7	197.8
Bank overdrafts and other cash position items	Note 8.1.3	208.9	215.7	215.7	302.2
Liabilities directly associated with assets classified as held for sale	Note 3.3	240.1	19.1	19.1	18.3
Current liabilities		16,301.7	16,553.8	16,967.9	18,848.7
TOTAL EQUITY AND LIABILITIES		39,975.4	37,592.8	39,294.2	41,019.0

(*) 2018 adjustments concern the application of IFRS 16 and IFRIC 23 (see Note 1.2.2 - New standards and interpretations).

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

CONSOLIDATED INCOME STATEMENT

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(€ million)		As of December 31, 2018 published	As of December 31, 2018 represented (*)	As of December 31, 2019
Revenue	Note 5.1	25,911.1	25,951.3	27,188.7
Cost of sales	Note 5.2	-21,671.7	-21,663.4	-22,827.7
Selling costs	Note 5.2	-610.3	-610.9	-610.6
General and administrative expenses	Note 5.2	-2,141.6	-2,149.4	-2,157.4
Other operating revenue and expenses	Note 5.2	-183.8	-183.9	-258.0
Operating income before share of net income (loss) of equity-accounted entities	Note 5.2	1,303.7	1,343.7	1,335.0
Share of net income (loss) of equity-accounted entities		115.9	115.6	129.8
o/w share of net income (loss) of joint ventures	Note 5.2.4	71.7	71.4	89.3
o/w share of net income (loss) of associates	Note 5.2	44.2	44.2	40.5
Operating income after share of net income (loss) of equity-accounted entities		1,419.6	1,459.3	1,464.8
Net finance costs	Note 8.4.1	-413.8	-413.9	-440.5
Other financial income and expenses	Note 8.4.2	-147.8	-192.1	146.7
Pre-tax net income (loss)		858.0	853.3	1,171.0
Income tax expense	Note 11.1	-200.3	-199.0	-298.5
Share of net income (loss) of other equity-accounted entities	Note 5.2.4	-	-	-
Net income (loss) from continuing operations		657.7	654.3	872.5
Net income (loss) from discontinued operations	Note 3.2.1	-50.6	-46.4	-111.9
Net income (loss) for the period		607.1	607.9	760.6
Attributable to owners of the Company		439.3	440.6	624.9
Attributable to non-controlling interests	9.2	167.8	167.3	135.7
NET INCOME (LOSS) ATTRIBUTABLE TO OWNERS OF THE COMPANY PER SHARE	Note 8.4			
Diluted		0.68	0.68	1.12
Basic		0.65	0.65	1.07
NET INCOME (LOSS) FROM CONTINUING OPERATIONS ATTRIBUTABLE TO OWNERS OF THE COMPANY PER SHARE	Note 8.4			
Diluted		0.77	0.76	1.32
Basic		0.74	0.73	1.26
NET INCOME (LOSS) FROM DISCONTINUED OPERATIONS ATTRIBUTABLE TO OWNERS OF THE COMPANY PER SHARE	Note 8.4			
Diluted		-0.09	-0.08	-0.20
Basic		-0.09	-0.08	-0.19

(*) 2018 adjustments concern the application of IFRS 16 (see Note 1.2.2 - New standards and interpretations) and the inclusion of the Lithuania accounts previously presented in discontinued operations.

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

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

(€ million)	As of December 31, 2018 published	As of December 31, 2018 represented (*)	As of December 31, 2019
Net income (loss) for the period	607.1	607.9	760.6
Actuarial gains or losses on pension obligations	-0.5	-0.5	-53.5
Income tax expense	0.5	0.5	0.7
<i>Amount net of tax</i>	-	-	-52.8
Other items of comprehensive income not subsequently released to net income	-	-	-52.8
<i>o/w attributable to joint ventures</i>	<i>-</i>	<i>-</i>	<i>-0.2</i>
<i>o/w attributable to associates</i>	<i>-0.2</i>	<i>-0.2</i>	<i>-0.1</i>
Fair value adjustments on available-for-sale assets	-5.8	-5.8	5.2
Income tax expense	1.2	1.2	-1.5
<i>Amount net of tax</i>	<i>-4.6</i>	<i>-4.6</i>	<i>3.7</i>
Fair value adjustments on cash flow hedge derivatives	0.7	0.7	-0.7
Income tax expense	-1.2	-1.2	0.7
<i>Amount net of tax</i>	<i>-0.5</i>	<i>-0.5</i>	<i>-</i>
Foreign exchange gains and losses:	-	-	-
• on the translation of the financial statements of subsidiaries drawn up in a foreign currency	-114.1	-113.1	-109.0
<i>Amount net of tax</i>	<i>-114.1</i>	<i>-113.1</i>	<i>-109.0</i>
• on the net financing of foreign operations	-25.1	-25.1	112.3
• income tax expense	-	-	-
<i>Amount net of tax</i>	<i>-25.1</i>	<i>-25.1</i>	<i>112.3</i>
Other items of comprehensive income subsequently released to net income	-144.3	-143.3	7.0
<i>o/w attributable to joint ventures ⁽¹⁾</i>	<i>-5.7</i>	<i>-5.7</i>	<i>-4.6</i>
<i>o/w attributable to associates</i>	<i>-1.6</i>	<i>-1.6</i>	<i>2.2</i>
Total Other comprehensive income	-144.3	-143.3	-45.8
TOTAL COMPREHENSIVE INCOME FOR THE PERIOD	462.8	464.6	714.8
Attributable to owners of the Company	300.8	303.1	589.5
Attributable to non-controlling interests	162.0	161.5	125.3

(*) 2018 adjustments concern the application of IFRS 16 (see Note 1.2.2 - New standards and interpretations) and the inclusion of the Lithuania accounts previously presented in discontinued operations.

(1) The share attributable to joint ventures mainly concerns the change in foreign exchange translation reserves of the Chinese concessions (-€7.3 million for the year ended December 31, 2019 and -€12.8 million for the year ended December 31, 2018 represented).

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

CONSOLIDATED CASH FLOW STATEMENT

FINANCIAL STATEMENTS

(€ million)	Notes	As of December 31, 2018 published	As of December 31, 2018 represented (*)	As of December 31, 2019
Net income (loss) for the period		607.1	607.9	760.6
Net income (loss) from continuing operations		657.7	654.3	872.5
Net income (loss) from discontinued operations		-50.6	-46.4	-111.9
Operating depreciation, amortization, provisions and impairment losses		1,399.4	1,810.5	2,028.1
Financial amortization and impairment losses		6.4	6.4	0.7
Gains (losses) on disposal of operating assets		-10.9	-11.2	12.5
Gains (losses) on disposal of financial assets		-13.1	-12.3	-403.0
Share of net income (loss) of joint ventures	Note 5.2.4	-71.7	-71.4	-89.3
Share of net income (loss) of associates	Note 5.2.4	-44.2	-44.2	-40.5
Dividends received	Note 8.4.2.	-4.4	-4.4	-3.4
Net finance costs	Note 8.4.1	413.9	414.0	440.5
Income tax expense	Note 11	200.2	198.9	298.5
Other items		136.8	182.3	138.4
Operating cash flow before changes in operating working capital ⁽²⁾		2,670.1	3,122.9	3,255.0
Change in operating working capital requirements		61.8	60.1	208.9
Change in concession working capital requirements		-147.1	-147.1	-103.6
Income taxes paid		-193.7	-192.7	-241.8
Net cash from operating activities of continuing operations		2,391.1	2,843.2	3,118.5
Net cash from operating activities of discontinued operations		-0.1	-2.9	-30.7
Net cash from operating activities		2,391.0	2,840.3	3,087.8
Industrial investments, net of grants		-1,490.4	-1,483.7	-1,676.0
Proceeds on disposal of industrial assets		59.2	78.5	162.8
Purchases of investments	Note 3.2	-458.8	-458.8	-321.6
Proceeds on disposal of financial assets	Note 3.2	245.1	245.1	1,524.8
Operating financial assets		-	-	-
New operating financial assets	Note 5.4	-159.3	-159.3	-177.9
Principal payments on operating financial assets	Note 5.4	135.1	135.1	161.8
Dividends received (including dividends received from joint ventures and associates)		115.0	115.0	97.9
New non-current loans granted		-678.6	-678.6	-208.3
Principal payments on non-current loans		675.7	675.7	167.2
Net decrease/increase in current loans		-17.4	-17.4	14.0
Net cash used in investing activities of continuing operations		-1,574.4	-1,548.4	-255.3
Net cash used in investing activities of discontinued operations		-3.2	-2.0	-
Net cash used in investing activities		-1,577.6	-1,550.4	-255.3
Net increase (decrease) in current borrowings	Note 8.1.1	-980.3	-956.4	-465.0

FINANCIAL STATEMENTS

(€ million)	Notes	As of December 31, 2018 published	As of December 31, represented (*)	As of December 31, 2019
Change in current lease debt (IFRS 16)	Note 8.1.1	-	-425.8	-470.9
Repayment of hybrid debt	Note 8.1.1	-1,452.1	-1,452.1	-
Repayment of / (New) non-current lease debt (IFRS 16)	Note 8.1.1	-	-38.8	-76.3
New non-current borrowings and other debts	Note 8.1.1	1,100.0	1,100.0	1,824.4
Principal payments on non-current borrowings and other debts	Note 8.1.1	-157.5	-147.7	-850.0
Change in liquid assets and financing financial assets	Note 8.1.2	-17.4	-17.4	-274.7
Proceeds on issue of shares	Note 9.2	43.8	43.8	16.7
Share capital reduction		-	-	-
Transactions with non-controlling interests: partial purchases		-109.8	-109.8	-127.8
Transactions with non-controlling interests: partial sales		229.9	229.9	10.2
Proceeds on issue of deeply subordinated securities		-	-	-5.5
Coupons on deeply subordinated securities	Note 8.3	-66.4	-66.4	-
Purchases of/proceeds from treasury shares		-10.5	-10.5	1.2
Dividends paid		-592.4	-592.4	-661.0
Interest paid	Note 8.4.1	-406.2	-406.6	-427.5
Interest on operating assets - IFRIC 12		-94.2	-94.2	-81.3
Interest on lease IFRS 16 (**)		-	-45.5	-40.8
Net cash from (used in) financing activities of continuing operations		-2,513.1	-2,989.9	-1,628.3
Net cash from financing activities of discontinued operations		-0.2	-	-
Net cash from (used in) financing activities		-2,513.3	-2,989.9	-1,628.3
Effect of foreign exchange rate changes and other		-15.7	-16.2	-3.9
Increase (decrease) in external net cash of discontinued operations		1.5	2.0	-
Net cash at the beginning of the year		6,055.0	6,055.0	4,340.8
Net cash at the end of the year		4,340.8	4,340.8	5,541.1
Cash and cash equivalents	Note 8.1.3	4,556.5	4,556.5	5,843.3
Bank overdrafts and other cash position items	Note 8.1.3	215.7	215.7	302.2
Net cash at the end of the year		4,340.8	4,340.8	5,541.1

(*) 2018 adjustments concern the application of IFRS 16 (see Note 1.2.2 - New standards and interpretations) with impacts on Operating Cash flow for € 453 million and change in current and non-current lease debt (IFRS16)

(**) Interests on IFRS 16 lease debt are not included in the Cost of net financial debt, but in Other financial income and expenses (see note 8.4)

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

STATEMENT OF CHANGES IN EQUITY

FINANCIAL STATEMENTS

(€ million)	Number of shares outstanding	Share capital	Additional paid-in capital	Deeply subordinated securities and OCEANE	Treasury shares	Consolidated reserves and retained earnings	Foreign exchange translation reserves	Fair value reserves	Equity attributable to owners of the Company	Non- controlling interests	Total equity
Amount as of January 1, 2018 published	563,364,823	2,816.8	7,161.2	1,195.1	-434.1	-3,231.2	28.7	-56.3	7,480.2	1,153.7	8,633.9
IFRS 16 impact	-	-	-	-	-	-104.0	-	-	-104.0	-5.8	-109.8
Amount as of January 1, 2018 represented	563,364,823	2,816.8	7,161.2	1,195.1	-434.1	-3,335.2	28.7	-56.3	7,376.2	1,147.9	8,524.1
Issues of share capital of the parent company	2,228,518	11.2	21.3	-	-	-10.8	-	-	21.7	-	21.7
Proceeds on issue of deeply subordinated securities	-	-	-	-1,470.2	-	18.1	-	-	-1,452.1	-	-1,452.1
OCEANE equity component	-	-	-	-	-	-	-	-	-	-	-
Reclassification of coupons paid on hybrid debt / deeply subordinated securities	-	-	-	359.1	-	-359.1	-	-	-	-	-
Coupon on deeply subordinated securities	-	-	-	-66.4	-	-	-	-	-66.4	-	-66.4
Parent company dividend distribution	-	-	-	-	-	-462.6	-	-	-462.6	-	-462.6
Elimination of treasury shares	-	-	-	-	-10.0	-0.5	-	-	-10.5	-	-10.5
Share-based payments	-	-	-	-	-	17.4	-	-	17.4	-	17.4
Third party share in share capital increases of subsidiaries	-	-	-	-	-	-	-	-	-	22.1	22.1
Third party share in dividend distributions of subsidiaries	-	-	-	-	-	-	-	-	-	-129.8	-129.8
Transactions with non-controlling interests	-	-	-	-	-	152.8	-	-	152.8	-27.3	125.5
Total transactions with non- controlling interests	2,228,518	11.2	21.3	-1,177.5	-10.0	-644.7	-	-	-1,799.7	-135.0	-1,934.7
Other comprehensive income	-	-	-	-	-	-0.5	-130.8	-6.2	-137.5	-5.8	-143.3
Net income for the period	-	-	-	-	-	440.6	-	-	440.6	167.3	607.9
Total comprehensive income for the period	-	-	-	-	-	440.1	-130.8	-6.2	303.1	161.5	464.6
Other movements	-	-	-	-	-	-10.0	-	-	-10.0	-22.7	-32.7
Amount as of December 31, 2019	565,593,341	2,828.0	7,182.5	17.6	-444.1	-3,549.8	-102.1	-62.5	5,869.6	1,151.7	7,021.3

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(€ million)	Number of shares outstanding	Share capital	Additional paid-in capital	Deeply subordinated securities and OCEANE	Treasury shares	Consolidated reserves and retained earnings	Foreign exchange translation reserves	Fair value reserves	Equity attributable to owners of the Company	Non- controlling interests	Total equity
Amount as of December 31, 2018 published	565,593,341	2,828.0	7,182.5	17.6	-444.1	-3,433.0	-103.1	-62.5	5,985	1,158.9	7,144.3
IFRS 16 impact	0	-	-	-	-	-116.8	1.0	-	-115.8	-7.2	-123.0
Amount as of December 31, 2018 represented	565,593,341	2,828.0	7,182.5	17.6	-444.1	-3,549.8	-102.1	-62.5	5,869.6	1,151.7	7,021.3
Issues of share capital of the parent company	1,673,198	8.3	15.4	-	-	-7.0	-	-	16.7	-	16.7
Proceeds on issue of deeply subordinated securities	-	-	-	-5.5	-	-	-	-	-5.5	-	-5.5
OCEANE Equity component	-	-	-	-12.1	-	12.1	-	-	-	-	-
Reclassification of hybrid debt / deeply subordinated securities	-	-	-	-	-	-	-	-	-	-	-
Coupon on deeply subordinated securities	-	-	-	-	-	-	-	-	-	-	-
Parent company dividend distribution	-	-	-	-	-	-509.1	-	-	-509.1	-	-509.1
Elimination of treasury shares	-	-	-	-	1.7	-0.5	-	-	1.2	-	1.2
Share-based payments	-	-	-	-	-	21.4	-	-	21.4	-	21.4
Third party share in share capital increases of subsidiaries	-	-	-	-	-	-	-	-	0.0	-7.4	-7.4
Third party share in dividend distributions of subsidiaries	-	-	-	-	-	-	-	-	0.0	-151.9	-151.9
Transactions with non-controlling interests	-	-	-	-	-	-86.5	-	-	-86.5	4.4	-82.1
Total transactions with non-controlling interests	1,673,198	8.3	15.4	-17.6	1.7	-569.6	-	-	-561.8	-154.9	-716.7
Other comprehensive income	-	-	-	-	-	-50.3	9.5	5.4	-35.4	-10.4	-45.8
Net income for the period	-	-	-	-	-	624.9	-	-	624.9	135.7	760.6
Total comprehensive income for the period	-	-	-	-	-	574.6	9.5	5.4	589.5	125.3	714.8
Other movements	-	-	-	-	-	36.4	-	-	36.4	22.6	59.0
Amount as of December 31, 2019	567,266,539	2,836.3	7,197.9	-	-442.4	-3,508.4	-92.6	-57.1	5,933.7	1,144.7	7,078.4

(*) Other movements are related to Argentina hyperinflationary impact

FINANCIAL STATEMENTS

A dividend per share of €0.92 was distributed in 2019, compared with €0.84 in 2018.

A dividend distribution of €1.0 per share is proposed to the General Shareholders' Meeting of April 22, 2020.

The total dividend paid recorded in the Consolidated Cash Flow Statement of €661 million and €592 million for the years ended December 31, 2019 and 2018, respectively, breaks down as follows:

<i>(€ million)</i>	As of December 31, 2018 represented	As of December 31, 2019
Parent company dividend distribution	-462.6	-509.1
Third party share in dividend distributions of subsidiaries	-129.8	-151.9
Scrip dividend	-	-
TOTAL DIVIDEND PAID	-592.4	-661.0

Notes to the consolidated financial statements

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ACCOUNTING PRINCIPLES AND METHODS

1.1 General principles underlying the preparation of the financial statements

The accounting methods presented in these notes to the consolidated financial statements have been applied consistently for all periods presented in the consolidated financial statements.

The consolidated financial statements are presented on a historical cost basis, with the exception of assets and liabilities held for sale measured in accordance with IFRS 5 and assets and liabilities recognized at fair value: derivatives, financial instruments held for trading, financial instruments at fair value (in accordance with IFRS 9).

The Veolia Environnement consolidated financial statements for the year ended December 31, 2019 were adopted by the Board of Directors on February 26, 2020 and will be presented for approval at the General Shareholders' Meeting on April 22, 2020.

1.2 Accounting standards framework

1.2.1 Basis underlying the preparation of the financial information

Pursuant to Regulation no.1606/2002 of July 19, 2002, as amended by European Regulation no.297/2008 of March 11, 2008, the consolidated financial statements are presented in accordance with IFRS (International Financial Reporting Standards) as adopted by the European Union. These standards may be consulted at the following European Union website: http://ec.europa.eu/internal_market/accounting/ias/index_en.htm.

In the absence of IFRS standards or interpretations and in accordance with IAS 8, Accounting Policies, Changes in Accounting Estimates and Errors, Veolia refers to other IFRS dealing with similar or related issues and the conceptual framework.

The consolidated financial statements are presented in millions of euros, unless stated otherwise.

The consolidated financial statements comprise the financial statements of Veolia Environnement, the entities it controls (its subsidiaries) and the entities equity accounted. The financial statements of subsidiaries are drawn up for the same reference period as those of the parent company, from January 1, to December 31, 2019, in accordance with uniform accounting policies and methods.

1.2.2 Standards, standard amendments and interpretations applicable from fiscal year 2019

The accounting principles and valuation rules applied by the Group in preparing the consolidated financial statements for the year ended December 31, 2019 are identical to those applied by the Group as of December 31, 2018 with the exception of:



• **IFRS 16, Leases**

Since January 1, 2019, Veolia applies the new lease standard (IFRS16), which replaces IAS 17 and the related interpretations, IFRIC 4 (on arrangements containing a lease) and SIC15 / SIC27 (on operating leases and arrangements that contain a lease in substance).

Application of this new standard requires the recognition in the balance sheet of all lease commitments as defined in the new standard and does not distinguish between operating leases, disclosed until now in off-balance sheet commitments, and finance leases.

The implementation of this new standard involves recognition in the balance sheet of:

- a new asset, the “Right of use”, which represents the right to use the leased asset during the term of the lease;
- a liability, the “Lease debt (IFRS16)”, which represents the lease payment commitment.

In the Consolidated Income Statement, the cancellation of the lease expense leads to the recognition of the following impacts:

- depreciation of the right of use asset;
- interest on the lease debt (IFRS 16).

In the Consolidated Cash Flow Statement, the repayment of the lease debt principal and the related interest are recorded in financing cash flows.

Finally, the IFRS 16 lease debt is included in the aggregate, Group net financial debt (see Note 8.3.2.1)

The Group has implemented a dedicated IT solution to calculate the impacts of leases and enable their operational monitoring. This is used to:

- input leases (around 45,000 leases were in effect at the transition date);
- periodically update information (new contracts, amendments to existing contracts);
- generate accounting journals and lease summary and monitoring reports.

Accounting policies and methods adopted

The Group has elected to apply IFRS 16 as of January 1, 2019 using the full retrospective method, leading to the recognition of impacts in the opening balance sheet as of January 1, 2018.

In accordance with IFRS 16 transition provisions, the Group did not re-assess contracts identified as containing or not containing a lease under IAS 17/IFRIC 4. The accounting exemptions allowed under the standard for short-term leases (12 months or less) and leases of assets with a low value, were applied. The Group adopted a threshold of US\$5,000 for low value assets. Lease payments on exempt contracts and variable payments, continue to be recognized as operating expenses. Of the structuring points contained in this new standard, the Group focused particularly on lease terms, options contained in contractual agreements and discount rates to be applied.

- The Group analyzes each lease individually to determine its term and, in the absence of renewal and/or early termination options that are reasonably certain to be exercised or not exercised, the enforceable period is adopted. The enforceable period is also assessed taking account of the lease's economic environment,
- As authorized by the standard, the Group has elected not to use the rate implicit in the lease as the discount rate, and has developed a calculation method to determine the incremental borrowing rate that would apply to the financing of our leased assets.

The discount rate is calculated by currency and maturity based on the following parameters: reference rate of the relevant currency and the Veolia credit spread, the Group satisfying, through access to the bond market, the majority of the financing requirements of its subsidiaries.

The Group recognized deferred tax on the net timing differences relating to assets and liabilities resulting from the application of IFRS 16.

The Group is closely monitoring ongoing lease discussions within the IFRIC Interpretations Committee, and will adjust the accounting methods adopted where necessary.

- **IFRIC 23, Uncertainty over Income Tax Treatments**

The Group reviewed its uncertain tax positions and did not identify any impact on the measurement of taxes within the scope of IAS 12 (income tax). Uncertain tax liabilities have been reclassified in the amount of €34.4 million from "Provisions for tax litigation" to "Tax payables" in the Consolidated Statement of Financial Position.

- **Amendment to IFRS 9, Financial Instruments**, regarding prepayment features with negative compensation;
- **Amendment to IAS 28** regarding long-term interests in associates and joint ventures;
- **Amendments resulting from the IFRS annual improvement process (2015-2017 cycle)**;
- **Amendment to IAS 19 regarding plan amendments, curtailments and settlements.**

The new lease standard and the interpretation on uncertainty over income tax treatments impact the main aggregates in the Consolidated Statement of Financial Position and the Consolidated Income Statement as followed:

(€ million)	As of December 31, 2018 published	IFRS 16 Impacts	Impacts IFRIC 23	As of December 31, 2018 represented
Goodwill and intangible assets	9,691.3	-	-	9,691.3
Tangible assets	7,856.8	-	-	7,856.8
Right of use assets (net)	-	1,698.5	-	1,698.5
Other Non-Current Assets	3,683.2	-6.1	-	3,677.1
Deferred Tax - Assets	1,028.2	15.2	-	1,043.4
TOTAL NET NON CURRENT ASSETS	22,259.5	1,707.6	-	23,967.1
CURRENT ASSETS	15,333.3	-6.2	-	15,327.1
TOTAL ASSETS	37,592.8	1,701.4	-	39,294.2
TOTAL SHAREHOLDERS' FUNDS	7,144.3	-123.0	-	7,021.3
Non Current Financial Debts	9,655.5	1,418.1	-	11,073.6
Non current provisions	1,790.3	10.2	-18.0	1,782.5
Other Non-Current Liabilities	2,448.8	-	-	2,448.8
NON-CURRENT LIABILITIES	13,894.6	1,428.3	-18.0	15,305.0
Payables relating	10,964.9	0.2	34.4	10,999.5
Current provisions	530.1	-0.5	-16.4	513.2
Other Current Liabilities	436.4	-	-	436.4
Other Current financial debts	4,622.5	396.4	-	5,018.9
CURRENT LIABILITIES	16,553.9	396.1	18.0	16,968.0
TOTAL LIABILITIES	37,592.8	1,701.4	-	39,294.2

(€ million)	December, 2018 Published	IFRS 5	IFRS 16 Impacts	IFRIC 23 impacts	December, 2018 Pro forma
Revenue	25,911.1	40.1	-	-	25,951.2
Operating Income	1,419.6	-3.9	43.7	-	1,459.4
Financial Income	-561.6	-1.1	-43.3	-	-606.0
Resultat Net part du Groupe	439.3	-	1.3	-	440.6

Other than the quantified impacts presented above, the first-time application of the other texts did not have a material impact for the Group.

1.2.3 Texts which enter into mandatory effect after December 31, 2017 and not adopted early by the Group:

- **IFRS 17, Insurance contracts;**
- **Amendments to IAS 1 and IAS 8,** regarding the definition of material;
- **Amendment to IFRS 3,** regarding the definition of a business;
- **Amendments to IFRS 9 and IFRS 7,** relating to the interest rate benchmark reform;

With regards to the interest rate benchmark reform amendments to [IFRS 7, Financial Instruments: Disclosures](#), [IFRS 9, Financial Instruments](#) and [IAS 39, Financial Instruments: Recognition and Measurement](#), the Group considers:

- the index reform does not modify the benchmark rates to which contractual cash flows of hedged items and hedging instruments are indexed and does not call into question the prospective efficiency of hedging relationships with regard to the amount of cash flows from hedged items or hedging instruments, or the timing of these cash flows;
- uncertainties will remain regarding the timing and amount of future cash flows from hedged items and hedging instruments, as long as the alternative benchmark rates and the replacement date are not known.

However, the majority of Group contracts that refer to IBOR include clauses detailing how to determine a substitute benchmark index in the event of temporary unavailability of the index, the financial sector having not yet reached a consensus on the definitive method for replacing IBOR following its disappearance.

- **Amendments to IAS 1** on the classification of liabilities as current or non-current;
- **Amendments to references to the conceptual framework in IFRS.**

These texts have been endorsed or are in the course of endorsement by the European Union and are of mandatory application for fiscal years beginning on or after January 1, 2020. The Group is currently assessing the potential impact of the first-time application of these texts.

Subject to their definitive adoption by the European Union, these standards and standard amendments are of mandatory application for fiscal years beginning on or after January 1, 2018. The Group is currently assessing the potential impact of the first-time application of these texts.

1.3 Translation of foreign subsidiaries' financial statements

1.3.1 Exchange rate:

Statements of financial position, income statements and cash flow statements of subsidiaries whose functional currency is different from the presentation currency of the Group are translated into the presentation currency at the applicable rate of exchange (i.e. the year-end rate for statement of financial position items and the average annual rate for income statement and cash flow items). Foreign exchange translation gains and losses are recorded in other comprehensive income in equity. The exchange rates of the major currencies of non-euro countries used in the preparation of the consolidated financial statements were as follows:



Period-end exchange rate (one foreign currency unit = €xx)	Year ended December 31, 2018	Year ended December 31, 2019
U.S. Dollar	0.8734	0.8902
Pound sterling	1.1179	1.1754
Chinese renminbi	0.1268	0.1283
Australian dollar	0.6165	0.6252
Polish zloty	0.2325	0.2349
Argentinian Peso	0.0232	0.0149
Mexican Peso	0.0445	0.0471
Brazilian Real	0.2250	0.2214
Czech crown	0.0389	0.0394

Average exchange rate (one foreign currency unit = €xx)	Average annual rate 2018	Average annual rate 2019
U.S. Dollar	0.8465	0.8932
Pound sterling	1.1304	1.1398
Chinese renminbi	0.1281	0.1292
Australian dollar	0.6328	0.6210
Polish zloty	0.2347	0.2327
Argentinian Peso	0.0304	0.0185
Mexican Peso	0.0440	0.0464
Brazilian Real	0.2322	0.2266
Czech crown	0.0392	0.0390

1.3.2 Hyperinflation:

The market consensus is that Argentina is a hyperinflationary economy since July 1, 2018. The provisions of IAS 29 are, however, applicable from the beginning of the period in which the existence of hyperinflation is identified (IAS 29.4). The Group has therefore applied in the consolidated statements as of December 2019 the provisions of IAS 29 from January 1, 2018 for its businesses in Argentina.

1.4 Foreign currency transactions

Foreign currency transactions are translated into euro at the exchange rate prevailing at the transaction date. At the year end, foreign currency-denominated monetary assets and liabilities are remeasured at year-end exchange rates. The resulting foreign exchange gains and losses are recorded in net income for the period.

Loans to a foreign subsidiary, the settlement of which is neither planned nor probable in the foreseeable future represent, in substance, a portion of the Group's net investment in this foreign operation. Foreign exchange gains and

losses on monetary items forming part of a net investment are recognized directly in other comprehensive income in foreign exchange translation adjustments and are released to net income on the disposal of the net investment.

Exchange gains and losses on foreign currency-denominated borrowings or on currency derivatives that qualify as hedges of a net investment in a foreign operation, are recognized directly in other comprehensive income as foreign exchange translation adjustments. Amounts recognized in other comprehensive income are released to income on the date of disposal of the relevant investment.

Foreign currency-denominated non-monetary assets and liabilities recognized at historical cost are translated using the exchange rate prevailing as of the transaction date. Foreign currency-denominated non-monetary assets and liabilities recognized at fair value are translated using the exchange rate prevailing as of the date the fair value is determined.

NOTE 2

USE OF MANAGEMENT ESTIMATES IN THE APPLICATION OF GROUP ACCOUNTING STANDARDS

Veolia may be required to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses, and the disclosures of contingent assets and liabilities. Future results may be different from these estimates.

Underlying estimates and assumptions are determined based on past experience and other factors considered as reasonable given the circumstances. They act as a basis for making judgments necessary to the determination of the carrying amount of assets and liabilities, which cannot be obtained directly from other sources. Future values could differ from these estimates.

All these estimates are based on organized procedures for the collection of forecast information on future flows, validated by operating management, and on expected market data based on external indicators and used in accordance with consistent and documented methodologies.

Underlying estimates and assumptions are reviewed on an ongoing basis. The impact of changes in accounting estimates is recognized in the period the change is made if it affects this period only and in the period the change is made and prior periods if they are also affected by the change.

With regards to Brexit, an agreement governing the UK's exit from the European Union was adopted on October 17, 2019. After validation by the UK parliament on January 9, 2020, and subject to its ratification by the European parliament, the United Kingdom will leave the European Union on January 31, 2020. Beyond the macro-economic effects which still remain uncertain, the Group's exposure to foreign exchange transactional risk appears limited as of December 31, 2019, the Group's activities being performed by subsidiaries operating in their own country and their own currency. With regard to foreign exchange risk on assets, as it is Group policy to back net foreign investments with foreign-currency financing or foreign currency derivatives, the Group does not have a material foreign exchange position that could generate significant volatility in foreign exchange gains and losses. With respect to translation risk, please refer to note 8.3.2.1.

Estimates made by the Group in preparing the consolidated financial statements primarily concern:

- determining the recoverable amount of goodwill, intangible assets and property, plant and equipment: notes 5.2 and 7 presents future flow assumptions and the discount rates used to measure the recoverable amount of these assets. Sensitivity analyses were also performed and are presented in the aforementioned note;



- measuring provisions and the employee benefit obligation as well as contingent assets and liabilities (notes 6, 10 and 12): Veolia took account of the best estimate of these obligations when measuring these provisions;
- determining the fair value of financial instruments (Note 8.3) including derivatives; Veolia measured these derivative instruments and performed the necessary efficiency tests;
- the amount of deferred tax assets and liabilities and the tax expense recognized (Note 11.2): these balances represent the tax position of the Group and are based, primarily in France and in the United States, on best estimates available to the Group of results of tax audits in progress and trends in future tax results;
- methods used for determining identifiable assets acquired and liabilities assumed in business combinations.

In addition, pursuant to the provisions of IFRS 5, Non-Current Assets Held for Sale and Discontinued Operations, the Group must exercise judgment in determining whether the criteria for recognizing an asset or group of assets as held for sale are met. Furthermore, discontinued operations are identified with respect to criteria also defined in IFRS 5. These assessments are reviewed at each period end taking account of any changes in facts or circumstances.

Finally, Veolia must make assumptions and judgments when assessing the level of control exercised over certain investments and particularly when defining relevant activities and identifying substantial rights. These judgments are reassessed when the facts and circumstances change.

The Group used the following discount rate calculation methodology for the purpose of these estimates:

- application of IAS 36, Impairment of assets: in accordance with Group practice, the discount rates used correspond to the weighted-average cost of capital, calculated annually. A specific risk premium is included in the calculation of the weighted average cost of capital of entities located in countries outside the euro area and the following euro area countries: Spain, Italy, Portugal.
- application of IAS 37, Provisions, Contingent Liabilities and Contingent Assets: the discount rates used consist of a risk-free interest rate and a risk premium specific to the underlying assets and liabilities;
- application of IAS 19 revised, Employee Benefits: commitments were measured using a range of market indices and, in particular, the Iboxx index and data provided by actuaries. The same method was used year-on-year.

NOTE 3 CONSOLIDATION SCOPE

3.1 Accounting principles relating to the consolidation scope

3.1.1 Consolidation principles

CONTROLLED ENTITIES

Veolia Environnement fully consolidates all entities over which it exercises control.

Definition of control

Control exists when the Group (i) holds power over an entity, (ii) is exposed or has rights to variable returns from its involvement with the entity and (iii) has the ability to use its power over the entity to effect the amount of its returns.

The Group reassesses whether or not it controls an entity if facts and circumstances indicate that there are changes to one or more of the elements of control.

Full consolidation

The Group consolidates a subsidiary in its consolidated financial statements from the date it obtains control of the entity to the date it ceases to control the entity.

Interests that are not directly or indirectly attributable to the Group are recorded in non-controlling interests.

Net income and each component of other comprehensive income of subsidiaries are attributed to owners of the Company and to non-controlling interests. Total comprehensive income of subsidiaries is attributed to owners of the Company and to non-controlling interests, even if this results in non-controlling interests having a deficit balance.

Change in ownership interests in consolidated subsidiaries

Changes in the Group's ownership interests in subsidiaries that do not result in a change in control over the subsidiaries are accounted for as equity transactions, as they are transactions performed by shareholders acting in this capacity.

The effects of these transactions are recognized in equity at their net-of-tax amount and do not therefore impact the Consolidated Income Statement of the Group.

These transactions are presented in financing activities in the Consolidated Cash Flow Statement.



INVESTMENTS IN JOINT VENTURES AND ASSOCIATES

Definition

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the entity but is not control or joint control of those policies.

A joint venture is a joint arrangement whereby the parties that have joint control of the entity have rights to its net assets.

Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

Accounting for joint ventures and associates

The results and assets and liabilities of associates or joint ventures are incorporated in the Group consolidated financial statements using the equity method of accounting, except when the investment is classified as held for sale, in which case it is accounted for in accordance with the provisions of IFRS 5, Non-Current Assets Held for Sale and Discontinued Operations.

Under the equity method, the investment in the associate or joint venture is initially recognized at acquisition cost and subsequently adjusted to recognize the Group's share of the net income and other comprehensive income of the associate or joint venture.

When a Group entity transacts with an associate or joint venture of the Group, profits and losses resulting from the transaction with the associate or joint venture are recognized in the Group consolidated financial statements only to the extent of interests in the associate or joint venture.

The share of net income (loss) of equity-accounted entities is included in the Group Consolidated Income Statement. Pursuant to recommendation no. 2013-01 issued by the French Accounting Standards Authority (*Autorité des Normes Comptables*, ANC) on April 4, 2013, the share of net income (loss) of equity-accounted entities must be included in "Operating income after share of net income (loss) of equity-accounted entities" or presented in a separate line "Share of net income (loss) of other equity-accounted entities" depending on whether the activities of such entities represent an extension of the Group's businesses.

Impairment tests

When necessary, the carrying amount of the investment in associate or joint-venture (including goodwill) is tested for impairment in accordance with IAS 36, Impairment of Assets.

Loss of significant influence or joint control

The equity method is discontinued from the date the investment ceases to be an associate or a joint venture. Where the Group retains a residual interest in the entity and that interest is a financial asset, the financial asset is measured at fair value at the date the investment ceases to be an associate or a joint venture.

Where an investment in an associate becomes an investment in a joint venture, or vice versa, the equity method continues to be applied and the change in ownership interest does not trigger remeasurement to fair value.

INVESTMENTS IN JOINT OPERATIONS

Definition

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have direct rights to the assets, and obligations for the liabilities, relating to the arrangement.

Accounting for joint operations

As a joint operator in a joint operation, the Group recognizes in relation to its interest in the joint operation:

- its assets, including its share of any assets held jointly;
- its liabilities, including its share of any liabilities incurred jointly;
- its revenue from the sale of its share of the output arising from the joint operation;
- its expenses, including its share of any expenses incurred jointly.

3.1.2 Transactions impacting the consolidation scope

BUSINESS COMBINATIONS AND GOODWILL

Business combinations are recorded in accordance with the acquisition method as defined in IFRS 3, revised.

Under this method, identifiable assets acquired and liabilities assumed of the acquiree are recorded at fair value at the acquisition date.

The goodwill arising from the business combination is measured as the excess of the aggregate of the consideration transferred, the amount of any non-controlling interest and, where applicable, the fair value of any previously held interest, over the net of the acquisition-date amounts of the identifiable assets acquired and liabilities assumed.

This goodwill is measured in the functional currency of the company acquired and recognized in assets in the Consolidated Statement of Financial Position.

The Group may elect, on an individual transaction basis, at the acquisition date, to measure non-controlling interests either at fair value (full goodwill) or at the share in the fair value of the identifiable net assets of the company acquired (partial goodwill).

Pursuant to IFRS, goodwill is not amortized but is subject to impairment tests performed annually or more frequently where there is evidence calling into question the net carrying amount recorded in assets in the Statement of Financial Position.

Where the terms and conditions of a business combination are advantageous, negative goodwill arises. The corresponding profit is recognized in net income at the acquisition date.

Acquisition-related costs are expensed in the period in which the costs are incurred and the services received.

Pursuant to the provisions of IFRS 3 revised, the Group may finalize the recognition of the business combination during the measurement period. This period ends when all the necessary information has been obtained and no later than one year after the acquisition date.



ASSETS/LIABILITIES CLASSIFIED AS HELD FOR SALE, DISCONTINUED OPERATIONS

IFRS 5, Non-Current Assets Held for Sale and Discontinued Operations, sets out the accounting treatment applicable to assets held for sale and presentation and disclosure requirements for discontinued operations.

The standard notably requires the separate presentation of assets held for sale in the Consolidated Statement of Financial Position at the lower of net carrying amount and fair value less costs to sell, where the criteria set-out in the standard are satisfied.

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

In addition, the standard requires the separate presentation in the Consolidated Income Statement of the results of discontinued operations for all comparative periods on a retrospective basis.

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 coordinated plan to dispose of a separate major line of business or major geographical area of operations or;
- is a subsidiary acquired exclusively with a view to resale.

3.2 Changes in Group structure

MAIN ACQUISITIONS

- Acquisition of Levice (Slovakia)

On February 22, 2019, Veolia Slovenska acquired the entire share capital of Levice, a specialist in the production of heat from gas and cogeneration in Slovakia, for a consideration of €71 million, equal to the value of the shares plus acquired debt.

- Acquisition of Renascimento (Portugal)

On January 30, 2019, the Group acquired Renascimento, a waste processing and recycling company in Portugal, for a consideration of €39 million, equal to the value of the shares plus acquired debt.

- Acquisition of Stericycle (Chili)

On December 12, 2019, Veolia Holding Chili acquired 100% Stericycle Chili, a specialist in medical waste in Chili for a consideration of €27.2 million.

In year 2019 newly consolidated companies in the Group portfolio has contributed for €341.6 million of the consolidated turnover, €9.6 million of the Net result and contributed for €69.2 million to cash position.

MAIN DIVESTITURES

■ Divestiture of Transdev Group

On January 9, 2019, Veolia Environnement closed the sale of its residual stake in Transdev Group to the German Group, Rethmann, for a consideration net of disposal costs of €334 million, generating a capital gain of € 33 million and marking the end of its withdrawal from the Transport business.

■ Divestiture of Foschan (China)

As part of its rotation policy, the Group sold its entire stake in Foschan (a landfill facility) through its subsidiary Veolia Environmental Services China Ltd during the first quarter for a consideration net of disposal costs of €49 million, generating a capital gain of €37 million.

■ Divestiture of district energy assets in the United States

On July 31, 2019, the Group, through its subsidiary, Veolia Energy North America Holdings, Inc, sold its district energy assets in the United States to Antin Infrastructure Partners. The portfolio, composed of steam, hot and chilled water and electricity production plants, including cogeneration, and 13 networks in ten U.S. cities, was sold for a consideration of \$1.25 billion, generating a capital gain, net of tax and disposal costs, of €170 million.

OTHER OPERATIONS

■ Gabon

On February 18, 2019, Gabon and Veolia Africa signed a settlement agreement providing for the transfer of 51% of SEEG shares held by Veolia Africa to the Société de Patrimoine du Service public de l'eau potable, de l'énergie électrique et de l'assainissement, a company owned by Gabon, for a price of €45 million. Subject to the fulfillment of conditions precedent and the signature of the protocol by the SEEG, Gabon and the Group shall request the discontinuance of the pending proceeding before the ICSID and shall mutually and definitively release all claims and actions arising from the concession agreement terminated by Gabon. On March 29, 2019, the ICSID noted the end of the arbitration proceeding between the Group and Gabon, enabling the implementation of the settlement agreement. A down payment of €4.5 million was made to Veolia Africa upon the signing of the settlement agreement. The outstanding balance was divided into six monthly installments, with the last payment due in October 2019.

As of December 31, 2019, the Group has recognized the compensation in full in net income from discontinued operations.

■ Lithuania

Activities in Lithuania were recorded in discontinued operations (Vilnius contract) and activities held for sale (Litesko contract) as of December 31, 2018. Recent discussions during the first quarter of 2019 were unable to agree to a process for the divestiture of these Group activities.

Accordingly, the Litesko assets and liabilities and the Vilnius and Litesko income statements were transferred to continuing operations for all the periods presented.

■ Discontinuation of EPC activities

Faced with the erosion of margins and the slowdown in its EPC (Engineering, Procurement and Construction) business, Veolia Water Technologies (VWT) had been reflecting on its activities for several years, leading it to reorient its development strategy in the areas of Technologies and Services and thus reduce its exposure to the "historic" construction business.

At the beginning of 2019, VWT has decided to accelerate its transformation by discontinuing the EPC activity in all geographies in aid of so-called EP contracts (Engineering/Design and Procurement excluding civil engineering or electrical and mechanical assembly).

In practice, the discontinuation of this EPC activity required a long process of detailed review of the terms and conditions of the exit from each of the existing contracts (including the assessment of completion guarantees) in order to best manage the end of the activities and minimize the Group's financial exposure. To this end, a specific Business Unit was created with its own management and resources. The contract review process was finalized in the last quarter of 2019.

Given the characteristics of this EPC exit plan, the Group considered the specific BU as meeting the criteria of IFRS 5 on discontinued operations and recognized a result of - €145.2 million presented on the line "income from discontinued operations". EPC 2018 results being non-significant with respect to continuing activities, the income statement has not been represented for comparability purposes.

3.3 Assets classified as held for sale, discontinued operations and divestitures

3.3.1 Assets and liabilities classified as held for sale

Assets classified as held for sale and Liabilities directly associated with assets classified as held for sale are presented separately in the Group Consolidated Statement of Financial Position as follows:

(€ million)	As of December 31, 2018 represented	As of December 31, 2019
Assets classified as held for sale	341.8	33.3
Liabilities directly associated with assets classified as held for sale	19.1	18.3

As of December 31, 2019, assets classified as held for sale and Liabilities directly associated with assets classified as held for sale break down by operating segment as follows:

(€ million)	France	Europe excluding France	Rest of the World	Global businesses	Other	Total
Assets	-	-	-	-	-	-
Non-current assets	-	25.9	-	-	-	25.9
Current assets	-	4.4	-	-	-	4.4
Cash and cash equivalents	-	3.0	-	-	-	3.0
ASSETS CLASSIFIED AS HELD FOR SALE	-	33.3	-	-	-	33.3
Liabilities	-	-	-	-	-	-
Non-current liabilities	-	11.6	-	-	-	11.6
Current liabilities	-	6.7	-	-	-	6.7
LIABILITIES DIRECTLY ASSOCIATED WITH ASSETS CLASSIFIED AS HELD FOR SALE	-	18.3	-	-	-	18.3

They consist of the assets and liabilities of a German subsidiary and its subsidiary consolidated at 100% classified in Assets classified as held for sale and Liabilities directly associated with assets classified as held for sale following the exercise of a call option by its partner.

As of December 31, 2018, Assets classified as held for sale and Liabilities directly associated with assets classified as held for sale, break down by operating segment as follows:

(€ million)	France	Europe excluding France	Rest of the World	Global businesses	Other (*)	Total
Assets	-	-	-	-	-	-
Non-current assets	-	20.9	-	-	304.0	324.9
Current assets	-	15.1	-	-	-	15.1
Cash and cash equivalents	-	1.8	-	-	-	1.8
ASSETS CLASSIFIED AS HELD FOR SALE	-	37.8	-	-	304.0	341.8
Liabilities	-	-	-	-	-	-
Non-current liabilities	-	5.1	-	-	-	5.1
Current liabilities	-	14.0	-	-	-	14.0
LIABILITIES DIRECTLY ASSOCIATED WITH ASSETS CLASSIFIED AS HELD FOR SALE	-	19.1	-	-	-	19.1

(*) Transdev Group

3.3.2 Discontinued Operations

In the Consolidated Income Statement presented for comparative purposes, the net income (loss) of operations divested or in the course of divestiture was reclassified to "Net income (loss) from discontinued operations".

In 2019, discontinued operations concern VWT's EPC (Engineering, Procurement, Construction) business, discontinued in all regions, in the amount of -€145.2 million and net income in Gabon of €33.3 million (see Note 3.2).

3.4 Off-balance sheet commitments relating to the consolidation scope

3.4.1 Commitments given

Off-balance sheet commitments given break down as follows:

(€ million)	As of December 31, 2018 represented	As of December 31, 2019	Maturing in		
			Less than 1 year	1 to 5 years	More than 5 years
Vendor warranties	590.7	599.3	48.1	66.8	484.4
Securities purchase commitments	186.7	296.0	257.8	38.1	0.1
Sale commitments	0.3	0.3	0.3	-	-
Other commitments relating to the consolidated scope	23.0	0.5	-	-	0.5
TOTAL COMMITMENTS RELATING TO THE CONSOLIDATED SCOPE	800.7	896.1	306.2	104.9	485.0



Vendor warranties primarily comprise:

- warranties given on the divestiture of the investment in Berlin Water in the amount of €484.0 million;
- warranties given on the divestiture in 2004 of Water activities in the United States in the amount of €66.8 million.

No warranty has been given on the divestiture of district energy assets in the United States, in 2019.

Securities purchase commitments concern current acquisition processes and notably the takeover of Alcoa USA Corporation's hazardous waste treatment site in Gum Springs, Arkansas (United States). The transaction has been finalized for a consideration of €223.3 million (see also note 14).

Agreements with EDF: Further to the completion of the redistribution transaction on July 25, 2014, Veolia Environnement granted EDF a call option covering its Dalkia International, renamed Veolia Energie International, shares exercisable should an EDF competitor take control of this company. Likewise, EDF granted Veolia Environnement a call option covering all of its Dalkia France shares, exercisable should a Veolia Environnement competitor take control. This call option is not included in the above table. This 5-years call option expired on July 25, 2019.

3.4.2 Commitments received

Commitments received relating to the consolidated scope total €293.9 million as of December 31, 2019, compared with €248.4 million as of December 31, 2018 represented.

NOTE 4

REPORTING BY OPERATING SEGMENT

The operating segments are components of the Group that engage in activities and whose operating results are reviewed by the Group Chairman and Chief Executive Officer (Chief Operating Decision Maker) to make decisions about resources to be allocated to the segment and assess its performance. Information presented to the Chief Operating Decision Maker is taken from the Group internal reporting system.

Financial information by operating segment is prepared in accordance with the same rules used to prepare the Consolidated Financial Statements.

In accordance with the provisions of IFRS 8 on the identification of operating segments and after taking account of regrouping criteria, the following segments are presented:

- **France;**
- **Europe excluding France;**
- **Rest of the world;**

- **Global businesses;**
- **Other**, including the various Group holding companies.

The main financial aggregates, in Group share, are also presented for the Chinese concessions, in the Water operating segment.

The EBITDA indicator comprises the sum of all operating income and expenses received and paid (excluding restructuring costs, non-current impairment losses, renewal expenses and share acquisition and disposal costs) and principal payments on operating financial assets.

The main financial indicators by operating segment are as follows:

							Joint-ventures Data in Group share
2019							
(€ million)	France	Europe excluding France	Rest of the World	Global Businesses	Other	Total consolidated financial statements	Chinese Water concessions
Revenue	5,611.5	9,501.1	7,303.5	4,733.8	38.8	27,188.7	867.8
EBITDA	899.7	1,501.2	1,160.5	396.2	64.2	4,021.8	179.2
Operating income after share of net income (loss) of equity-accounted entities	139.9	654.0	589.2	129.6	-47.9	1,464.8	109.1
Industrial investments net of subsidies	-298.5	-559.5	-632.9	-164.2	-20.9	-1,676.0	-135.0

							Joint-ventures Data in Group share
2018 represented (1)							
(€ million)	France	Europe excluding France	Rest of the World	Global Businesses	Other	Total consolidated financial statements	Chinese Water concessions
Revenue	5,499.3	9,136.1	6,619.7	4,665.5	30.7	25,951.3	789.0
EBITDA	899.5	1,471.8	1,062.4	360.9	48.3	3,842.9	163.3
Operating income after share of net income (loss) of equity-accounted entities	90.8	725.0	596.0	60.8	-13.3	1,459.3	96.0
Industrial investments net of subsidies	-306.4	-501.7	-518.1	-138.1	-19.4	-1,483.7	-103.4

(1) 2018 adjustments concern the application of IFRS 16 and the inclusion of the Lithuania accounts presented in discontinued operations in 2018

Assets and liabilities break down by operating segment as follows:

Joint
ventures
data in
Group share

As of December 31, 2019

Assets by operating segment (€ million)	France	Europe excluding France	Rest of the World	Global Businesses	Other	Total consolidated financial statements	Chinese Water concessions
Goodwill, net	1,233.5	2,333.6	799.9	757.7	3.3	5,128.0	255.1
Intangible assets and Property, Plant and equipment, net	2,012.3	6,724.2	4,171.6	1,082.4	243.9	14,234.4	1,851.8
Operating financial assets	183.6	919.3	404.4	9.9	-	1,517.2	4.7
Working capital assets, including DTA	2,811.7	3,037.5	2,697.8	2,609.5	-69.9	11,086.6	253.9
Investments in joint ventures	3.8	22.3	1,439.1	31.8	0.7	1,497.7	-
Investments in associates	0.6	181.9	117.4	79.4	3.2	382.5	57.3
Total segment assets	6,245.5	13,218.8	9,630.2	4,570.7	181.2	33,846.4	2,422.8
Other unallocated assets	-	-	-	-	7,172.6	7,172.6	-716.0
TOTAL ASSETS	-	-	-	-	-	41,019.0	1,706.8

As of December 31, 2018
represented

Joint-
ventures
Data in
Group share

Assets by operating segment (€ million)	France	Europe excluding France	Rest of the World	Global Businesses	Other	Total consolidated financial statements	Chinese Water concessions
Goodwill, net	1,241.7	2,240.2	875.5	747.3	3.0	5,107.7	260.8
Intangible assets and Property, Plant and equipment, net	2,114.0	6,409.3	4,299.1	1,031.5	285.0	14,138.9	1,936.2
Operating financial assets	122.1	919.4	433.4	11.5	-	1,486.4	-
Working capital assets, including DTA	2,833.4	2,748.9	2,476.5	2,664.6	148.0	10,871.5	268.9
Investments in joint ventures	5.0	14.6	1,459.1	31.7	0.7	1,511.1	-
Investments in associates	0.3	179.8	110.3	77.0	2.9	370.2	12.3
Total segment assets	6,316.5	12,512.2	9,653.9	4,563.6	439.6	33,485.7	2,478.2
Other unallocated assets	-	-	-	-	5,808.5	5,808.5	-702.4
TOTAL ASSETS	-	-	-	-	-	39,294.2	1,775.8

Joint-
ventures
Data in
Group share

As of December 31, 2019

Liabilities by operating segment (€ million)	France	Europe excluding France	Rest of the World	Global Businesses	Other	Total consolidated financial statements	Chinese Water concessions
Concession liabilities	76.6	1,454.3	18.9	0.2	-	1,550.0	30.0
Provisions for contingencies and losses	633.6	573.5	388.2	446.5	345.9	2,387.7	28.7
IFRS 16 liabilities	351.8	568.2	420.0	389.1	154.5	1,883.6	30.7
Working capital liabilities, including DTL	3,733.8	3,182.3	2,746.2	2,624.1	451.6	12,738.0	641.3
Total segment liabilities	4,795.8	5,778.3	3,573.3	3,459.9	952.0	18,559.3	730.7
Other unallocated liabilities	-	-	-	-	22,459.7	22,459.7	976.1
TOTAL LIABILITIES	-	-	-	-	-	41,019.0	1,706.8

As of December 31, 2018
represented (*)

Liabilities by operating segment (€ million)	France	Europe excluding France	Rest of the World	Global Businesses	Other	Total consolidated financial statements	Chinese Water concessions
Concession liabilities	71.6	1,375.3	21.3	0.1	0.1	1,468.4	31.2
Provisions for contingencies and losses	620.5	564.0	409.9	421.6	279.8	2,295.8	28.7
IFRS 16 liabilities	401.0	539.8	472.4	382.3	185.7	1,981.2	33.6
Working capital liabilities, including DTL	3,649.4	2,833.4	2,553.7	2,462.1	543.4	12,042.0	769.7
Total segment liabilities	4,742.5	5,312.5	3,457.3	3,266.1	1,009.0	17,787.4	863.2
Other unallocated liabilities	-	-	-	-	21,506.8	21,506.8	912.6
TOTAL LIABILITIES	-	-	-	-	-	39,294.2	1,775.8

(*) 2018 adjustments concern the application of IFRS 16 (see Note 1.2.2 - New standards and interpretations) and the inclusion of Lithuania presented in discontinued operations in 2018.

In application of IFRS 8.33, the revenue by destination geography is analyzed as follows:

(in € millions)	2018 represented	% of 2018 revenue	2019	% of 2019 revenue
Revenue	25,951.3	100.0%	27,188.7	100.0%
France	7,904.4	30.5%	8,221.3	30.2%
United Kingdom	2,183.9	8.4%	2,264.5	8.3%
United States	2,121.0	8.2%	2,226.1	8.2%
Germany	1,939.1	7.5%	1,966.2	7.2%
Czech Republik	1,122.8	4.3%	1,155.4	4.2%
Poland	1,067.6	4.1%	1,095.3	4.0%
Australia	1,032.4	4.0%	1,059.7	3.9%
China	811.9	3.1%	947.2	3.5%
Italy	726.9	2.8%	788.7	2.9%
Morocco	701.6	2.7%	731.0	2.7%
Japan	484.8	1.9%	568.0	2.1%
Other < 500 €M	5,854.9	22.5%	6,165.3	22.8%

Therefore, Revenue realized by destination in France may not be compared with the one presented for the operating segment "France".

The EBITDA indicator reconciles with the operating cash flow, for fiscal years 2019 and 2018, as follows:

(€ million)		2018 represented (1)	2019
Operating cash flow before changes in working capital	(A)	3,122.9	3,255.1
o/w Operating cash flow from financing activities	(B)	-22.8	-34.1
o/w Adjusted operating cash flow	(C) = (A) - (B)	3,145.7	3,289.2
Less :	(D)	-	-
Renewal expenses		279.8	280.3
Restructuring costs*		205.3	109.9
Share acquisition and disposal costs		19.5	90.7
Other		57.4	89.9
Plus :	(E)	-	-
Principal payments on operating financial assets		135.1	161.8
EBITDA	(C) + (D) + (E)	3,842.8	4,021.8

(*) 2019 restructuring costs mainly concern the VWT transformation plan in the amount of -€33.7 million, the France Water transformation plan in the amount of -€14.8 million and the France RVD transformation plan in the amount of -13.9 million. 2018 restructuring costs mainly concern France Water in the amount of -84.5 million, VWT in the amount of -€52.3 million and SADE in the amount of -€15.6 million.

(1) 2018 adjustments concern the application of IFRS 16 presented on the cash-flow line and the inclusion of the Lithuania accounts presented in discontinued operations.

NOTE 5 OPERATING ACTIVITIES

The main environmental services carried out by Veolia in its business lines are:

- Water: drinking water treatment and distribution, wastewater treatment and the sale of water treatment equipment, technologies and facilities;
- Waste: waste collection, product recovery and waste-to-energy processing (including the sale of recycled products), dismantling and hazardous waste processing;
- Energy: heating and cooling networks, thermal and multi-technical services, industrial utilities, installation and maintenance of production equipment, and integration services for the comprehensive management of buildings.

Environmental services also include the design, construction and, where applicable, funding of necessary facilities to supply such services which are provided to industrial and service sector companies, public authorities and private individuals.

The range of business models used by the Group results in a variety of contractual forms specific to each business and adapted to local jurisdiction constraints and the nature and needs of customers (public or private).

The Group primarily conducts its activities under concession, construction (non-concession), lease and operation and maintenance contracts.



Concession arrangements (IFRIC 12)

In the conduct of its activities, Veolia provides collective general interest services (distribution of drinking water and heating, household waste collection and/or treatment, etc.). These services are generally managed by Veolia under contracts entered into at the request of public sector bodies, which retain control over these collective services.

Concession arrangements involve the transfer of operating rights for a limited period, under the control of the local authority, using dedicated facilities built by Veolia, or made available to it for or without consideration:

- these contracts define "public service obligations" in return for remuneration. The remuneration is based on operating conditions, continuity of service, price rules and obligations with respect to the maintenance/replacement of installations. The contract determines the conditions for the transfer of installations to the local authority or a successor at its term;
- Veolia can, in certain cases, be responsible for a given service as it holds the service support network (water/heat distribution network, wastewater treatment network). Such situations are the result of full or partial privatizations. Provisions impose public service obligations and the means by which the local authority may recover control of the concession holder.

These contracts generally include price review clauses. These clauses are mainly based on cost trends, inflation, changes in tax and/or other legislation and occasionally on changes in volumes and/or the occurrence of specific events changing the profitability of the contract.

In addition, the Group generally assumes a contractual obligation to maintain and repair facilities managed under public service contracts.

The nature and extent of the Group's rights and obligations under these different contracts differ according to the public services rendered by the different Group businesses: Water, Waste, Energy.

WATER

In France, these services are primarily rendered under public service delegation "affermage" contracts with a term of 8 to 20 years. They can use specific assets, such as distribution or wastewater treatment networks and drinking water or wastewater treatment plants, which are generally provided by the concession grantor and returned to it at the end of the contract.

Abroad, Veolia renders its services under contracts which reflect local legislation, the economic situation of the country and the investment needs of each partner. These contracts generally have a term of between 7 and 40 years. Contracts can also be entered into with public entities in which Veolia purchased an interest on their partial privatization. The profitability of these contracts is not fundamentally different from other contracts, but operations are based on a partnership agreement with the local authority.

WASTE

Both in France and abroad, the main concession arrangements entered into by Veolia concern the treatment and recovery of waste in sorting units, landfills and incineration plants. These contracts have an average term of 10 to 30 years.

ENERGY

The main contracts concern the management of heating and air-conditioning networks under urban concessions or on behalf of local authorities.

In Eastern Europe, Veolia provides services under mixed partial privatizations or through public-private partnerships with public authorities responsible for the production and distribution of thermal energy.

The characteristics of these contracts vary significantly depending on the country and activities concerned.

“Financial asset model”

The Group applies the financial asset model for the accounting recognition of these concession arrangements, independently of service or infrastructure use by customers, when the concession grantor contractually guarantees the payment of amounts specified or determined in the contract or the shortfall, if any, between amounts received from users of the public service and amounts specified or determined in the contract.

Financial assets resulting from the application of IFRIC 12 are recorded in the Consolidated Statement of Financial Position under the heading “Operating financial assets” and recognized at amortized cost.

Unless otherwise indicated in the contract, the effective interest rate is equal to the weighted average cost of capital of the entities carrying the assets concerned.

Cash flows relating to these operating financial assets are included in Net cash from (used in) investing activities in the Consolidated Cash Flow Statement.

Pursuant to IFRS 9, an impairment loss is recognized if the carrying amount of these assets exceeds the present value of future cash flows discounted at the initial EIR.

Revenue associated with this financial model includes:

- revenue recorded on a completion basis, in the case of construction operating financial assets (in accordance with IFRS 15);
- the remuneration of the operating financial asset recorded in Revenue from operating financial assets (excluding principal payments);
- service remuneration.

“Intangible asset model”

The intangible asset model applies when the Group is paid by users or when the concession grantor has not provided a contractual guarantee in respect of the recoverable amount, regardless of service or infrastructure use by customers. The intangible asset corresponds to the right granted by the concession grantor to the operator to charge users of the public service in remuneration of concession services provided by the operator under the concession arrangement.

Intangible assets resulting from the application of IFRIC 12 are recorded in the Consolidated Statement of Financial Position under the heading “Concession intangible assets”, as described in Note 7.2.1, and generally amortized on a straight-line basis over the term of the agreement.

Cash outflows, that is disbursements, relating to the construction of infrastructures under concession arrangements accounted using the “intangible asset model” are presented in Net cash from (used in) investing activities in the Consolidated Cash Flow Statement, while cash inflows are presented in Net cash from operating activities.



Under the intangible asset model, Revenue includes:

- revenue recorded on a completion basis for assets and infrastructure under construction (in accordance with IFRS 15);
- service remuneration

“Mixed or bifurcation model”

The choice of the financial asset or intangible asset model depends on the existence, or not, of payment guarantees granted by the concession grantor, independently of service or infrastructure use by customers.

However, certain contracts may include a payment commitment on the part of the concession grantor covering only part of the investment, with the remaining balance covered by the remuneration from services charged to users.

Where this is the case, the investment amount guaranteed by the concession grantor is recognized under the financial asset model and the residual balance is recognized under the intangible asset model.

Recognition of concession arrangements where existing infrastructures are made available to the Group by the concession authority in return for payment of fees

On the signature of certain concession arrangements, the infrastructures necessary to the operation of the concession already exist and are owned by the delegating authority. In such cases, the infrastructures are generally made available to the concession holder for the term of the concession arrangement in return for payments to the delegating authority for the right to use these infrastructures under the concession.

In July 2016, the IFRS Interpretations Committee clarified the appropriate accounting treatment when the concession holder is required to make fixed payments to the delegating authority for the provision of pre-existing infrastructure.

These fixed payments give rise to:

- the recognition of a liability equal to the present value of payments over the term of the concession arrangement;
- offset by the recognition of an intangible asset, where the concession arrangement is recognized using the intangible asset model, representing the right to charge users of the public service.

Payments satisfying this definition within the Group mainly concern concession arrangements recognized using the intangible asset model in Central Europe.

Regulated activities

Veolia provides drinking water and heating production and distribution services in certain legal jurisdictions where the public authorities have performed privatizations. Accordingly, Veolia owns the production and/or distribution assets but remains subject to pricing regulations imposed by public authorities.

This is particularly the case in Eastern Europe where Veolia exercises this activity under mixed partial privatizations or public service management agreements between local subsidiaries and the public authorities in charge of the production and distribution of thermal energy.

Revenue from these activities is recognized in accordance with IFRS 15.

Construction contracts

A construction contract is a contract specifically negotiated for the construction of an asset or a combination of assets (complex sections of installations, equipment) that are closely interrelated or interdependent in terms of their design, technology and function or their ultimate purpose.

This type of contract is often used for design and builds contracts for infrastructure necessary for water treatment/distribution and wastewater treatment activities. These contracts are entered into with local authorities or private partners for the construction of infrastructures. They are generally fixed-price contracts.

The Group's construction revenues are mainly recognized on a completion basis.

The percentage of completion is determined by comparing costs incurred at the period end with total estimated costs under the contract. Costs incurred comprise costs directly attributable to the contract and borrowing costs incurred up to completion of the work. However, prospection costs, costs incurred prior to contract signature, and administrative and selling costs are expensed in the period incurred and do not therefore contribute to contract completion.

Where total contract costs exceed total contract revenue, the Group recognizes a loss to completion as an expense of the period, irrespective of the stage of completion and based on a best estimate of forecast results including, where appropriate, rights to additional income or compensation, where they are probable and can be determined reliably. Provisions for losses to completion are recorded as liabilities in the Consolidated Statement of Financial Position.

The amount of costs incurred, plus profits and less losses recognized and intermediary billings is determined on an individual contract basis. Where positive, this amount is recognized in assets in "Amounts due from customers for construction contract work" (in "Other operating receivables" as a contract asset). Where negative, it is recognized in liabilities in "Amounts due to customers for construction contract work" (in "Other operating payables" as a contract liability). Any loss to completion is recognized immediately through a provision.

Partial payments received under construction contracts before the corresponding work has been performed, are recognized as liabilities in the Consolidated Statement of Financial Position under "Other operating payables".

Service contracts including an asset lease (formerly governed by IFRIC 4 and now subject to IFRS 16)

These contracts generally concern outsourcing services performed for industrial/private customers either under BOT (Build, Operate and Transfer) contracts, or incineration or cogeneration contracts under which, notably, demand or volume risk is, in substance, transferred to the prime contractor.

Services include the design, construction and financing of the construction of a specific asset/installation on behalf of the customer and the operation of the asset concerned.

These contracts are recognized in accordance with the principles set out in the new standard, IFRS 16 (see Note 5.4).

Accordingly, construction revenue is recognized in accordance with the percentage of completion method and, more generally, the principles set out in IFRS 15.

The service invoiced to the customer includes a component representing the operation of the specific asset/installation concerned and a second component representing the financing of the construction.

- revenue relating to the operation of the asset is recognized on delivery of the goods or performance of the service, in accordance with IFRS 15;



- the financing of construction work involves finance costs that are invoiced to the customer and recognized in Revenue, under the heading “Revenue from operating financial assets”. This interest is recognized in Revenue from the start of construction work and represents remuneration received by the builder/lender.

Operation and maintenance contracts

The services rendered by Veolia do not systematically require the construction or acquisition of new infrastructure and can be provided through a variety of contractual forms tailored to the objectives and choices of customers. These services may particularly take the form of contracts for the operation and/or maintenance of installations already owned by the customer or service contracts aimed at improving the performance of these installations.

Accordingly, Veolia operates waste-to-energy plants, water production and/or distribution installations and heating networks under this type of contract recognized in accordance with IFRS 15.

5.1 Revenue

Group Revenue is recognized for the amount the Group expects to receive in consideration for the transfer of control of goods and services.

The following table presents the revenue recognition method, rate and unit for the main environmental services provided by the Group:

Environmental service	Contract					Revenue		
	Concession	Regulated activity	Construction	Services including an asset lease	Operation	Revenue recognition method	Revenue recognition rate	Revenue measurement unit
Waste processing, water distribution, network operation, thermal services	✓	✓		✓	✓	Progressively	When the customer receives the benefit of the service	m3 of water, metric ton of waste processed, Gwh, etc.
Sale of equipment, sale of recycled products	✓	✓		✓	✓	At a point in time	On physical delivery of the goods	Quantity sold
Design and build of infrastructures	✓		✓	✓		Progressively	As the customer obtains control of the asset being built	Completion basis

Infrastructure maintenance and renewal services

Installation maintenance and renewal services rarely represent a separate performance obligation. Nonetheless, a separate performance obligation may be identified in respect of maintenance services in concession arrangements recognized using the financial asset model or operating contracts, depending on the obligations contained in the contracts and the related remuneration terms.

Services on behalf of third parties

Few of the Group's activities are concerned by this provision and primarily combined energy purchase and distribution services.

For this type of contract, the Group determines whether it is acting on its own behalf (principal: recognition of gross revenue) or on behalf of a third party (agent: recognition of the margin), by analyzing in particular whether the Group has primary responsibility for performance of the service and whether it can freely set the price paid by the end customer.

Variable compensation

Variable consideration provided in contracts with customers can take several forms: rebates, discounts, penalties, incentives, performance bonuses. They are assessed on contract inception to determine the revenue amount to be recognized, applying either the expected value method or the most probable amount method.

Revenue by business

As for other Income Statement headings, Revenue does not include amounts relating to discontinued operations in accordance with IFRS 5, Non-Current Assets Held for Sale and Discontinued Operations. The results of these activities are presented in a separate line, "Net income (loss) from discontinued operations", for fiscal year 2019 and fiscal year 2018 presented for comparison purposes (see Note 3.3).

Revenue breaks down as follows:

(€ million)	2018 represented	2019
Water	10,894.1	11,142.1
Waste	9,598.6	10,166.7
Energy	5,458.6	5,879.9
Group	25,951.3	27,188.7

A breakdown of revenue by operating segment and region is presented in Note 4.

Backlog

The backlog, as required by IFRS 15, is equal to firm Revenue as contracted with customers, where the services have not yet been performed, or are only partially performed, at the reporting date.

After taking account of the exceptions provided in the standard (contracts with a term of less than one year, concession arrangements and service agreements, etc.), the backlog therefore primarily consists of Revenue from VWT construction contracts, with an average contractual period of 2 to 3 years.

As of December 31, 2019, expected revenue is as follows:

(in € million)	Total	2020	2021 and beyond
Backlog	1,805.0	1,040.3	764.7

5.2 Operating income

Operating income breaks down as follows:

(€ million)	2018 represented	2019
Revenue	25,951.3	27,188.7
Cost of sales	-21,663.4	-22,827.7
o/w :		
• Renewal expenses	-279.8	-280.3
Selling costs	-610.9	-610.6
General and administrative expenses	-2,149.4	-2,157.4
Other operating revenue and expenses	-183.9	-258.0
o/w :		
• Restructuring costs	-120.5	-126.9
• Employee costs - share based payments	-17.4	-21.4
• Other charges, impairment losses and net provisions non-current	-36.0	-96.1
• Share acquisition costs	-10.8	-12.1
Operating income before share of net income (loss) of equity-accounted entities	1,343.7	1,335.0
Share of net income (loss) of equity-accounted entities	115.6	129.8
Operating income after share of net income (loss) of equity-accounted entities	1,459.3	1,464.8

5.2.1 Breakdown of provisions and impairment losses on non-current assets

The carrying amount of non-financial assets, other than inventory and deferred tax assets is reviewed at each period end in order to assess the existence of any indication of loss in value (non-performance of a significant long-term contract under the terms laid down in the contract, technical operating issues, and counterparty default for operating financial assets). Where such indication exists, the recoverable amount of the asset or group of assets is estimated.

The need to recognize impairment is assessed by comparing the net carrying amount of these assets with their recoverable amount. Unless there are future prospects for the sale of these assets, the recoverable amount corresponds to their value in use, generally equal to the present value of the future cash flows expected to be derived

from the asset or group of assets, taking account of any residual value. The value in use of these assets is determined based on assumptions consistent with those adopted for impairment testing of goodwill and other intangible assets with an indefinite useful life. See Note 7.1.2.

Goodwill and other assets with an indefinite useful life are subject to systematic annual impairment tests following the update of the long-term plan and more frequent tests where there is an indication of loss in value.

Where the resulting recoverable amount is less than the net carrying amount of the asset or group of assets, an impairment is recorded.

Other expenses, impairment losses and charges to non-current provisions in **2019** break down as follows:

- impairment losses on intangible assets, property, plant and equipment and operating financial assets of -€20.4 million, recognized particularly in the Rest of the World in the amount of -€26.2 million.
- other charges and non-current provisions of -€75.7 million, particularly in the following operating segments:
 - Europe excluding France, in the amount of -€16.3 million;
 - the Rest of the world, in the amount of -€58.4 million.

Other expenses, impairment losses and charges to non-current provisions in **2018** break down as follows:

- Impairment losses on intangible assets, property, plant and equipment and operating financial assets of +€27.1 million, recognized particularly in the following operating segments:
 - France, in the amount of -€29.8 million;
 - Europe excluding France, in the amount of +€17.7 million;
 - the Rest of the world, in the amount of +€31.7 million.
- Other charges of -€63.1 million, particularly in the following operating segments:
 - France, in the amount of -€4.8 million;
 - Europe excluding France, in the amount of -€8.9 million;
 - Global businesses, in the amount of -€23.0 million;
 - the Rest of the world, in the amount of -€34.3 million.

More generally, operating depreciation, amortization, provisions and impairment losses included in operating income in **2019** break down as follows:

	2018 represented	2019		
(€ million)	Net	Charge	Reversal	Net
OPERATING DEPRECIATION, AMORTIZATION AND PROVISIONS, NET	-	-	-	-
Depreciation and amortization	-1 982,0	-2 060,8	-	-2 060,8
Property, Plant and equipment *	-968,7	-990,7	-	-990,7
Intangible assets	-608,7	-624,9	-	-624,9
Rights of use	-404,6	-445,2	-	-445,2
Impairment losses	14,1	-71,2	53,8	-17,4
Property, Plant and equipment	20,6	-39,8	48,6	8,8
Intangible assets and Operating financial assets	-6,5	-29,6	5,2	-24,4
Rights of use	-	-1,8	-	-1,8
Impairment losses and impact of disposals on goodwill and negative goodwill recognized in the consolidated income statement	0,9	-1,8	0,2	-1,6
Non-current and current operating provisions	132,0	-610,0	661,7	51,7
Non-current operating provisions	-159,8	-310,2	130,4	-179,8
Current operating provisions	291,8	-299,8	531,3	231,5
OPERATING DEPRECIATION, AMORTIZATION,PROVISIONS AND IMPAIRMENT LOSSES	-1 835,0	-2 743,8	715,7	-2 028,1

(*) Including investment grants

5.2.2 Restructuring costs

A restructuring is a program planned and controlled by Group management that significantly changes the scope of activity of the Group or the way in which this activity is managed. Accordingly, the following events can meet the definition of a restructuring: the sale or discontinuation of an activity branch, the closure of activity sites in a country or a region or the relocation of activities from one country to another or from one region to another; changes to the management structure such as the suppression of a management level; and fundamental reorganizations with a significant impact on the nature and focus of an activity.

(€ million)	2018 represented	2019
Restructuring costs	-205.3	-109.9
Net charges to restructuring provisions	84.8	-17.0
RESTRUCTURING COSTS	-120.5	-126.9

Restructuring costs recognized in operating income in 2019 mainly concern France Water in the amount of -€14.8 million, France RVD in the amount of -€15.8 million and VWT in the amount of -€40.0 million.

Restructuring costs recognized in operating income in 2018 mainly concern France Water in the amount of -€9.6 million, SADE in the amount of -€13.2 million and VWT in the amount of -€44.9 million.

5.2.3 Research and development costs

Research and developments costs total €55.6 million in **2019** and €54.2 million in 2018.

5.2.4 Joint ventures and associates

All equity-accounted companies, whether joint ventures or associates, represent an extension of the Group's businesses and are therefore allocated to the four operating segments.

(€ million)	2018 represented	2019
Share of net income (loss) of joint ventures	71.4	89.3
Share of net income (loss) of associates	44.2	40.5
Share of net income (loss) of equity-accounted entities	115.6	129.8

5.2.4.1 JOINT VENTURES

Movements in investments in joint ventures in **2019** breaks down as follows:

(€ million)	As of December 31, 2018 represented	Net income	Dividend distribution	Change in consolidation scope	Foreign exchange translation	Other mouvements	As of December 31, 2019
Joint ventures	1,511.1	89.3	-56.8	-62.6	17.1	-0.4	1,497.7

(€ million)	Share of Equity		Share of net income (loss)	
	December 31, 2018 represented	As of December 31, 2019	2018 represented	2019
Chinese Water concessions	1,346.3	1,335.2	55.1	63.4
Other joint ventures	164.8	162.5	16.3	25.9
TOTAL	1,511.1	1,497.7	71.4	89.3
Impact in the Consolidated Income Statement on Net income from continuing operations (a) + (b)			-	-
Share of net income (loss) of joint ventures (a)			71.4	89.3
Impairment losses recognized in other operating revenue and expenses (b)			-	-

Chinese Water concessions

As of December 31, 2019, the Chinese concessions comprise a combination of approximately twenty separate legal entities in which the Group holds interests of between 21% and 50%; the most significant concessions, in terms of revenue, are Shenzhen (25% interest) and Shanghai Pudong (50% interest).

Summarized financial information (at 100%) in respect of the Chinese concessions is set out below. This information reflects amounts presented in the joint ventures' financial statements prepared in accordance with IFRS, adjusted to reflect fair value adjustments performed on acquisition and adjustments recorded to comply with Group accounting principles, when applying the equity method.

	As of December 31, 2018 represented	As of December 31, 2019
Current assets	1,515.8	1,613.4
Non-current assets	5,793.3	6,176.4
TOTAL ASSETS	7,309.1	7,789.8
Equity attributable to owners of the Company	3,098.2	3,224.0
Equity attributable to non-controlling interests	400.9	424.3
Current liabilities	2,457.4	2,551.4
Non-current liabilities	1,352.6	1,590.1
TOTAL EQUITY AND LIABILITIES	7,309.1	7,789.8
The above amounts of assets and liabilities include the following:		
Cash and cash equivalents	805.2	806.5
Current financial liabilities (excluding trade and other payables and provisions)	813.3	814.4
Non-current financial liabilities (excluding trade and other payables and provisions)	728.1	950.0
INCOME STATEMENT	-	-
Revenue	2,336.9	2,517.9
Operating income	269.8	311.0
Net income (loss) from continuing operations	175.7	206.4
Post-tax net income (loss) from discontinued operations	-	-
Net income (loss) attributable to non-controlling interests	-26.2	-28.2
Net income (loss) attributable to owners of the Company at the Chinese Water concessions level	149.5	178.2
Net income (loss) for the year	175.7	206.4
Other comprehensive income for the year	-35.4	57.4
Total comprehensive income for the year	140.3	263.8
The above net income (loss) for the year includes the following :		
Depreciation and amortization	-177.2	-187.7
Interest income	11.3	13.5
Interest expense	-56.9	-62.2
Income tax (expense) income	-53.9	-62.5
DIVIDENDS	-	-
Dividends received from the joint venture	26.0	30.5

Reconciliation of the above summarized financial information on the Chinese concessions to the carrying amount of the interest in these joint ventures recognized in the consolidated financial statements:

<i>(€ million)</i>	As of December 31, 2018 represented	As of December 31, 2019
Net assets of the Chinese Water concession joint ventures	3,098.2	3,224.0
Proportion of the Group's ownership interest in the Chinese Water concession joint ventures - weighted-average rate	37.44%	36.35%
Goodwill	236.5	227.2
Other adjustments	-50.1	-64.0
Carrying amount of the Group's interest in the Chinese Water concession joint ventures	1,346.3	1,335.2

As the Chinese Water concessions represent approximately twenty individual concessions, the percentage interest indicated in the above reconciliation is a weighted-average rate of the contribution of each concession within the combination.

The evolution in the weighted average rate between 2018 and 2019 is due to a combination of two impacts:

- changes in scope tied to the Changzou and Tianjin CGE Water transactions;
- a change in the weightings of the contributions.

Accordingly, the "Other adjustments" line in the reconciliation of the summarized financial information on the Chinese Water concessions as a whole, to their carrying amount in the Consolidated Statement of Financial Position, represents the adjustment between the share in net assets obtained by applying the weighted average percentage interest for all Chinese Water concessions and the share in net assets recognized in the financial statements, calculated using the effective interest held in each of the Chinese Water concessions individually.

<i>(€ million)</i>	2018 represented	2019
Net income (loss) for the year of the Chinese Water concession joint ventures	149.5	178.2
Proportion of the Group's ownership interest in the Chinese Water concession joint ventures - weighted-average rate	37.44%	36.35%
Other	-0.9	-1.4
Group share of net income (loss) of the Chinese Water concession joint ventures	55.1	63.4

The recoverable amount of each Chinese Water concession joint venture is tested for impairment in accordance with the provisions set out in the standard. The long-term plans of the Chinese Water Concessions were extended to 2025, in order to identify standard flows for the calculation of the terminal value, as Water activities in China follow a specific economic model, with extremely long contract terms (between thirty and fifty years) and high investment flows during the initial contract years.

Given the models used and the timeframe adopted, the recoverable amounts determined are sensitive and closely monitored. They are based on a certain number of structuring assumptions such as price increases, volume trends, construction activity levels and margins and efficiency and productivity measures integrated in future cash flows, as well as on the macro-economic assumptions (discount and inflation rates) underlying the business plans.



Other joint ventures

The Group also holds interests in other joint ventures that are not individually material, with a total net carrying amount of €162.5 million as of December 31, 2019.

Unrecognized share of losses of joint ventures

As all joint ventures are partnerships in which the Group exercises joint control, the share of any losses is recognized in full at the year-end.

Transactions with joint ventures (related parties)

The Group grants loans to joint ventures. These loans are recorded in assets in the Group Consolidated Statement of Financial Position (see Note 8.1.2 “Other non-current and current financial assets”).

As of December 31, 2019 and 2018, current and non-current loans granted to all these entities totaled €159.5 million and €132.0 million, respectively. The loans were mainly granted to the Chinese Water concessions in the amount of €99.5 million and €77.1 million, respectively.

In addition, given the Group’s activities, operating flows between companies are generally limited to companies operating in the same country. As such, the level of operating transactions between the Group and equity-accounted companies is not material.

However, certain contractual agreements in the Group’s businesses, impose the existence of a holding company (generally equity-accounted) and companies carrying the operating contract (generally fully consolidated).

5.2.4.2 INVESTMENTS IN ASSOCIATES

Movements in investments in associates in **2019** breaks down as follows:

<i>(€ million)</i>	As of December 31, 2018 represented	Net income	Dividend distribution	Change in consolidation scope	Foreign exchange translation	Other movements	As of December 31, 2019
Investments in associates	370.2	40.5	-37.9	3.9	1.7	4.1	382.5

(€ million)	Share of equity		Share of net income(loss)	
	As of December 31, 2018 represented	As of December 31, 2019	2018 represented	2019
Fovarosí Csatomazási Művek	78.2	76.7	-0.2	0.8
Siciliacque	58.9	59.1	-	-
Wasserversorgung, in Mitteldeutschland mbH	37.6	38.0	0.2	0.3
Ajman Sewerage Co. Ltd	29.5	31.4	5.6	7.5
Other non-material associates (*)	166.0	177.3	38.6	31.9
TOTAL	370.2	382.5	44.2	40.5

Impacts on the Consolidated Income Statement

Share of net income (loss) of equity-accounted entities in continuing operations	44.2	40.5
Impairment losses recognized in other operating revenue and expenses (**)	-	-
Share of net income (loss) of other equity-accounted entities	-	-

(*) Associates with a value below € 15 million as of December 31, 2019.

(**) Impairment of goodwill pertaining to associates

5.3 Working capital

5.3.1 Working capital

Net working capital includes “operating” working capital (inventories, trade receivables, trade payables and other operating receivables and payables, tax receivables and payables other than current tax), “tax” working capital (current tax receivables and payables) and “investment” working capital (receivables and payables related to industrial investments/disposals).

In accordance with IAS 2, Inventories, inventories are stated at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

Commercial receivables and payables are recognized at nominal value, unless discounting at the market rate has a material impact. The Group applies the simplified approach to the impairment of commercial receivables, in accordance with the option available in IFRS 9. The Group uses a provision matrix that takes account of the business, geographic region and customer category in question. When preparing this matrix, the Group considered late payment and default rates observed in the past, as well as the macro-economic environment. The matrix is updated to reflect changes in economic factors.

Trade payables are recognized as liabilities at amortized cost in accordance with IAS 39 for accounting purposes. Short-term commercial payables without a declared interest rate are recognized at nominal value, unless discounting at the market rate has a material impact.

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 to the cash flows from the financial asset in a transaction under which substantially all the risks and rewards inherent to ownership of the financial asset are transferred. Any interest created or retained by the Group in a financial asset is recognized separately as an asset or liability.

Movements in net working capital during **2019** are as follows:

(€ million)	December 2018 represented	Change in business	Impairment losses	Changes in scope of consolidation	Foreign exchange translation	Other movements	As of December 31, 2019
Inventories and work-in-progress, net	818.0	74.2	-14.8	-0.2	4.9	-90.1	792.0
Operating receivables, net	9,010.1	97.2	-54.1	32.0	62.9	193.6	9,341.7
Operating payables	-10,999.4	-557.9	-	-36.3	-77.3	-82.7	-11,753.6
NET WORKING CAPITAL	-1,171.3	-386.5	-68.9	-4.5	-9.5	20.8	-1,619.9

Movements in each of these working capital categories in **2019** are as follows:

(€ million)	As of December 31, 2018 represented	Changes in business	Impairment losses	Change in consolidation scope	Foreign exchange translation	Transfers to Assets/liabilities classified as held for sale	Other movements	As of December 31, 2019
Inventories and work-in-progress, net	818.0	74.2	-14.8	-0.2	4.9	2.2	-92.3	792.0
Operating receivables (including tax receivables other than current tax) ⁽¹⁾	8,828.0	110.2	-55.1	36.4	63.0	8.7	186.2	9,177.4
Operating liabilities (including operating liabilities other than current tax)	-10,531.5	-407.6	-	-55.5	-74.3	-1.7	-78.0	-11,148.6
OPERATING WORKING CAPITAL ⁽²⁾	-885.5	-223.2	-69.9	-19.3	-6.4	9.2	15.9	-1,179.2
Tax receivables (current tax)	160.4	-39.9	-	2.4	-0.4	-	-1.1	121.4
Tax payables (current tax)	-157.6	-49.0	-	-4.5	-0.8	-2.7	-0.7	-215.3
TAX WORKING CAPITAL	2.8	-88.9	-	-2.1	-1.2	-2.7	-1.8	-93.9
Receivables on non-current assets disposals	21.7	26.9	1.0	-6.8	0.2	-	-0.1	42.9
Industrial investment payables	-310.3	-101.3	-	23.7	-2.1	-	0.3	-389.7
INVESTMENT WORKING CAPITAL	-288.6	-74.4	1.0	16.9	-1.9	-	0.2	-346.8
NET WORKING CAPITAL	-1,171.3	-386.5	-68.9	-4.5	-9.5	6.5	14.3	-1,619.9

(1) including the assets and liabilities of contracts described in note 5.6

(2) The change in working capital presented in the Consolidated Cash Flow Statement is equal to the sum of operating working capital changes in business activity and impairment losses on operating working capital presented above.

Movements in inventories during **2019** are as follows:

Stocks (€ million)	As of December 31, 2018 represent ed	Changes in business	Impair ment losses	Reversal of impairme nt losses	Change in consolidat ion scope	Foreign exchange translatio n	Transfers to Assets/liabilities classified as held for sale	Other move ments	As of December 31, 2019
Raw materials and supplies	586.6	41.7	-	-	-2.3	4.0	2.8	-0.4	632.4
Work-in- progress	187.5	14.6	-	-	1.8	0.7	-	-93.7	110.9
Other inventories ⁽¹⁾	103.8	17.9	-	-	1.7	0.8	0.4	-0.1	124.5
INVENTORIE S AND WORK-IN- PROGRESS, GROSS	877.9	74.2	-	-	1.2	5.5	3.2	-94.2	867.8
IMPAIRMEN T LOSSES ON INVENTORIE S AND WORK-IN- PROGRESS	-59.9	-	-44.3	29.5	-1.4	-0.6	-1.0	1.9	-75.8
INVENTORIE S AND WORK-IN- PROGRESS, NET	818.0	74.2	-44.3	29.5	-0.2	4.9	2.2	-92.3	792.0

(1) Including CO₂ inventories.

Inventories mainly concern the Europe excluding France operating segment in the amount of €363.7 million, the Global Businesses operating segment in the amount of €152.8 million and the Rest of the World operating segment in the amount of €165.7 million.

Movements in operating receivables during **2019** are as follows:

Operating receivables (€ million)	As of December 31, 2018 represented	Changes in business	Impairment losses ⁽¹⁾	Reversal of impairment losses ⁽¹⁾	Change in consolidation scope	Foreign exchange translation	Transfers to Assets/liabilities classified as held for sale	Other movements	As of December 31, 2019
Trade receivables	7,283.4	151.8	-	-	11.2	49.4	4.4	197.8	7,698.0
Impairment losses on trade receivables	-772.7	-	-193.1	138.6	-11.5	-6.1	-2.5	-1.2	-848.5
TRADE RECEIVABLE, NET ⁽²⁾	6,510.7	151.8	-193.1	138.6	-0.3	43.3	1.9	196.6	6,849.5
Contracts assets	603.6	2.6	-	-	18.2	13.3	-	-	637.7
Losses on contracts assets	-	-	-	-	-	-	-	-	-
Net contracts assets	603.6	2.6	-	-	18.2	13.3	-	-	637.7
Other current operating receivables	636.7	101.4	-	-	3.6	4.2	4.7	-15.4	735.2
Impairment losses on other current operating receivables	-74.3	-	-3.4	3.2	-3.5	-0.5	-0.1	4.3	-74.3
OTHER OPERATING RECEIVABLES, NET	562.4	101.4	-3.4	3.2	0.1	3.7	4.6	-11.1	660.9
Other receivables ⁽²⁾	235.4	-2.5	-	0.6	4.9	2.5	2.2	1.9	245.0
Tax receivables	1,098.0	-156.1	-	-	9.1	0.1	-	-2.5	948.6
OPERATING RECEIVABLES, NET	9,010.1	97.2	-196.5	142.4	32.0	62.9	8.7	184.9	9,341.7

(1) Impairment losses are recorded in operating income and included in the line "Changes in working capital" in the Consolidated Cash Flow Statement.

(2) Receivables recognized on a percentage of completion basis in respect of construction activities and prepayments.

Operating receivables held by the Group in countries considered high-risk by the IMF are not material in amount.

Movements in operating payables during **2019** are as follows:

Operating payables (€ million)	As of December 31, 2018 represented	Changes in business	Change in consolidation scope	Foreign exchange translation	Transfers to Assets/liabilities classified as held for sale	Other movements	As of December 31, 2019
Trade payables	4,748.2	270.7	34.7	36.4	-	-54.1	5,035.9
Other current operating liabilities	3,941.6	181.4	-25.8	21.4	1.8	114.5	4,234.9
Contracts liabilities ⁽¹⁾	963.1	50.2	18.1	7.2	-	13.6	1,052.2
Other liabilities ⁽²⁾	188.0	-3.0	0.2	8.0	-	-	193.2
Tax and employee-related liabilities	1,158.5	58.6	9.1	4.3	2.6	4.3	1,237.4
OPERATING PAYABLES	10,999.4	557.9	36.3	77.3	4.4	78.3	11,753.6

(1) Contract assets and liabilities described in note 5.6

(2) Primarily deferred income

5.3.2 Working capital management transactions

Veolia had several programs for the assignment of receivables through factoring, discounting and assignment by way of security, still in progress in 2019.

FACTORING

Under these programs, certain subsidiaries have agreed to assign, on a renewable basis, trade receivables by contractual subrogation or assignment of receivables (such as "Dailly" programs in France) without recourse against the risk of default by the debtor. The analysis of the risks and rewards as defined by IAS 39 led the Group to derecognize almost all the receivables assigned under these factoring programs. In addition, the transferor subsidiaries remain, in certain cases, responsible for invoicing and debt recovery, for which they receive remuneration but do not retain control.

Accordingly, receivables totaling €3,895.2 million were assigned under these programs in 2019, compared with €2,882.4 million in 2018. Receivables derecognized as of December 31, 2019 total €795.0 million, compared with €640.2 million as of December 31, 2018.

DISCOUNTING AND ASSIGNMENT BY WAY OF SECURITY

Under Public-Private partnerships, Veolia subsidiaries can assign the fraction of future payments guaranteed by public authorities / private customers (recognized in financial receivables pursuant to IFRIC 12 or IFRS 16) to the bodies funding the project, through discounting or assignment by way of security programs (such as Dailly programs in France). For the majority of partnerships concerned by these financial receivable assignments, the assignment agreements negotiated and the contractual clauses agreed between the stakeholders are sufficient to satisfy the derecognition criteria set out in IFRS 9. The residual risk retained by the companies (considered immaterial) is generally tied solely to late customer payment due to late/deferred invoicing of services by Group subsidiaries. Group subsidiaries are mandated by the financial institutions to manage the invoicing and recovery of the receivables covered by these programs. Veolia analyzed the management and recovery procedures falling to Group subsidiaries and concluded that these services did not constitute continuing involvement.



Two assignments by way of security performed in 2005 and 2006 in connection with the specific terms and conditions of finance lease agreements entered into by the Waste activities operate differently and do not permit the derecognition of the receivables assigned. The assignment terms provide for the provision of a joint surety by the subsidiaries and their partners to the assignee financial institutions.

Receivables of €45.5 million and finance lease obligations maturing in 2025 and 2026 of €58.8 million are recognized in Veolia's balance sheet as of December 31, 2019 in respect of these contracts (€52.4 million and €53.4 million, respectively, as of December 31, 2018).

In 2019, the Group also assigned tax credits totaling €98.9 million (Research tax credit), through discounting, compared with €148.7 million as of December 31, 2018. These receivables were derecognized in the Statement of Financial Position at the end of 2019.

5.4 Non-current and current operating financial assets

Operating financial assets comprise financial assets resulting from the application of IFRIC 12 on accounting for concession arrangements and from the application of IFRS 16 on accounting for leases.

Concession arrangements

Pursuant to IFRIC 12, when the operator has an unconditional right to receive cash or another financial asset from the grantor in remuneration for concession services, the financial asset model applies. In this context, the infrastructures managed under these contracts cannot be recorded in assets of the operator as property, plant and equipment, but are recorded as financial assets.

Investment grants received in respect of concession arrangements are generally definitively earned and, therefore, are not repayable. In accordance with the option offered by IAS 20, these grants are presented as a deduction from intangible assets or financial assets depending on the applicable model following an analysis of each concession arrangement (IFRIC 12). Under the financial asset model, investment grants are equated to a means of repaying the operating financial asset.

During the construction phase, a financial receivable is recognized in the Consolidated Statement of Financial Position and revenue is recognized in the Consolidated Income Statement, in accordance with the percentage of completion method laid down in IFRS 15 on construction contracts.

Financial receivables are initially measured at the lower of fair value and the sum of discounted future cash flows and subsequently recognized at amortized cost using the effective interest method, as, in accordance with IFRS 9, they represent the right to receive contractual cash flows and have the characteristics of a loan.

After a review of the contract and its financing, the implied interest rate on the financial receivable is notably based on either the Group financing rate and/or the borrowing rate associated with the contract.

Leases

IFRS 16 requires the identification of contractual terms and conditions of agreements which, without taking the legal form of a lease, convey a right to use a group of assets in return for payments included in the overall contract (right of use analyzed as a transfer of control of a group of assets during the contract term). A lease component is thereby

identified in these agreements, which is then analyzed and recognized in accordance with the criteria laid out in this standard.

The contract operator (Veolia) therefore becomes the lessor with respect to its customers. On contract signature, Veolia now determines whether the terms of the contract constitute a finance lease or an operating lease.

To this end, Veolia performs a comprehensive analysis to determine whether the lease transfers substantially all the risks and rewards inherent to ownership of the underlying asset to the customer (the lessee).

The following indicators in particular are considered when performing this analysis: (i) the lease transfers ownership of the asset to the customer by the end of the lease term, (ii) the lease term is for the major part of the economic life of the underlying asset, (iii) the present value of the lease payments amounts to at least substantially all of the fair value of the asset, or (iv) the asset is of such a specialized nature that only the customer can use it without major modifications.

If this analysis leads to the conclusion that the lease is a finance lease, Veolia does not recognize a tangible asset but an operating financial asset to reflect the corresponding financing. Breakdown of operating financial assets by operating segment:

	As of December 31,					
	Non-current		Current		Total	
	2018 represented	2019	2018 represented	2019	2018 represented	2019
(€ million)						
France	114.6	175.9	7.5	7.7	122.1	183.6
Europe excluding France	870.7	868.1	48.7	51.2	919.4	919.3
Rest of the World	392.6	378.7	40.8	25.7	433.4	404.4
Global businesses	9.2	8.5	2.3	1.4	11.5	9.9
Other	-	-	-	-	-	-
OPERATING FINANCIAL ASSETS	1,387.1	1,431.2	99.3	86.0	1,486.4	1,517.2
of which IFRIC 12 Operating financial assets	1,081.4	1,132.8	53.0	57.1	1,134.4	1,189.9
of which IFRIC 16 Operating financial assets	305.7	298.4	46.3	28.9	352.0	327.3

Movements in the net carrying amount of non-current and current operating financial assets during **2019** are as follows:

(€ million)	December 31, 2018 represente d	New operating financial assets (2)	Repayment s / disposals	Impairmen t losses (1)	Changes in consolidat ion scope	Foreign exchange translatio n	Non- current/ Current reclassific ation	Other movement s	As of December 31, 2019
NON-CURRENT AND CURRENT 112 OPERATING FINANCIAL ASSETS	1,134.4	130.4	-88.0	-1.2	-	14.7	-	-0.4	1,189.
NON-CURRENT AND CURRENT 116 OPERATING FINANCIAL ASSETS	352.0	46.8	-73.8	-	-2.2	1.1	-	3.4	327.
NON-CURRENT AND CURRENT OPERATING FINANCIAL ASSETS	1,486.4	177.2	-161.8	-1.2	-2.2	15.7	-	3.1	1,517.

(1) Impairment losses are recorded in operating income.

(2) The new operating financial assets in the cash flow statement correspond to those in the above table €177.9 million net of acquisition debt thus €0.7 million) as of December 31, 2019.

The principal **new** operating financial assets in 2019 mainly concern the increase in financial receivables for pre-existing contracts, in particular in the following operating segments:

- France, in the amount of €85.8 million, primarily following investments in the Troyes incineration plant of €30 million.
- Europe excluding France, in the amount of €52.4 million, primarily following investments in Germany under the Braunschweig contract of €24.2 million;
- the Rest of the World, in the amount of €37.7 million, primarily following investments by Veolia Energy North America to maintain the cogeneration plant in Virginia of €21.1 million.

The principal **repayments and disposals** of operating financial assets in 2019 concern the following operating segments:

- Europe excluding France, in the amount of -€67.6 million;
- the Rest of the World, in the amount of -€66.6 million;
- France, in the amount of -€24.5 million.

Foreign exchange translation gains and losses on current and non-current operating financial assets mainly concern movements in the pound sterling (+€15.8 million), the Chinese renminbi (+€1.9 million) and the Korean won (-€2.5 million) against the euro.

(€ million)	As of December 31, 2018 represented	New operating financial assets	Repay- ments / dispos- als	Impair- ment losses	Changes in consolid- ation scope	Foreign exchange translation	Non-current/ Current reclassification	Other movements	As of December 31, 2019
Gross	1 099,7	128,0	-2,7	-	-	13,8	-61,5	-25,0	1 152,3
Impairment losses	-18,3	-	-	-1,2	-	-	-	-	-19,5
NON-CURRENT I12 OPERATING FINANCIAL ASSETS	1 081,4	128,0	-2,7	-1,2	-	13,8	-61,5	-25,0	1 132,8
Gross	53,0	2,4	-85,3	-	-	0,9	61,5	24,6	57,1
Impairment losses	-	-	-	-	-	-	-	-	-
CURRENT I12 OPERATING FINANCIAL ASSETS	53,0	2,4	-85,3	-	-	0,9	61,5	24,6	57,1
NON-CURRENT AND CURRENT I12 OPERATING FINANCIAL ASSETS	1 134,4	130,4	-88,0	-1,2	-	14,7	-	-0,4	1 189,9

(€ million)	As of December 31, 2018 represented	New operating financial assets	Repayments / disposals	Impair- ment losses	Changes in consolidation scope	Foreign exchange translation	Non-current/ Current reclassification	Other movements	As of Decem- ber 31, 2019
Gross	363,8	46,8	-0,9	-	-1,9	1,0	-47,2	-6,5	355,1
Impairment losses	-58,1	-	-	1,5	-	-	-	-0,1	-56,7
NON-CURRENT I4 OPERATING FINANCIAL ASSETS	305,7	46,8	-0,9	1,5	-1,9	1,0	-47,2	-6,6	298,4
Gross	49,0	-	-72,9	-	-0,3	0,1	47,2	10,0	33,1
Impairment losses	-2,7	-	-	-1,5	-	-	-	-	-4,2
CURRENT I4 OPERATING FINANCIAL ASSETS	46,3	-	-72,9	-1,5	-0,3	0,1	47,2	10,0	28,9
NON-CURRENT AND CURRENT I4 OPERATING FINANCIAL ASSETS	352,0	46,8	-73,8	-	-2,2	1,1	-	3,4	327,3



IFRIC 12 operating financial assets maturity schedule:

(€ million)	1 year	2 years	3 years	4 years	5 years	more than 5 years	Total
France	7,7	116,1	9,0	14,6	15,6	20,5	183,5
Europe excluding France	34,1	268,3	69,0	19,5	16,2	418,1	825,2
Rest of the World	15,3	33,2	22,8	29,9	15,7	64,3	181,2
Global businesses	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-
TOTAL	57,1	417,6	100,8	64,0	47,5	502,9	1 189,9

IFRS 16 operating financial assets maturity schedule:

(€ million)	1 year	2 years	3 years	4 years	5 years	more than 5 years	Total
France	-	-	-	-	-	-	-
Europe excluding France	17,1	14,7	23,6	8,8	7,8	22,1	94,1
Rest of the World	10,4	47,6	5,8	5,9	6,2	147,4	223,3
Global businesses	1,4	3,0	1,1	0,9	0,9	2,6	9,9
Other	-	-	-	-	-	-	-
TOTAL	28,9	65,3	30,5	15,6	14,9	172,1	327,3

Operating financial assets held by the Group in countries considered high-risk by the International Monetary Fund are not material in amount.

5.5 Non-current and current concession liabilities

Concession financial liabilities result from the application of IFRIC 12 on the accounting treatment of concessions (see note 5).

Non-current and current concession liabilities in 2019 break down, by operating segment, as follows:

(€ million)	As of December 31,					
	Non current		Current		Total	
	2018 represented	2019	2018 represented	2019	2018 represented	2019
France	56.2	61.8	15.4	14.8	71.6	76.6

Europe excluding France	1,288.9	1,344.2	86.4	110.1	1,375.3	1,454.3
Rest of the World	5.3	15.7	16.1	3.2	21.4	18.9
Global businesses	-	-	0.1	0.2	0.1	0.2
Other	-	-	-	-	-	-
CONCESSION LIABILITIES	1,350.4	1,421.7	118.0	128.3	1,468.4	1,550.0

5.6 Contract assets and liabilities

Non-current and current contract assets represent services rendered by the Group but not yet billed, where the right to remuneration is conditional. These assets are mainly receivables recognized on a percentage completion basis in respect of construction activities, concession contracts including construction services or public or private service contracts including a construction component (concession or industrial BOT contract).

Non-current and current contract liabilities mainly reflect amounts already settled by customers for which the Group has not yet performed the service (deferred income, down payments received from customers). These liabilities are recognized in revenue when the Group performs the service.

Contract assets and liabilities break down as follows:

(€ million)	As of December 31,			
	Contract assets		Contract Liabilities	
	2018 represented	2019	2018 represented	2019
France	9.4	29.3	93.6	100.9
Europe excluding France	110.9	92.1	332.4	372.9
Rest of the World	59.9	110.5	299.1	348.1
Global businesses	422.9	405.8	238.0	230.3
Other	0.5	-	-	-
Total	603.6	637.7	963.1	1,052.2

Contract assets and liabilities are mainly included in Operating receivables, Operating financial assets and Operating payables in the Consolidated Statement of Financial Position.



5.7 Management of supply risks

As part of supply management and cost optimization measures or to hedge future production, certain Group subsidiaries may be required, depending on their activities, to contract forward purchases or sales of commodities and set-up derivatives to fix the cost of commodities supply or the selling price of commodities produced (electricity).

Commodity risks are described in Note 8.3.1.3.

5.8 Commitments relating to operating activities

5.8.1 Commitments given

Commitments given relating to operating activities comprise operating guarantees and purchase commitments.

Operational or operating guarantees encompass all commitments not relating to the financing of operations, required in respect of contracts or markets and generally given in respect of the operations and activities of Group companies. Such guarantees include bid bonds accompanying tender offers, advance payment bonds and completion or performance bonds given on the signature of contracts or concession arrangements.

The main categories of commitments include:

- Commitments related to site rehabilitation:

Pursuant to environmental texts and legislation concerning the operation of landfill sites, the Group is obliged to provide financial guarantees to local authorities/government agencies. These guarantees notably encompass the rehabilitation and supervision of the site during 30 years or more, depending on national legislation (currently 60 years in the United Kingdom), following its operation.

In this context, performance bonds and letters of credit are issued to local authorities and other public bodies.

Depending on the contract, these guarantees cover the costs necessary for the supervision and rehabilitation of all or part of the site.

These guarantees are quantified in accordance with legal or contractually-defined procedures. These guarantees, which are given in their total amount from the start of operations, expire at the end of the commitment (termination of rehabilitation work and site supervision).

Therefore, the amount of our commitment for the rehabilitation and supervision of landfill sites is in general different from the amount of the provision recorded in the Group accounts (see Note 10). Provisions calculated by the Group are based on different valuations (based on internal policies regarding site security and designed for optimal environmental protection), which take into account the progressive nature of the obligation: operation of the landfill sites results in progressive damage to the site and, as such, a related liability is recognized as the facility is operated (see Note 10).

If the amount of the commitment is less than the provision at the balance sheet date, an off-balance sheet commitment is not disclosed. Conversely, if the amount of the commitment is greater than the provision, an off-balance sheet commitment is disclosed in the amount not provided.

- Commitments related to engineering and construction activities:

In the context of its business activities the Group gives (and receives) commitments which can take several forms (deposits on construction works and performance guarantees). Issued in favor of customers or banking institutions, they are subject to individual follow-up by site and their maturity depends on their contractual characteristics.

■ Commitments relating to concession arrangements:

Pursuant to public service contracts with a public entity, the Group may be called on/obliged to invest in infrastructures that will then be operated and remunerated in accordance with contractual terms and conditions.

The contractual commitment may concern both the financing of installations and infrastructures to be used in operations and also the maintenance and replacement of infrastructures necessary to operations.

Expenditure relating to the replacement or rehabilitation of installations is monitored and recognized through any timing differences between the total contractual commitment over the contract term and its realization, in accordance with IAS 37 on Provisions.

Expenditure relating to the construction, maintenance and restoration of concession assets is reviewed with respect to IFRIC 12 and detailed in Note 5.5.

■ Firm commodity purchase and sale commitments:

As part of supply management and cost optimization, certain Group subsidiaries may be required, depending on their activities, to set-up derivatives to fix the cost of commodity supplies where the contracts do not offer appropriate protection or contract forward purchases or sales of commodities.

Commodity risks are described in Note 8.3.1.3.

Firm commodity purchase commitments, excluding derivatives, mainly concern:

- Gas in Energy activities (mainly in Central Europe) and Water activities. Most commitments mature in less than 5 years;
- Electricity in Energy activities (purchase commitments mature in less than 3 years due to poor liquidity in the electricity market for longer maturities);
- Biomass and coal in Energy activities.

In parallel, firm electricity sales contracts, excluding derivatives, are entered into to secure selling prices over a period of less than 3 years. These commitments concern production activities exposed to the electricity wholesale market and primarily Waste activities in the UK (electricity produced by waste incineration) and Energy activities in Central Europe.

Off-balance sheet commitments given break down as follows:

(€ million)	December 31, 2018 represented	As of December 31, 2019	Maturing in		
			Less than 1 year	1 to 5 years	More than 5 years
Operational guarantees including performance bonds	7,982.3	8,272.0	3,827.5	2,563.4	1,881.1
Purchase commitments	204.4	205.4	139.5	64.9	1.0
TOTAL COMMITMENTS RELATING TO OPERATING ACTIVITIES	8,186.7	8,477.4	3,967.0	2,628.3	1,882.1

(€ million)	As of December 31, 2018 represented	As of December 31, 2019
France	230.4	276.7
Europe excluding France	1,406.2	1,598.4
Rest of the World	1,474.1	1,349.4
Global businesses	2,452.3	2,617.2
Other	2,623.7	2,635.7
TOTAL COMMITMENTS RELATING TO OPERATING ACTIVITIES	8,186.7	8,477.4

The increase in commitments given between December 31, 2018 and December 31, 2019 (+€341.4 million) mainly concerns the "Al Dur" project (+€171.0 million), the "Umm Al Quwain" project (+€287.0 million) and the "Rabigh 3" project (+€116.0 million).

In addition to the commitments given quantified above, Veolia has also granted commitments of an unlimited amount in respect of completion or performance bonds and a waste construction and treatment contract in Hong Kong, in the Waste and Water businesses. This commitment, with unlimited consideration, is related to the contract duration: 37 months of construction and 15 years of operations, i.e. as of December 31, 2019 a residual duration of 9 years.

These commitments are limited to the duration of the related contracts and were approved in advance by the Board of Directors of Veolia Environnement.

Total commitments given in respect of Veolia Water Technologies construction activities amount to €2,185.5 million as of December 31, 2019, compared with €2,037.5 million as of December 31, 2018.

Commitments given in respect of joint ventures (at 100%) total €619.7 million as of December 31, 2019 compared with €600.2 million as of December 31, 2018 and mainly consist of performance bonds given to Al Wathba VB in the amount of €422.5 million and to Glen Water Holding in the amount of €76.7 million.

5.8.2 Commitments received

These commitments mainly consist of commitments received from our partners in respect of construction contracts.

They total €683.6 million as of December 31, 2019, compared with €1,054.6 million as of December 31, 2018. The movement between December 31, 2018 and 2019 is due to the Shell Qatar guarantee for -€289.3 million.

Total commitments received in respect of Veolia Water Technologies activities amount to €110.5 million as of December 31, 2019, compared with €511.0 million as of December 31, 2018.

NOTE 6 PERSONNEL COSTS AND EMPLOYEE BENEFITS

6.1 Personnel costs and employee numbers

Personnel costs break down as follows:

(€ million)	2018 represented	2019
Employee costs	-7,158.7	-7,515.4
Profit-sharing and incentive schemes	-114.2	-126.3
Share-based compensation (IFRS2) (*)	-18.8	-26.2
PERSONNEL COSTS	-7,291.7	-7,667.9

(*) As disclosed in note 6.2, share-based compensation concerns the Management Incentive Plan and the Employee Savings Plan.

Average consolidated employees* break down as follows:

By operating segment	2018 represented	2019
France	30,882	30,497
Europe excluding France	57,701	58,383
Rest of the World	52,630	58,382
Global businesses	27,731	28,912
Other	1,875	1,847
CONSOLIDATED EMPLOYEES *	170,819	178,021

By company	2018 represented	2019
Fully-consolidated companies	170,722	177,921
Joint operations	97	100
CONSOLIDATED EMPLOYEES *	170,819	178,021

* Consolidated employees, excluding employees of equity-accounted subsidiaries.

6.2 Share-based compensation

6.2.1 Accounting principles

Pursuant to IFRS 2, Share-based Payment, an expense is recorded in respect of share purchase or subscription plans and other share-based compensation granted by the Group to its employees. When the plans are equity-settled, the fair value of instruments is determined at the grant date and the fair value of the plan is expensed in the Consolidated

Income Statement and recognized directly in equity over the period in which the benefit vests and the service is rendered.

For share grant plans, the fair value of instruments is calculated based on the share price at the grant date and the expected dividend yield. Where beneficiaries are required to hold shares beyond the vesting period, the expense includes a discount for non-transferability.

With regard to Group Savings Plans (GSP), the Veolia Group applies CNC recommendations (press release of December 21, 2004 on Company Savings Plans and complement of February 2, 2007). The GSP compensation expense corresponds to the discount and the Company's contribution to subscribers. It also takes account of the requirement to hold shares for five years.

The discount for non-transferability is calculated as the difference in value between a forward sale of shares at the end of the lock-in period and the spot purchase of the same number of shares, financed by a loan.

6.2.2 Share-based compensation expense

The share-based compensation expense breaks down as follows:

<i>(in € million)</i>	2018 re-presented	2019
Employee savings plan	14.2	10.0
2018 Performance share grant plan	4.4	9.5
2019 Performance share grant plan	-	2.8
2018 Free share grant plan	0.8	3.9
Other	-0.6	-
Total including social costs	18.8	26.2

It is recalled that the Management Incentive Plan expired in 2018. It did not have a material impact on the Group financial statements in 2018.

6.2.2.1 2019 EMPLOYEE SAVINGS PLANS

Veolia Environnement regularly sets up, through Group Savings Plans (GSP), in France and internationally, standard and leveraged savings plans which enable a large number of employees of Veolia Environnement and its subsidiaries to subscribe for Veolia Environnement shares. Shares subscribed by employees under these plans are subject to certain restrictions regarding their sale or transfer.

In 2019, Veolia Environnement proposed a new Group employee share ownership transaction, rolled-out across 30 countries.

Under this transaction, shares were subscribed by employees with a 20% discount on the average opening price of the share during the 20 trading days preceding the date of the subscription price was set by the Chief Executive Officer. The subscription price was set at €17.44.

Under the so-called “secure” format, employees received a gross contribution from the Group equal to 100% of the employee’s investment up to a maximum of €300. This personal investment and the net contribution from the Group are guaranteed in the event of a fall in the share price and receive a guaranteed minimum return.

In the United Kingdom, a Share Incentive Plan (SIP) was alternatively implemented, enabling employees to subscribe at the lower of the share price on July 1, 2019 and the share price on December 13, 2019, while benefiting from a contribution from the Group capped at GBP 250.

On November 15, 2019, Veolia Environnement issued 1,440,918 new shares under the Group Savings Plan, representing a share capital increase of €25.1 million.

In 2019, an expense of €10.0 million is recorded in operating income and includes a discount for non-transferability of €4.4 million.

6.2.2.2 2019 PERFORMANCE SHARE GRANT PLANS

In 2019, the Group granted 1,131,227 performance shares (PS) to executives and employees of the Group, subject to the beneficiary’s presence in the Group on April 30, 2022 and a performance condition based on the following criteria:

- an economic criterion (average increase in Current net income attributable to owners of the Company per share);
- a stock market criterion (relative performance of the total shareholder return (TSR) of the Veolia Environnement share compared with the CAC 40 index);
- CSR criteria (growth in circular economy revenue and performance of the Group compared with companies in the Utilities sector of the FTSE4GOOD non-financial index).

Taking account of these characteristics and market conditions at the plan implementation date, the fair value of the instruments was estimated at €17.14.

The performance and presence conditions are taken into account in estimating the compensation expense.

An expense of €2.8 million is recorded in operating income in 2019.

6.2.2.3 PLANS IMPLEMENTED BEFORE 2019

Veolia implemented the following plans in previous years:

- **2018 Employee Savings Plans:** In 2018, Veolia proposed a new Group employee share ownership transaction, rolled-out across 29 countries. This plan expired on December 31, 2018 and therefore had no impact on the Group financial statements in 2019.
- **2018 Performance Share Grant Plans:** the Group set-up a performance share grant plan (PSP) subject to the beneficiary’s presence in the Group at the vesting date on May 2, 2021 and a performance condition. An expense of €9.5 million is recorded in operating income in 2019.
- **Free Share Grant Plan:** in 2018, the Group granted approximately 250,000 free shares to employees in France, subject to the beneficiary’s presence in the Group on expiry of the plan on May 2, 2019. Beneficiaries are required to hold the shares for a period of two years from the vesting date, that is until May 2, 2021. This plan has expired as of December 31, 2019. An expense of €3.9 million is recorded in operating income in 2019.



6.3 Pension plans and other post-employment benefits

The following disclosures relate to the pension plans offered by fully consolidated entities.

6.3.1 Accounting principles

Veolia Environnement and its subsidiaries have several pension plans.

Defined contribution plans: plans under which the Group (or a Group entity) pays an agreed contribution to a separate entity, relieving it of any liability for future payments.

These obligations are expensed in the Consolidated Income Statement when due.

Defined benefit plans: all plans which do not meet the definition of a defined contribution plan. The net obligations of each Group entity are calculated for each plan based on an estimate of the amount employees will receive in exchange for services rendered during the current and past periods. The amount of the obligation is discounted to present value and the fair value of plan assets is deducted.

Where the calculation shows a plan surplus, the asset recognized is capped at the total of the discounted present value of profits, in the form of future repayments or reductions in plan contributions. The plan surplus is recognized in non-current financial assets.

Certain obligations of the Group or Group entities may enjoy a right to reimbursement, corresponding to a commitment by a third party to repay in full or in part the expenses relating to these obligations. This right to reimbursement is recognized in non-current financial assets.

The financing of defined benefit pension plans may lead the Group to make voluntary contributions to pension funds. Where applicable, these voluntary contributions are presented in Net cash from operating activities in the Consolidated Cash Flow Statement, in the same way as other employer contributions.

Employee obligations of the Group are calculated using the projected unit credit method. This method is based on the probability of personnel remaining with companies in the Group until retirement, the foreseeable changes in future compensation, and the appropriate discount rate. Specific discount rates are adopted for each monetary area. They are determined based on the yield offered by bonds issued by leading companies (rated AA) or treasury bonds where the market is not liquid, with maturities equivalent to the average term of the plans valued in the relevant region. This results in the recognition of pension-related assets or provisions in the Consolidated Statement of Financial Position and the recognition of the related net expenses.

Pursuant to IAS 19, Employee Benefits, actuarial gains and losses are recognized in other comprehensive income.

6.3.2 Description of plans

In accordance with the regulatory environment and collective agreements, the Group has established defined benefit and defined contribution pension plans (companies or multi-employer) in favor of employees and other post-employment benefits.

DEFINED CONTRIBUTION PLANS:

Supplemental pension defined contribution plans have been set up in certain subsidiaries. Expenses incurred by the Group under these plans totaled €96.6 million in 2019 and €92.9 million in 2018.

DEFINED BENEFIT PLANS:

The tables in Note 6.3.3 present the obligations in respect of defined benefit pension plans and other post-employment benefits.

The measurement of these obligations is reflected by the DBO (Defined Benefit Obligation). These future outflow commitments may be partially or fully funded ("plan assets").

The most significant obligations are located in the United Kingdom and France.

United Kingdom

The defined benefit obligation in the United Kingdom is €1,177.7 million as of December 31, 2019 (compared with €1,019.2 million as of December 31, 2018) and is funded by plan assets of €1,189.4 million at this date (compared with €990.6 million as of December 31, 2018 re-presented). The increase in the defined benefit obligation is presented in the table below in Note 6.3.3.

The average duration of these plans is approximately 17 years.

In the United Kingdom, defined benefit pension plans are mainly final salary plans. Most of these plans are closed to new employees and the majority are also closed to the accrual of new rights. These plans are financed by employer contributions, or even employee contributions, paid to an independent pension fund (managed by a Trustee). Local regulations ensure the independence of the pension funds, which has nine members (including five employer representatives, three representatives of active and retired employees and one independent member).

Plan rules authorize the employer to recover excess funds paid at the end of the plans.

These plans allow retirees to take part of the benefit as a lump-sum and the balance as a pension. In the case of a pension, the related risk is tied to the longevity of beneficiaries.

France

In France, the defined benefit obligation for all plans totaled €464.2 million as of December 31, 2019 (€413.2 million as of December 31, 2018 re-presented) and is funded by plan assets of €80.6 million at this date (€82.0 million as of December 31, 2018 re-presented). The increase in the defined benefit obligation is presented in the table below in Note 6.3.3.

Nearly 85% of the obligation relates to retirement indemnities (legally required payments) paid in a lump sum. These indemnities represent a number of months' salary based on seniority and are legally required by the applicable collective-bargaining agreement to be paid on an employee's retirement. A portion of these obligations is covered by insurance contracts, but this funding is at the discretion of the employer. The average duration of these plans is approximately 12 years.

The risk associated with this type of plan is linked to the renegotiation of collective bargaining agreements which could generate adjustments to the indemnities granted.

MULTI-EMPLOYER PLANS

Under collective agreements, some Group companies participate in multi-employer defined benefit pension plans. However, these plans are unable to provide a consistent and reliable basis for the allocation of the obligation, assets and costs between the different participating entities. They are therefore recorded as defined contribution plans in accordance with IAS 19 revised. The multi-employer plans concern approximately 2,200 employees in 2019 and are mainly located in Germany, where such plans are generally funded by redistribution.

The corresponding expense recorded in the Consolidated Income Statement is equal to annual contributions and totals €8.3 million in 2019, compared with €6.6 million in 2018 represented.



6.3.3 Obligations in respect of defined benefit pension plans and other post-employment benefits

6.3.3.1 ACTUARIAL ASSUMPTIONS

Actuarial assumptions used for calculation purposes vary depending on the country in which the plan is implemented.

The benefit obligation in respect of pension plans and post-employment benefits is based on the following average assumptions:

	As of December 31, 2018	As of December 31, 2019
Discount rate	2.46%	1.57%
<i>United Kingdom</i>	2.90%	2.05%
<i>Euro zone</i>	1.85%	0.85%
Inflation rate	2.32%	2.25%
<i>United Kingdom (RPI / CPI)</i>	3,15% / 2,15%	2,90% / 1,90%
<i>Euro zone</i>	1.50%	1.50%

6.3.3.2 CHANGE IN THE DEFINED BENEFIT OBLIGATION (DBO)

Change in the DBO (€ million)	As of December 31,							
	United Kingdom		France		Other countries		TOTAL	
	2018 represented	2019	2018 represented	2019	2018 represented	2019	2018 represented	2019
Defined benefit obligation at beginning of year	1,112.6	1,019.2	409.4	413.2	492.7	473.0	2,014.7	1,905.4
Current service cost	3.8	2.6	19.9	20.1	21.5	22.4	45.2	45.1
Plan amendments or new plans (contract wins)	6.7	0.3	2.7	0.5	-0.8	-1.5	8.6	-0.7
Curtailments and settlements	-30.7	18.5	-3.4	-1.2	-10.7	-9.4	-44.8	7.9
Interest cost	27.9	29.1	6.2	6.7	8.2	8.9	42.3	44.7
Actuarial (gains) losses	-50.9	98.7	-3.4	43.0	-9.0	50.7	-63.3	192.4
<i>o/w actuarial (gains) losses arising from experience adjustments</i>	<i>3.6</i>	<i>-3.3</i>	<i>-2.2</i>	<i>-4.0</i>	<i>4.9</i>	<i>2.6</i>	<i>6.3</i>	<i>-4.7</i>
<i>o/w actuarial (gains) losses arising from changes in demographic assumptions</i>	<i>-7.3</i>	<i>-21.8</i>	<i>2.0</i>	<i>0.7</i>	<i>-2.2</i>	<i>1.9</i>	<i>-7.5</i>	<i>-19.2</i>
<i>o/w actuarial (gains) losses arising from changes in financial assumptions</i>	<i>-47.2</i>	<i>123.8</i>	<i>-3.2</i>	<i>46.3</i>	<i>-11.7</i>	<i>46.2</i>	<i>-62.1</i>	<i>216.3</i>
Plan participants' contributions	0.3	0.3	-	-	1.5	1.5	1.8	1.8
Benefits paid	-42.4	-40.5	-18.9	-17.6	-26.6	-30.9	-87.9	-89.0
Benefits obligation assumed on acquisition of subsidiaries	-	-	0.8	1.3	5.3	0.9	6.1	2.2
Benefits obligation transferred on divestiture of subsidiaries	-	-	-	-1.3	-19.6	-9.9	-19.6	-11.2
Foreign exchange translation	-8.1	55.4	-	-	10.0	8.7	1.9	64.1
Other	-	-5.9	-0.1	-0.5	0.5	-17.8	0.4	-24.2
(a) Defined Benefit Obligation at the end of year	1,019.2	1,177.7	413.2	464.2	473.0	496.6	1,905.4	2,138.5

6.3.3.3 SENSITIVITY OF THE DEFINED BENEFIT OBLIGATION AND THE CURRENT SERVICE COST

The Group defined benefit obligation is especially sensitive to discount and inflation rates.

A 1% increase in the discount rate would decrease the defined benefit obligation by approximately €322 million and the current service cost of the next year by €6 million. A 1% decrease in the discount rate would increase the defined benefit obligation by €398 million and the current service cost of the next year by €7 million.

Conversely, a 1% increase in the inflation rate would increase the defined benefit obligation by approximately €185 million and the current service cost by €6 million. A 1% decrease in the inflation rate would decrease the defined benefit obligation by €174 million and the current service cost by €5 million.

6.3.4 Change in the funding status of post-employment benefit obligations and the provision

	United Kingdom		France		Other countries		TOTAL	
	2018 repre- sented	2019	2018 repre- sented	2019	2018 repre- sented	2019	2018 repre- sented	2019
(€ million)								
(a) Defined Benefit Obligation at the end of year	1,019.2	1,177.7	413.2	464.2	473.0	496.6	1,905.4	2,138.5
(b) Fair value of plan assets at end of year	990.6	1,189.4	82.0	80.6	205.5	206.2	1,278.1	1,476.2
Funding status = (b) – (a)	-28.6	11.7	-331.2	-383.6	-267.5	-290.4	-627.3	-662.3
Provisions	-45.0	-18.3	-331.4	-383.8	-267.8	-290.9	-644.2	-693.0
Prepaid benefits (regimes with a funding surplus)	16.4	30.0	0.2	0.2	0.3	0.5	16.9	30.7

Provisions for post-employment benefits total €693.0 million, compared with €644.2 million in 2018.

6.3.5 Change in plan assets

The following table presents plan assets funding obligations in respect of defined benefit pension plans and other post-employment benefits.

	As of December 31,							
	United Kingdom		France		Other countries		TOTAL	
	2018 represented	2019	2018 represented	2019	2018 represented	2019	2018 represented	2019
Change in plan assets (€ million)								
Fair value of plan assets at beginning of the year	1,073.3	990.6	89.6	82.0	210.1	205.5	1,373.0	1,278.1
Actual return on plan assets	-25.1	145.3	2.2	2.3	-11.5	26.3	-34.4	173.9
o/w interest income	27.2	29.0	1.5	1.5	2.3	3.0	31.0	33.5
o/w return on plan assets excluding amounts included in interest income	-52.3	116.3	0.7	0.8	-13.8	23.3	-65.4	140.4
Employer contributions	21.2	20.9	0.1	0.2	6.6	7.6	27.9	28.7
Plan participants' contributions	0.3	0.3	-	-	1.5	1.5	1.8	1.8
Benefits obligation assumed on acquisition of subsidiaries	-	-	-	-	2.6	-	2.6	-
Benefits obligation transferred on divestiture of subsidiaries	-	-	-	-	-	-2.2	-	-2.2
Settlements	-28.8	17.2	-	-	-	-0.5	-28.8	16.7
Benefits paid	-42.2	-40.3	-9.6	-3.8	-9.6	-18.7	-61.4	-62.8
Administrative expenses paid by the fund	-0.1	-	-	-	-0.1	-0.2	-0.2	-0.2
Foreign exchange translation	-7.9	55.4	-	-	5.6	5.4	-2.3	60.8
Other	-0.1	-	-0.3	-0.1	0.3	-18.5	-0.1	-18.6
(b) Fair value of plan assets at end of the year	990.6	1,189.4	82.0	80.6	205.5	206.2	1,278.1	1,476.2

Investment policy

In the United Kingdom, the investment policy is defined by the pension fund. Funding levels and the contribution payment schedule are negotiated by the employer and the Trustee, based on triennial actuarial valuations. Contributions include both the funding of the shortfall in relation to past rights and service costs for future years.

United Kingdom pension funds aim to attain 100% technical coverage of liabilities within 10 years, while maintaining a risk level considered as acceptable by all parties (Trustees and employers). In order to achieve that goal, plan assets are allocated within two portfolios:

- A Liability Driven Investment portfolio (where flows best match liabilities and the value fluctuates in line with the liability value). This portfolio mainly includes inflation-linked bonds issued or guaranteed by the UK government and derivatives with leading banking counterparties, with which collateralization contracts have been signed in order to minimize counterparty risk.
- A portfolio of growth assets invested in a diverse range of asset classes (equities, bonds, diversified funds, etc.) and seeking to outperform the liabilities. Portfolio management was delegated to an external manager in January 2017.

A hedging policy covering some financial risks (particularly foreign exchange, inflation and interest rate) was implemented, in order to reduce the fund's exposure to these risks and therefore reduce the risk of increased contributions. These hedges were implemented using derivatives (currency forwards, total return swaps on gilts, interest rate swaps, etc.).

In France, the Group's assets are placed primarily with insurance companies and invested in the general insurance fund. The French General Insurance Code (*Code général des assurances*) requires insurance companies to provide a minimum rate of return on these funds, calculated primarily based on the rate offered by government bonds.

For the entire Group, the actual rate of return on plan assets reflects market performance based on the asset investment profiles. In 2019, growth assets were mainly impacted by the good performance of assets in the United Kingdom (+€143.5 million).

The Group plans to make contributions of €28.1 million to defined benefit plans in 2020.

Investment and return on assets

On average, Group pension plan assets were invested as follows:



	2018 represented	2019
Unquoted assets	13.2%	10.6%
Liquid unquoted assets - Investment funds (general insurance fund)	8.7%	7.6%
Non-liquid unquoted assets - Investment funds *	3.3%	2.3%
Unquoted assets - Other	1.2%	0.7%
Quoted assets (liquid)	82.3%	86.8%
Government bonds **	27.5%	29.5%
Corporate bonds	2.8%	5.6%
Shares	4.7%	1.6%
Diversified Investment funds	44.6%	48.7%
Liquid quoted assets - Other	2.7%	1.4%
Liquid assets	4.5%	2.6%
TOTAL	100.0%	100.0%

* The line "Non-liquid unquoted assets - Investment funds" consists of funds without guaranteed monthly liquidity (e.g. real estate funds, infrastructure funds).

** The portion of government bonds from high-risk countries is not material.

The increase in corporate bonds (13.9% of total) and shares (24.6% of total) in 2019 principally concerns the portfolio of growth assets in the UK.

6.3.6 Impact on Comprehensive Income

The net benefit cost breaks down as follows:

(€ million)	As of December 31,							
	United Kingdom		France		Other countries		TOTAL	
	2018 represented	2019	2018 represented	2019	2018 represented	2019	2018 represented	2019
Service cost	8.6	4.2	19.2	19.0	12.9	12.1	40.7	35.3
o/w Current service cost	3.8	2.6	19.9	20.1	21.5	22.4	45.2	45.1
o/w Past service cost	4.8	1.6	-0.7	-1.1	-8.6	-10.3	-4.5	-9.8
Net interest expense	0.7	0.1	4.7	5.2	5.9	5.9	11.3	11.2
o/w interest cost	27.9	29.1	6.2	6.7	8.2	8.9	42.3	44.7
o/w interest income on plan assets	-27.2	-29.0	-1.5	-1.5	-2.3	-3.0	-31.0	-33.5
Interest income on right to reimbursement	-	-	-	-	-	-	-	-
Administrative expenses paid by the fund	0.1	-	-	-	0.1	0.2	0.2	0.2
Other	-0.1	0.1	0.3	-	0.2	-	0.4	0.1
Net benefit cost recognized in the Consolidated Income Statement	9.3	4.4	24.2	24.2	19.1	18.2	52.6	46.8
Return on plan assets excluding amounts included in interest income	52.3	-116.3	-0.7	-0.8	13.8	-23.3	65.4	-140.4
Actuarial (gains) losses arising from experience adjustments	3.6	-3.3	-2.2	-4.0	4.9	2.6	6.3	-4.7
Actuarial (gains) losses arising from changes in demographic assumptions	-7.3	-21.8	2.0	0.7	-2.2	1.9	-7.5	-19.2
Actuarial (gains) losses arising from changes in financial assumptions	-47.2	123.8	-3.2	46.3	-11.7	46.2	-62.1	216.3
Net benefit cost recognized in other comprehensive income	1.4	-17.6	-4.1	42.2	4.8	27.4	2.1	52.0
NET BENEFIT COST RECOGNIZED IN TOTAL COMPREHENSIVE INCOME	10.7	-13.2	20.1	66.4	23.9	45.6	54.7	98.8

The costs in the Consolidated Income Statement are recorded in operating income, except for the net interest expense, recorded in net finance costs.

6.4 Compensation and related benefits of key management (related parties)

Group Executive Committee members and directors represent the key management personnel of the Group.

The following table summarizes amounts paid by the Group in respect of compensation and other benefits granted to members of the Company Executive Committee.

Short-term benefits include fixed and variable compensation, employee benefits and directors' fees. Variable compensation comprises amounts paid in fiscal year Y in respect of fiscal year Y-1.



(€ million)	As of December 31, 2018 represented	As of December 31, 2019
Short-term benefits, excluding employer contributions	9.3	9.5
Employer contributions	2.7	3.6
Post-employment benefits ^(a)	0.1	0.1
Other long-term benefits ^(b)	-	-
Share-based payments	-	1.0
Other terms	-	-
TOTAL	12.1	14.2

(a) Current service cost.

(b) Other compensation vested but payable in the long-term.

As of December 31, 2019, total pension obligations in respect of members of the Executive Committee amount to €4.2 million, compared with €3.5 million as of December 31, 2018.

With the exception of the Chairman and Chief Executive Officer, the members of the Board of Directors receive no compensation other than directors' fees from the Company and, if applicable, from controlled companies. The total gross amount of directors' fees (before withholding tax) paid by the Company and controlled companies to directors and the non-voting members was € 617,575 in 2019.

NOTE 7

GOODWILL, INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT

7.1 Goodwill

7.1.1 Movements in goodwill

Goodwill breaks down as follows:

(€ million)	As of December 31, 2018 represented	As of December 31, 2019
Gross	6,210.1	6,042.3
accumulated impairment losses	-1,102.4	-914.3
NET	5,107.7	5,128.0

7.1.1.1 MAIN GOODWILL BALANCES BY CASH-GENERATING UNIT

A Cash-Generating Unit (CGU) is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets.

For the purpose of impairment tests, goodwill is allocated, from the acquisition date, to each of the cash-generating units or each of the groups of cash-generating units that are expected to benefit from the business combination, referred to hereafter as "goodwill CGUs".

Given the Group's activities, the goodwill CGUs are below operating segments in the organizational structure and generally represent a country or group of countries.

The Group has 24 goodwill CGUs as of December 31, 2019, including 8 with allocated goodwill in excess of €200 million, presented below.

The main goodwill balances in net carrying amount by goodwill CGU (amounts in excess of €200 million) are as follows:

(€ million)	As of December 31, 2018 represented	As of December 31, 2019
France Water	904.1	902.4
British Isles	754.6	801.4
Czech Republic and Slovakia	597.2	615.0
Germany	392.2	383.1
Hazardous Waste	358.3	364.1
France Waste	337.6	331.2
VWT	272.6	275.1
Poland	251.4	253.5
Goodwill balances > €200 million as of December 31, 2018	3,868.0	3,925.8
Other goodwill balances < €200 million	1,239.7	1,202.2
TOTAL GOODWILL	5,107.7	5,128.0

Goodwill balances of less than €200 million break down by operating segment as follows:

Goodwill balances < € 200 million (€ million)	As of December 31, 2018	As of December 31, 2019
France	-	-
Europe excluding France	244.9	280.6
Rest of the World	875.5	799.9
Global Businesses	116.3	118.4
Other	3.0	3.3
TOTAL	1,239.7	1,202.2

As of December 31, 2019, accumulated impairment losses total -€914.3 million and mainly concern goodwill of Germany (-€493.0 million) and Poland (-€99.6 million) cash-generating units.

7.1.1.2 MOVEMENTS IN THE NET CARRYING AMOUNT OF GOODWILL

Movements in the net carrying amount of goodwill during 2019 are as follows:

(€ million)	As of December 31, 2018 represented	Changes in consolidation scope	Foreign exchange translation	Impairment losses	Transfers to Assets classified as held for sale	Other	As of December 31, 2019
France	1,241.7	-8.3	-	-	-	0.1	1,233.5
Europe excluding France	2,240.2	55.6	43.8	-	-6.0	-	2,333.6
Rest of the World	875.5	-90.9	5.2	-1.6	-	11.8	800.0
Global Businesses	747.3	3.4	8.5	-	-	-1.5	757.7
Other	3.0	0.2	-	-	-	-	3.2
TOTAL GOODWILL	5,107.7	-40.0	57.5	-1.6	-6.0	10.4	5,128.0

The main movements in Group goodwill **during 2019** were primarily due to:

- **changes in consolidation scope** in the amount of -€40.0 million, including:
 - €55.6 million in Europe excluding France, relating notably to the acquisition of Renscimento in Portugal (€25.7 million);
 - -€90.9 million in the Rest of the World, relating to:
 - the allocation of a portion of North American goodwill to the divestiture of energy assets in the United States (-€84.1 million);
 - the acquisition of Huafei in China (€7.6 million);
 - the acquisition of Stericycle in Chile (€11.9 million);
- **foreign exchange translation** gains and losses of €57.5 million, mainly due to movements in the pound sterling (+€39.9 million), the U.S. Dollar (+€10.1 million) and the Argentinian peso (-€12.3 million) against the euro.
- **other movements** of €10.4 million, including €9.5 million in respect of hyperinflation in Argentina.

7.1.2 Impairment tests

Veolia performs systematic annual impairment tests in respect of goodwill and other intangible assets with an indefinite useful life. More frequent tests are performed where there is indication that the cash-generating unit may have suffered a loss in value.

Changes in the general economic and financial context, worsening of local economic environments, or changes in the Group's economic performance or stock market capitalization represent, in particular, external indicators of impairment that are analyzed by the Group to determine whether it is appropriate to perform more frequent impairment tests.

Goodwill impairment is recognized in operating income and is definitive.

KEY ASSUMPTIONS UNDERLYING THE DETERMINATION OF RECOVERABLE AMOUNTS

The need to recognize an impairment is assessed by comparing the net carrying amount of the assets and liabilities of the CGU or group of CGUs with their recoverable amount.

The recoverable amount of a cash-generating unit is the higher of its fair value less costs to sell and its value in use.

Fair value less costs to sell is determined based on available information enabling the best estimate of the amount obtainable from the sale of the cash-generating unit in an arm's length transaction between knowledgeable, willing parties, less the costs of disposal.

The *value in use* determined by the Group is generally equal to the present value of the future cash flows expected to be derived from the CGU or group of CGUs, taking account of their residual value and based on the following:

- Cash flow projections are taken from the Long-Term Plan prepared each year and reflect changes in volumes, prices, direct costs and investment in the period, determined based on contracts and activities and in line with past data and expected changes over the period covered by the Long-Term Plan.
- This plan covers the year in progress and the next six years. This period is representative of the average duration of the Group's long-term contract portfolio and its short-term activities;
- Terminal values are calculated based on discounted forecast flows for the last year of the long-term plan (2025). These flows are determined for each CGU or group of CGUs based on a perpetual growth rate which takes account of factors such as inflation;
- These terminal values are calculated based on discount rates and perpetual growth rates reflecting the country or the geographic area of the cash-generating unit;
- A discount rate (weighted average cost of capital) is determined for each asset, cash-generating unit or group of cash-generating units: it is equal to the risk-free rate plus a risk premium weighted for country-specific risks (see Note 2). The discount rates estimated by management for each cash-generating unit therefore reflect current market assessments of the time value of money and the country specific risks to which the CGU or group of CGUs is exposed, with the other risks reflected in the expected future cash flows from the assets;
- Investments included in forecast future cash flows are those investments that enable the level of economic benefits expected to arise from the assets to be maintained in their current condition. Restructuring plans to which the Group is not committed are not included in forecast cash flows used to determine values in use.

Changes in the economic and financial context, as well as changes in the competitive or regulatory environment may impact estimates of recoverable amounts, as may unforeseen changes in the political, economic or legal systems of certain countries.

The assumptions underlying the impairment tests on Group cash-generating units with material goodwill balances are as follows:

Geographic area	Recoverable amount determination period	Discount rate	Perpetual growth rate
France	Value in use	5.3%	1.3%
British Isles (United Kingdom)	Value in use	5.7%	1.8%
Germany	Value in use	5.3%	1.2%
Czech Republic and Slovakia	Value in use	6.4%	1.9%
Poland	Value in use	8.2%	1.8%
North America	Value in use	5.9%	1.9%

7.1.2.1 IMPAIRMENT TESTS RESULTS

Impairment tests were performed on all cash-generating units. No material impairment losses were recognized in 2019.

7.1.2.2 SENSITIVITY OF RECOVERABLE AMOUNTS

Recoverable amounts determined for impairment testing purposes were tested for their sensitivity to a 1% increase in discount rates, a 1% decrease in perpetual growth rates and a 5% decrease in operating cash flows.

The changes in operating cash flows taken into account for the purpose of these sensitivity tests include EBITDA, less investments net of divestitures, plus changes in working capital. They also include the impact of Efficiency and Convergence plans launched by each cash-generating unit at the date of preparation of the Long-Term Plan.

These assumptions are considered reasonable given the Group's activities and the geographic areas of its operations.

For a certain number of cash-generating units, these tests lead to the identification of recoverable amounts lower than the net carrying amount of the cash-generating unit, adjusted where appropriate for impairments recognized during the period:

Difference between the recoverable amount and the net carrying amount						
(€ million)						
Cash-generating Unit	Net carrying amount Data at 100%	o/w goodwill (*)	As of December 31, 2019	With an increase in the discount rate (1 %)	With an decrease in the perpetual growth rate (1 %)	With a decrease in operating cash flows (5%)
Poland	1,667.0	253.5	180.0	-76.1	-14.0	87.2
Germany	1,315.4	383.1	230.7	-117.4	-65.7	152.5
Mexico	178.7	49.8	21.7	-2.3	4.0	11.6

Taking account of commercial development perspectives, the recoverable amount of the Czech Republic-Slovakia cash-generating unit exceeds its net carrying amount, including with a 1% increase in the discount rate, a 1% decrease in the perpetual growth rate or a 5% decrease in operating cash flows. The value of these cash-generating units nonetheless remains sensitive to management's ability to implement the planned pricing conditions.

7.2 Intangible assets

Intangible assets are identifiable non-monetary assets without physical substance. They mainly consist of certain assets recognized in respect of concession arrangements (IFRIC 12).

Intangible assets purchased separately are initially measured at cost in accordance with IAS 38. Intangible assets acquired through business combinations are recognized at fair value separately from goodwill. Subsequently, intangible assets are measured at cost less accumulated amortization and impairment losses. They are tested for impairment where there is indication of loss in value (non-performance of a significant long-term contract under the terms laid down in the contract, technical operating issues).

7.2.1 Concession intangible assets

Concession intangible assets correspond to the right of the concession holder to bill users of a public service in return for construction services provided by it to the concession grantor under public service contracts in accordance with IFRIC 12, Service Concession arrangements.

This concession holder right is equal to the fair value of the construction of the concession infrastructure plus borrowings costs recognized during the construction period. It is amortized over the contract term in accordance with an appropriate method reflecting the rate of consumption of the concession asset's economic benefits as from the date the infrastructure is brought into service.

Investment grants received in respect of concession arrangements are generally definitively earned and, therefore, are not repayable. In accordance with the option offered by IAS 20, these grants are presented as a deduction from intangible assets and reduce the amortization charge in respect of the concession intangible asset over the residual term of the concession arrangement.

Movements in the net carrying amount of concession intangible assets during **2019** are as follows:

(€ million)	As of December 31, 2018 represented	Additions	Disposals	Impairment losses	Amortization/ Reversals	Change in scope of consolidation	Foreign exchange translation	Transfer s to Assets classified as held for sale	Other	As of December 31, 2019
Concession intangible assets, gross	7,140.1	433.9	-162.4	-	-	-55.5	93.0	68.6	-24.3	7,493.4
Amortization and impairment losses	-3,672.8	-	141.4	-7.1	-397.4	44.6	-38.6	-62.0	15.9	-
CONCESSION INTANGIBLE ASSETS, NET	3,467.3	433.9	-21.0	-7.1	-397.4	-10.9	54.4	6.6	-8.4	3,517.4

Additions mainly concern France (€109.1 million), Europe excluding France (€242.1 million) and the Rest of the World (€82.4 million).

Foreign exchange translation gains and losses are primarily due to movements in the pound sterling (+€31.7 million), the Moroccan dirham (+€7.5 million) and the Czech crown (+€9.7 million) against the euro.

Other movements mainly concern the Europe excluding France segment for -€27.0 million and the Rest of the world segment for €11.4 million.

Concession intangible assets break down by operating segment as follows:

(€ million)	Net carrying amount as of December 31, 2018 represented	As of December 31, 2019		
		Gross carrying amount	Amortization and impairment losses	Net carrying amount
France	632.9	1,440.7	-829.6	611.1
Europe excluding France	2,080.9	4,476.5	-2,352.3	2,124.2
Rest of the World	752.1	1,563.4	-782.8	780.6
Global Businesses	1.4	12.8	-11.3	1.5
Other	-	-	-	-
CONCESSION INTANGIBLE ASSETS	3,467.3	7,493.4	-3,976.0	3,517.4

7.2.2 Other intangible assets

Other intangible assets mainly consist of entry fees paid to local authorities for public service contracts, the value of contracts acquired through business combinations ("contractual rights"), patents, licenses, software and operating rights.

Other intangible assets are amortized on a straight-line basis over their useful life, unless another systematic amortization basis better reflects the rate of consumption of the asset.

Useful lives are as follows:

Range of useful lives in number of years *

Entry fees paid to local authorities	3 to 80
Purchased contractual rights	3 to 35
Purchased software	3 to 10
Other intangible assets	1 to 30

* The range of useful lives is due to the diversity of intangible assets concerned

Other intangible assets break down as follows:

(€ million)	As of December 31, 2018 represented	As of December 31, 2019
Intangible assets with an indefinite useful life, net	41.0	41.5
Intangible assets with a definite useful life, gross	3,445.9	3,896.5
Amortization and impairment losses	-2,370.6	-2,565.4
Intangible assets with a definite useful life, net	1,075.3	1,331.1
OTHER INTANGIBLE ASSETS, NET	1,116.3	1,372.6

Movements in the net carrying amount of other intangible assets during **2019** are as follows:

(€ million)	As of December 31, 2018 represented	Additions	Disposals	Impairment losses	Amortization	Changes in scope of consolidation	Foreign exchange translation	Other	As of December 31, 2019
Intangible assets with an indefinite useful life, net	41.0	0.2	-	-	-	0.7	-	-0.4	41.5
Intangible assets with a definite useful life, net	1,075.3	153.4	-4.8	-17.3	-227.5	316.2	7.9	27.9	1,331.1
OTHER INTANGIBLE ASSETS	1,116.3	153.6	-4.8	-17.3	-227.5	316.9	7.9	27.5	1,372.6

Intangible assets with an indefinite useful life are primarily trademarks.

Intangible assets with a definite useful life are comprised of :

- entry fees paid to local authorities in respect of public service contracts total €34.6 million as of December 31, 2019, including €16.9 million in France, compared with €52.5 million as of December 31, 2018, including €31.2 million in France;
- purchase contractual rights of €378.0 million as of December 31, 2019, compared with €345.8 million as of December 31, 2018;
- Purchased software of €160.1 million as of December 31, 2019, compared with €164.6 million as of December 31, 2018.

Changes in consolidation scope mainly concern purchase price allocation of €180.9 million.

7.3 Property, plant and equipment

Property, plant and equipment are recorded at historical acquisition cost, less accumulated depreciation and any accumulated impairment losses.

Borrowing costs attributable to the acquisition or construction of identified installations, incurred during the construction period, are included in the cost of those assets in accordance with IAS 23, Borrowing Costs.

Property, plant and equipment are recorded by component, with each component depreciated over its useful life.

Useful lives are as follows:

	Range of useful lives in number of years *
Buildings	20 to 50
Technical installations	7 to 35
Vehicles	3 to 25
Other plant and equipment	3 to 12

* The range of useful lives is due to the diversity of tangible assets concerned.

Property, plant and equipment are primarily depreciated on a straight-line basis, unless another systematic depreciation basis better reflects the rate of consumption of the asset.

They are tested for impairment where there is indication of loss in value.

In accordance with the option offered by IAS 20, "Accounting for Government Grants and Disclosure of Government Assistance", investment grants are deducted from the gross carrying amount of property, plant and equipment to which they relate. When the construction of an asset covers more than one period, the portion of the grant not yet used is recorded in "Other liabilities" in the Consolidated Statement of Financial Position.

7.3.1 Movements in the net carrying amount of property, plant and equipment

Movements in the net carrying amount of property, plant and equipment during **2019** are as follows:

(€ million)	As of December 31, 2018 represented	Additions	Disposals	Impairment losses	Depre- ciation	Change in scope of consoli- dation	Foreign exchange translation	Other move- ments	As of December 31, 2019
Property, plant and equipment, gross	19,398.4	1,340.1	-633.7	-	-	-640.6	175.7	-64.4	19,575.5
Depreciation and impairment losses	-11,541.6	-	525.1	8.8	-990.7	169.3	-102.1	35.5	-11,895.7
Property, plant and equipment, net	7,856.8	1,340.1	-108.6	8.8	-990.7	-471.3	73.6	-28.9	7,679.8

Additions mainly concern:

- France (€161.2 million);
- Europe excluding France (€505.6 million);
- the Rest of the world (€532.6 million).

Disposals, net of impairment losses and depreciation, of -€108.6 million mainly concern:

- Europe excluding France (-€63.2 million), including -€11.1 million in respect of Litesko;
- and the Rest of the World (-€32.8 million).

Depreciation of -€990.7 million mainly concerns France (-€199.4 million), Europe excluding France (-€407.8 million) and the Rest of the World (-€255.8 million).

Changes in consolidation scope of -€471.3 million mainly concern:

- Europe excluding France (€122.7 million), including Levice in Slovakia (€58.2 million) and Renascimento in Portugal (€15.7 million);
- the Rest of the world (-€578.8 million), including -€685.8 million relating to the divestiture of energy assets in the United States.

Foreign exchange translation gains and losses are primarily due to movements in the U.S. Dollar (+€24.5 million), the pound sterling (+€24.5 million), the Polish zloty (+€14.2 million) and the Argentinian peso (-€11.1 million) against the euro.

Property, plant and equipment break down by operating segment as follows:

(€ million)	Net value As of December 31, 2018	As of December 31, 2019		
		Gross carrying amount	Depreciation and impairment losses	Net carrying amount
France	1,024.8	3,892.1	-2,908.9	983.2
Europe excluding France	3,567.3	8,864.3	-5,112.5	3,751.8
Rest of the World	2,612.6	4,277.6	-1,997.0	2,280.6
Global businesses	587.8	2,348.8	-1,742.5	606.3
Other	64.3	192.7	-134.8	57.9
PROPERTY, PLANT AND EQUIPMENT	7,856.8	19,575.5	-11,895.7	7,679.8

The breakdown of property, plant and equipment by class of assets is as follows:

(€ million)	Net carrying amount As of December 31, 2018 represented	As of December 31, 2019		
		Gross carrying amount	Depreciation and impairment losses	Net carrying amount
Land	667.1	1,449.3	-797.7	651.6
Buildings	1,264.1	3,230.8	-1,853.5	1,377.3
Technical installations, plant and equipment	4,154.3	9,962.3	-6,176.4	3,785.9
Travelling systems and other vehicles	630.5	2,308.3	-1,647.4	660.9
Other property, plant and equipment	337.9	1,713.5	-1,394.3	319.2
Property, plant and equipment in progress	802.9	911.3	-26.4	884.9
PROPERTY, PLANT AND EQUIPMENT	7,856.8	19,575.5	-11,895.7	7,679.8

7.4 Right of use

In application of the Lease standard (IFRS 16), the Group analyses the contractual provisions of an agreement at the time of signature, to determine whether it presents the characteristics of a lease. In substance, it is necessary to determine whether the agreement conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

Where these characteristics exist, the Group recognizes, at the time the asset is made available:

- a new asset, the "Right of use", which represents the right to use the leased asset during the term of the lease;
- a liability, the "Lease debt (IFRS16)", which represents the lease payment commitment.

The Group applies a single recognition method for all leases, excluding short-term leases (duration of 12 months or less) and leases of assets with a low value. The Group adopted a threshold of US\$5,000 for low value assets.

Lease payments on contracts excluded from the scope of IFRS 16, as well as variable payments, continue to be recognized as operating expenses.

(€ million)	As of December 31, 2019
Short term lease contracts	2.3
Low value lease contracts	100.9
Variable lease	4.2
Total	107.4

Initial and subsequent measurement of Right of use assets

The right of use asset recognized includes:

- the amount of the related lease debt,
- plus, where applicable:
 - lease payments made before the asset is made available,
 - initial direct costs incurred to obtain the lease, and
 - any dismantling or rehabilitation costs for which Veolia is liable,
- less any incentives received.

The lease debt is equal to the present value of:

- future lease payments (fixed payments or in-substance fixed payments, as well as variable lease payments that depend on an index or a rate),
- incentives receivable,
- amounts that Veolia expects to pay under residual value guarantees,
- the exercise price of a purchase option if Veolia is reasonably certain to exercise it, as well as
- any penalties for terminating the lease.

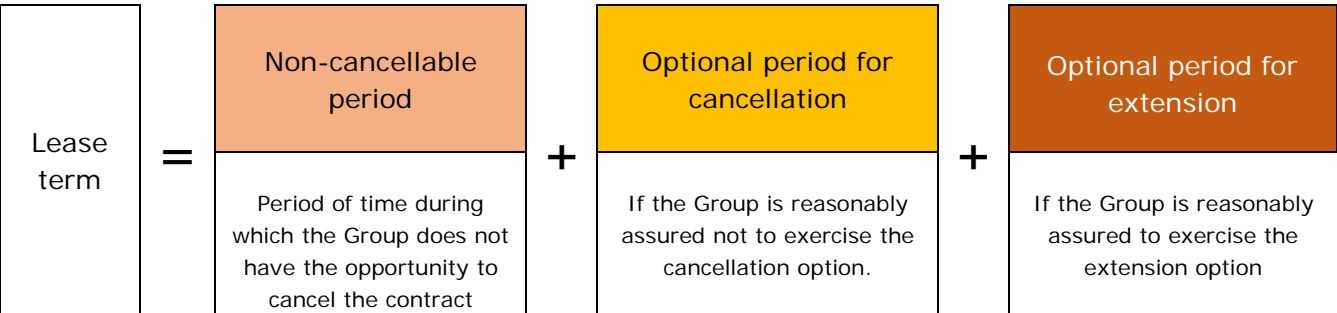


The right of use asset is depreciated or amortized on a straight-line over the shorter of the expected useful life of the asset and the lease term.

Impairment tests are performed in accordance with the method described in Note 7.1.2.

Lease term

To determine the lease term, the Group analyzes the lease provisions, as illustrated below:



The enforceable period is also assessed taking into account the duration and characteristics of the customer contract.

Discount rate

When calculating the present value of future lease payments and as authorized by the standard, the Group has elected not to use the rate implicit in the lease as the discount rate, and has developed a calculation method to determine the incremental borrowing rate that would apply to the financing of our leased assets. This methodology is based on a rate schedule calculated by currency and maturity based on the following parameters: reference rate of the relevant currency and the Veolia credit spread, the Group satisfying, through access to the bond market, the majority of the financing requirements of its subsidiaries.

Lease amendments

The net carrying amount of the right of use asset is adjusted in the event of amendments to the lease provisions that require the remeasurement of the lease debt (modification of an index, increase or reduction in the lease term, increase or decrease in future lease payments, etc.) or in the event of changes in assumptions as to whether the exercise of renewal or termination options is reasonably certain.

Right of use assets break down as follows:

(€ million)	Net carrying amount As of December 31, 2018 represented	As of December 31, 2019		
		Gross carrying amount	Depreciation and impairment losses	Net carrying amount
Right of use assets, Intangible assets	9.3	16.4	-8.7	7.7
Right of use assets, Land	275.4	510.6	-208.5	302.1
Right of use assets, Buildings	795.8	1,481.0	-744.3	736.7
Right of use assets, Property & equipment	161.0	330.5	-173.0	157.5
Right of use assets, Rolling stock, vehicles & other transport equip	409.7	850.6	-429.1	421.5

Right of use assets, other tangible assets	47.3	84.5	-45.4	39.1
RIGHT OF USE ASSETS (NET)	1,698.5	3,273.6	-1,609.0	1,664.6

Right of use break down by operating segment break down as follows:

(€ million)	Net value as of December 31, 2018 represented	As of December 31, 2019		
		Gross carrying amount	Depreciation and impairment losses	Net carrying amount
France	325.0	591.2	-300.7	290.5
Europe excluding France	457.4	959.8	-463.9	495.9
Rest of the World	399.6	687.1	-321.9	365.2
Global businesses	338.9	738.2	-372.1	366.1
Other	177.6	297.3	-150.4	146.9
RIGHT OF USE	1,698.5	3,273.6	-1,609.0	1,664.6

Movements in the net carrying amount of rights of use during 2019 are as follows:

(€ million)	As of December 31, 2018 represent ed	Addition s	Disposal s	Impairm ent losses	Depreciati on	Change in scope of consolidatio n	Foreign exchang e translatio n	Other movemen ts	As of Decemb er 31, 2019
Right of use assets	3,151.0	400.0	-399.5	-	-	26.7	26.9	68.5	3,273.6
Depreciation and impairment losses	-1,452.5	-	333.6	-1.8	-445.2	9.6	-13.3	-39.4	-1,609.0
Right of use assets (net)	1,698.5	400.0	-65.9	-1.8	-445.2	36.3	13.6	29.1	1,664.6

Additions mainly concern France (€81.9 million); Europe excluding France (€108.9 million) and global businesses (€118.9 million).

Depreciation for 2019 total -€445.2 million and break down as follows:

- intangible assets : -€3.3 million,
- lands : -€45.8 million
- constructions : -€154.6 million
- technical installations : -€57.2 million
- vehicles : -€169.6 million
- other tangible assets : -€14.7 million

Cumulated depreciation mainly concerns France (-€95.0 million), Europe excluding France (-€121.8 million) and the Rest of the World (-€97.4 million), and global businesses (-€96.4 million).

Sub-lease revenue associated with right of use assets is not material.

NOTE 8**FINANCING AND FINANCIAL INSTRUMENTS****8.1 Financial assets and liabilities**

Financial assets and liabilities mainly consist of:

- Borrowings and other financial liabilities, presented in Note 8.1.1;
- Other current and non-current financial assets, presented in Note 8.1.2;
- Cash and cash equivalents and bank overdrafts and other cash position items, presented in Note 8.1.3;
- Derivative instruments, presented in Note 8.3.

8.1.1 Financial liabilities

Financial liabilities include borrowings, other financing and bank overdrafts and derivative liabilities.

With the exception of trading liabilities and derivative liabilities which are measured at fair value, borrowings and other financial liabilities are recognized initially at fair value less transaction costs and subsequently measured at amortized cost using the effective interest method.

The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts over the estimated term of the financial instrument or, where applicable, over a shorter period, to the net carrying amount of the financial asset or liability.

		Non-current		Current		Total	
		As of December 31, 2018	As of December 31, 2019	As of December 31, 2018	As of December 31, 2019	As of December 31, 2018	As of December 31, 2019
(€ million)	Notes						
Bond issues	8.1.1.1	9,043.9	8,830.4	727.1	1,145.4	9,771.0	9,975.8
Other borrowings	8.1.1.2	473.7	536.4	3,866.5	4,298.4	4,340.2	4,834.8
Lease IFRS 16	8.1.1.3	1,556.0	1,417.9	425.2	465.7	1,981.2	1,883.6
TOTAL CURRENT AND NON-CURRENT BORROWINGS		11,073.6	10,784.7	5,018.8	5,909.5	16,092.4	16,694.2

The headings "Net increase/decrease in current borrowings" and "Change in current lease debt (IFRS 16)" in the Consolidated Cash Flow Statement include redemptions of current bonds in the amount of -€746.4 million in 2019 and increases and repayments of other current borrowings of -€191.7 million. This heading does not include accrued

interest payable of €1.6 million in 2019, presented on the line "Interest paid" in the Consolidated Cash Flow Statement.

The heading "New non-current borrowings and other debts" in the Consolidated Cash Flow Statement includes non-current bond issues in the amount of €1,656.2 million in 2019 and new other non-current borrowings of €575.5 million. However, it excludes new finance lease obligations of €406.6 million in 2019, presented in investment flows and other long-term deferred revenue of €0.7 million.

The headings "Principal payments on non-current borrowings and other debts" and "Repayment of / (New) non-current lease debt (IFRS 16)" in the Consolidated Cash Flow Statement include redemptions of non-current bonds in the amount of -€789.1 million in 2019 and principal payments on other non-current borrowings of -€138.0 million.

8.1.1.1 CHANGES IN NON-CURRENT AND CURRENT BOND ISSUES

ISSUE ON THE PANDA BOND MARKET

On December 17, 2019, Veolia Environnement successfully issued a bond of a nominal amount of 1.5 billion renminbi (€192 million) on the Chinese domestic market (Panda Bond).

Veolia, the leading French issuer on the Panda market, placed these bonds with Chinese and international investors. The bonds have a 1 year maturity and bear interest of 3.70%

REDEMPTION OF US DOLLAR-DENOMINATED BONDS

On December 23, 2019, Veolia Environnement redeemed early its U.S. dollar bond line bearing interest at 6.75% and maturing in 2038, in the nominal amount of €100 million.

In relation to the divestiture of heating and cooling networks in the United States, which acquisition has been financed in 2007 by an issuance in US dollars.

REDEMPTION OF A EURO BOND LINE

On April 24, 2019, Veolia Environnement repaid, at maturity, a euro bond line, in the nominal amount of €462 million.

€750 MILLION BOND ISSUE

On January 14, 2019, Veolia successfully performed at par a €750 million bond issue maturing in January 2024 (i.e. 5 years) and bearing a coupon of 0.892%.

ISSUE OF BONDS CONVERTIBLE INTO AND/OR EXCHANGEABLE FOR NEW AND/OR EXISTING SHARES

On September 13, 2019, Veolia Environnement redeemed early the bonds convertible and/or exchangeable for new and/or existing shares issued on March 8, 2016 and maturing March 15, 2021, of a nominal amount of approximately €700 million.

On September 12, 2019, Veolia Environnement completed an offering of bonds convertible and/or exchangeable for new and/or existing shares maturing January 1, 2025 by way of a private placement without shareholders' preferential subscription rights, of a nominal amount of €700 million (see note 9.4.1).

Non-current and current bond issues break down as follows:

(€ million)	As of December 31, 2018	Net movement	Changes in consolidation scope	Fair value adjustments (1)	Foreign exchange translation	Non-current / current reclassification	Transfers to Liabilities classified as held for sale	Other	As of December 31, 2019
Non-current bonds issues	9,043.9	1,656.2	-789.1	-	19.2	49.0	-1,148.9	0.1	8,830.4
Current bonds issues	727.1	-	-746.4	7.6	-	8.1	1,148.9	0.1	1,145.4
TOTAL BOND ISSUES	9,771.0	1,656.2	-1,535.5	7.6	19.2	57.1	-	0.2	9,975.8

(1) Value adjustments are recorded in financial income and expenses.

Increases/subscriptions mainly concern bond issues performed by Veolia Environnement totaling €1.6 billion (see above).

Redemptions mainly concern the redemption at maturity on April 24, 2019 of the euro bond line in the nominal amount of €462 million and on August 10 and September 2, 2019 of CNY bond lines in the nominal euro equivalent amount of €128 million each and the early redemption on September 12, 2019 of the OCEANE bonds maturing in 2021 in the nominal amount of €700 million.

Non-current/current reclassifications total €1,148.9 million and mainly concern the euro bond lines maturing in November and December 2020 in the amount of €500 million and €431.2 million, respectively and the CNY bond line maturing in December 2020 in the amount CNY 1.5 billion (€192.4 million).

Foreign exchange translation gains total €57.1 million and mainly concern the translation at the year-end exchange rate of the GBP bond line maturing in 2037 with a euro equivalent value of €36.9 million as of December 31, 2019, of the U.S. dollar bond line maturing in 2038 with a euro-equivalent value of €8.8 million as of December 31, 2019 and of the CNY bond line maturing in 2019 with a euro equivalent value of €8 million as of December 31, 2019.

Non-current bond issues break down by maturity as follows:

	Non current		Current		Total	
(€ million)	As of December 31, 2018 represented	As of December 31, 2019	As of December 31, 2018 represented	As of December 31, 2019	As of December 31, 2018 represented	As of December 31, 2019
Bond issues	9,043.9	8,830.4	727.1	1,145.4	9,771.0	9,975.8
• out of which < 1 year	-	-	727.1	1,145.4	727.1	1,145.4
• out of which 2-3 years	2,301.2	1,969.0	-	-	2,301.2	1,969.0
• out of which 4-5 years	1,944.5	1,367.3	-	-	1,944.5	1,367.3
• out of which > 5 years	4,798.2	5,494.1	-	-	4,798.2	5,494.1

(€ million)	As of December 31, 2018 represented	As of December 31, 2019	Maturity		
			2 to 3 years	4 to 5 years	> 5 years
Publicly offered or trade issuances ^(a)	8,260.9	8,035.7	1,947.9	1,347.5	4,740.3
European market ⁽ⁱ⁾	7,882.4	7,747.0	1,947.9	1,347.5	4,451.6
American market ⁽ⁱⁱ⁾	378.5	288.7	-	-	288.7
Bonds convertible into and/or exchangeable for new and/or existing shares (OCEANE)	698.8	717.4	-	-	717.4
Panda Tranche 1	-	-	-	-	-
Stirling Water Seafeld Finance bond issue ^(b)	51.7	48.0	13.9	15.9	18.2
Other < €50 million in 2018 and 2019	32.5	29.3	7.2	3.9	18.2
NON-CURRENT BOND ISSUES	9,043.9	8,830.4	1,969.0	1,367.3	5,494.1

(a) Publicly offered or trade issuances.

i. European market: as of December 31, 2019, an amount of €8,690.7 million is recorded in the Consolidated Statement of Financial Position in respect of bonds issued under the European Medium Term Notes (EMTN) Program, including €7,747.0 million maturing in more than one year. The impact of the fair value remeasurement of hedged interest rate risk is €19.2 million at the year-end (non-current portion).

ii. U.S. market: as of December 31, 2019, remaining nominal outstandings on the bond issues performed in the United States on May 27, 2008 total USD 300.0 million, maturing June 1, 2038 and paying fixed-rate interest of 6.75% (Tranche 3).

(b) Stirling Water Seafeld Finance bond issue: the outstanding nominal balance as of December 31, 2019 on the amortizable bond issue performed in 1999 by Stirling Water Seafeld Finance (Veolia Water UK subsidiary, Water activities), is GBP 45.4 million (non-current and current portion). This bond issue is recognized at amortized cost for a euro equivalent of €48.0 million as of December 31, 2019 (non-current portion). This bond matures on September 26, 2026.

Breakdown of **non-current bond issues** by main component:

Transaction <i>(all amounts are in € million)</i>	Final maturity	Currency	Nominal	Interest rate	Net carrying amount
Series 12	11/25/2033	EUR	700	6.125%	696
Series 23	5/24/2022	EUR	645	5.125%	667
Series 24	10/29/2037	GBP	764	6.125%	763
Series 28 (PEO)	1/6/2021	EUR	638	4.247%	632
Series 29 (PEO)	3/30/2027	EUR	750	4.625%	695
Series 31 (PEO)	1/10/2028	EUR	500	1.590%	367
Series 33	10/4/2023	EUR	600	0.314%	599
Series 34	1/4/2029	EUR	500	0.927%	499
Series 35	3/30/2022	EUR	650	0.672%	649
Series 36	11/30/2026	EUR	650	1.496%	683
Series 38	1/7/2030	EUR	750	1.940%	748
Series 39	1/14/2024		750	0.892%	749
Total bond issues (EMTN)	N/A	N/A	7,897	N/A	7,747
USD Series Tranche 3	6/1/2038	USD	267	6,750 %	289
Total publicly offered or traded issuances in USD	N/A	N/A	267		289
Bonds convertible into and/or exchangeable for new and/or existing shares (OCEANE)	1/1/2025	EUR	700	N/A	717
Total bonds convertible into and/or exchangeable for new and/or existing shares (OCEANE)	N/A	N/A	700	N/A	717
Stirling Water Seafield Finance bond issue	9/26/2026	GBP	47	5,822 %	48
Total principal bond issues	N/A	N/A	8,911	N/A	8,801
Total other bond issues	N/A	N/A		N/A	29
TOTAL NON-CURRENT BOND ISSUES	N/A	N/A		N/A	8,830

8.1.1.2 CHANGES IN OTHER FINANCIAL LIABILITIES

	Non Current		Current		Total	
	As of December 31, 2018 represented	As of December 31, 2019	As of December 31, 2018 represented	As of December 31, 2019	As of December 31, 2018 represented	As of December 31, 2019
(€ million)						
Other financial debts	473.7	536.4	3,866.5	4,298.4	4,340.2	4,834.8
• out of which < 1 year	-	-	3,866.5	4,298.4	3,866.5	4,298.4
• out of which 2-3 years	98,7	228,6	-	-	98,7	241,8
• out of which 4-5 years	194,6	60,0	-	-	194,6	60,0
• out of which > 5 years	180,4	247,8	-	-	180,4	234,6

€ million	As of December 31, 2018, represented	Net movement	Changes in consolidation scope	Fair value adjustments	Foreign exchange translation	Non-current / current reclassification	Transfers to Liabilities classified as held for sale	Other	As of December 31, 2019
Non- current other financial liabilities	473.7	107.2	63.0	0.4	4.5	-91.6	-10.7	-10.1	536.4
Current other financial liabilities	3,866.5	279.8	59.2	-0.1	-10.9	91.6	-1.6	13.9	4,298.4
Other financial liabilities	4,340.2	387.0	122.2	0.3	-6.4	-0.0	-12.3	3.8	4,834.8

Movements in financial liabilities during **2019** are as follows:

Other non-current financial liabilities mainly comprise:

- France of €17.6 million;
- the Rest of the world of €343.5 million, including:
 - Redal and Amendis in Morocco (Water) of €71.4 million and €13.6 million, respectively, as of December 31, 2019 compared with €59.0 million and €17.6 million, respectively, as of December 31, 2018;
 - International Water Services Guayaquil Interagua in Ecuador (Water) of €79.1 million as of December 31, 2019 and €76.3 million as of December 31, 2018;
- Europe excluding France, including Germany, of €143.1 million, and mainly:
 - Braunschweiger in Germany of €38.0 million as of December 31, 2019;
 - Stadtwerke Gorlitz of €34.9 million as of December 31, 2019 and €31.6 million as of December 31, 2018;
- the Global businesses in the amount of €19.7 million, including €18.5 million in Sarpi;

- certain subsidiaries of the Other operating segment in the amount of €12.5 million.

Other current financial liabilities total €4,298.4 million as of December 31, 2019, compared with €3,866.4 million as of December 31, 2018 re-presented.

Net movements in other current financial liabilities in 2019 mainly reflect the increase in treasury notes issued in the amount of €245.2 million and the subscription in August 2019 of two Chinese renminbi loans with a 1-year maturity for a total amount of €262.8 million.

Changes in consolidation scope mainly concern the acquisition of energy activities in China (Kedong Heating) for €16.4 million and in Hong Kong (Southa group) for €12.7 million.

As of December 31, **2019**, other current financial liabilities mainly concern Veolia Environnement for €3,925.9 million (including treasury notes of €3,494.8 million, accrued interest on debt of €130.6 million and Chinese renminbi debt of €266.8 million).

8.1.1.3 LEASE DEBT (IFRS 16)

Lease debt recognition and measurement principles are disclosed in Note 7.4.

(in € million)	As of December 31, 2018 represented	Net movemen t	Changes in consolidatio n scope	Fair value adjustmen ts	Foreign exchange translation	Non- current / current reclassifica tion	Transfers to Liabilities classified as held for sale	Other	As of December 31, 2019
IFRS 16 non current lease obligation	1,556.0	330.3	5.5	-	11.6	-502.3	-	16.8	1,417.9
IFRS 16 current lease obligation	425.2	-470.9	6.0	-	2.9	502.0	-	0.5	465.7
IFRS 16 Lease obligation	1,981.2	-140.6	11.5	-	14.5	-0.3	-	17.3	1,883.6

Lease debt by operating segment breaks down as follows:

(€ million)	Net value as of December 31, 2018 represented	As of December 31, 2019		
		Non -current IFRS 16 debt	Current IFRS 16 debt	Total IFRS 16 debt
France	401.1	251.7	100.2	351.9
Europe excluding France	539.8	442.0	126.2	568.2
Rest of the World	472.4	311.7	108.3	420.0
Global businesses	382.3	295.7	93.4	389.1
Other	185.6	116.8	37.6	154.4
LEASE DEBT (IFRS16)	1,981.2	1,417.9	465.7	1,883.6

Lease debt by type of assets breaks down as follows:

(€ million)	As of December 31, 2018, represented	As of December 31, 2019
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PP&E	73,0%	72,8%
Technical installations, plant and equipment	9,9%	8,4%
Travelling systems and other vehicles	17,1%	18,8%

Lease debt by maturity breaks down as follows:

	As of December 31, 2019		
	Non current	Current	Total
<i>(€ million)</i>			
IFRS16 Lease debts	1,417.9	465.7	1,883.6
• 1 year	-	465.7	465.7
• 2 years	338.5	-	338.5
• 3 years	263.2	-	263.2
• 4 years	198.6	-	198.6
• 5 years	148.9	-	148.9
> 5 years	468.7	-	468.7

<i>(€ million)</i>	As of December 31, 2019
Reimbursement IFRS 16 lease debt	446.7
Interests on IFRS lease debts	40.8
Exemption and variable leases	107.4
Leases of the period	594.9



8.1.1.4 BREAKDOWN OF NON-CURRENT AND CURRENT FINANCIAL LIABILITIES BY CURRENCY

Financial liabilities break down by original currency (before currency swaps) as follows:

- euro-denominated debt of €13,195.2 million as of December 31, 2019 and €13,341.5 million as of December 31, 2018 re-presented;
- pound sterling-denominated debt of €1,018.7 million as of December 31, 2019 and €922.3 million as of December 31, 2018, re-presented;
- U.S. dollar-denominated debt of €1,080.9 million as of December 31, 2019 and €889.2 million as of December 31, 2018 re-presented.

8.1.2 Non-current and current financial assets

Financial assets include assets classified as loans and receivables, liquid assets, financing assets, other financial assets, derivative assets and cash and cash equivalents.

Financial assets are initially recognized at fair value plus transaction costs, where the assets concerned are not subsequently measured at fair value through profit or loss. Where the assets are measured at fair value through profit or loss, transaction costs are expensed directly to net income.

The Group classifies financial assets in one of the categories identified by IFRS 9 on the acquisition date, based on the instrument's characteristics and the business model.

ASSETS AT AMORTIZED COST

Financial assets are valued at amortized cost where they are recovered by collecting contractual cash flows (payments of principal and interest on the principal amount outstanding).

These assets comprise loans to non-consolidated investments, operating financial assets, other loans and receivables and trade receivables. After initial recognition at fair value, they are recognized and measured at amortized cost using the effective interest method.

In accordance with IFRS 9, these assets are impaired in the amount of expected credit losses. Impairment losses are recorded in other financial income and expenses.

ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME SUBSEQUENTLY RELEASED TO NET INCOME

This category includes financial assets recovered by collecting contractual cash flows (payments of principal and interest on the principal amount outstanding) or selling the assets.

Changes in the fair value of these assets are recognized directly in other comprehensive income, with the exception of interest income and dividends recognized in other financial income and expenses. Fair value gains and losses are released to net income on the sale of the assets.

ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME NOT SUBSEQUENTLY RELEASED TO NET INCOME

This category includes equity instruments not held for trading. It relates primarily to non-consolidated investments.

Changes in the fair value of these assets are recognized directly in other comprehensive income, with the exception of interest income and dividends recognized in other financial income and expenses. Fair value gains and losses are not released to net income on the sale of the assets.

Fair value is equal to market value in the case of quoted securities and to an estimate of the fair value in the case of unquoted securities, determined based on financial criteria most appropriate to the specific situation of each security. Financial investments which are not quoted in an active market and for which the fair value cannot be measured reliably, are recorded by the Group at historical cost less any accumulated impairment losses.

ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS

This category includes:

- financial assets that are not held either to collect contractual cash flows or to sell the assets and whose contractual conditions do not solely give rise to payments of principal and interest on the principal amount outstanding;
- assets designated at fair value and primarily the cash UCITS portfolio whose performance and management is based on fair value and non-consolidated investments.

Fair value gains and losses are recognized in other financial income and expenses.

Net gains and losses on derivatives entered into for trading purposes consist of swapped flows and the change in the value of the instrument.

8.1.2.1 OTHER NON-CURRENT AND CURRENT FINANCIAL ASSETS

Other non-current and current financial assets break down as follows:

	Non-current		Current		Total	
	As of December 31, 2018 represented	As of December 31, 2019	As of December 31, 2018 represented	As of December 31, 2019	As of December 31, 2018 represented	As of December 31, 2019
(€ million)						
Gross	385.6	427.9	279.4	309.9	665.0	737.8
Impairment losses	-71.1	-72.7	-37.4	-37.5	-108.5	-110.2
FINANCIAL ASSETS IN LOANS AND RECEIVABLES, NET	314.5	355.2	242.0	272.4	556.5	627.6
OTHER FINANCIAL ASSETS	13.6	14.6	2.2	3.3	15.8	17.9
LIQUID ASSETS AND FINANCING FINANCIAL ASSETS	4.7	4.8	188.0	462.8	192.7	467.6
TOTAL OTHER FINANCIAL ASSETS, NET	332.8	374.6	432.2	738.5	765.0	1,113.1

8.1.2.2 CHANGES IN OTHER NON-CURRENT FINANCIAL ASSETS

Changes in the value of other non-current financial assets during **2019** are as follows:

(€ million)	As of December 31, 2018	Changes in business	Changes in consolidation scope	Fair value adjustments	Impairment losses ⁽²⁾	Foreign exchange translation	Non-current / current reclassification	Transfers to Assets classified as held for sale	Other	As of December 31, 2019
Gross	385.6	31.1	1.1	-	-	6.1	-0.7	-	4.7	427.9
Impairment losses	-71.1	-	-	-	-0.1	-1.4	-	-	-0.1	-72.7
NON CURRENT FINANCIAL ASSETS IN LOANS AND RECEIVABLES, NET	314.5	31.1	1.1	-	-0.1	4.7	-0.7	-	4.6	355.2
OTHER NON- CURRENT FINANCIAL ASSETS	13.6	3.6	-1.4	-	-0.7	-	-0.1	-	-0.4	14.6
LIQUID ASSETS AND FINANCING FINANCIAL ASSETS	4.7	4.2	-	-	-	0.1	-4.1	-	-0.1	4.8
TOTAL OTHER NON CURRENT FINANCIAL ASSETS, NET	332.8	38.9	-0.3	-	-0.8	4.8	-4.9	-	4.1	374.6

(1) Impairment losses are recorded in financial income and expenses.

(2) Part of reinsurers

Non-current financial assets relating to loans and receivables

As of December 31, 2019, the main non-current financial assets in loans and receivables primarily comprised loans granted to equity-accounted joint ventures totaling €130.5 million, compared with €107.8 million as of December 31, 2018.

These loans mainly comprise loans granted to the Chinese Water concessions in the amount of €88.4 million.

Other non-current financial assets

Other non-current financial assets are classified as "Available-for-sale assets" in accordance with the principles set out in Note 8.1.2.

Other financial assets held by the Group in countries considered high-risk by the IMF are not material in amount.

8.1.2.3 MOVEMENTS IN CURRENT FINANCIAL ASSETS

Movements in other current financial assets during **2019** are as follows:

(€ million)	As of December 31, 2018	Changes in business	Changes in consolidation scope	Fair value adjustments	Impairment losses ⁽²⁾	Foreign exchange translation	Non-current / current reclassification	Transfers to Assets classified as held for sale	Other	As of December 31, 2019
Gross	279.4	-14.0	9.2	-	-	1.9	0.7	-	32.7	309.9
Impairment losses	-37.4	-	-	-	0.3	-0.4	-	-	-	-37.5
CURRENT FINANCIAL ASSETS IN LOANS AND RECEIVABLES, NET	242.0	-14.0	9.2	-	0.3	1.5	0.7	-	32.7	272.4
OTHER CURRENT FINANCIAL ASSETS	2.2	0.7	-	0.3	-	-	0.1	-	-	3.3
LIQUID ASSETS AND FINANCING FINANCIAL ASSETS	188.0	270.5	-	-	-	0.1	4.1	-	0.1	462.8
TOTAL OTHER CURRENT FINANCIAL ASSETS, NET	432.2	257.2	9.2	0.3	0.3	1.6	4.9	-	32.8	738.5

(1) Impairment losses are recorded in financial income and expenses.

(2) Part of reinsurers

The accounting treatment of other current financial assets in loans and receivables complies with the required treatment of assets at amortized cost. Other financial assets are classified as "Assets at fair value through profit or loss" in accordance with the principles set out in Note 8.1.2.

8.1.3 Cash and cash equivalents, bank overdrafts and other cash position items

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

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

Term deposit accounts and negotiable debt instruments present characteristics satisfying the requirements of IAS 7 when their yield is based on short-term money-market rates (such as Eonia) and their maturity is less than 3 months (contractually or due to an early exit option exercisable at least every 3 months and held at a low or nil cost, without loss of capital or remuneration received net of the early exit penalty of less than the yield on short-term investments).

UCITS classified in "cash equivalents" comply with Regulation (EU) 2017/1131 of the European Parliament and of the Council of June 14, 2017 on money market funds and are presumed to satisfy the cash equivalent criteria defined by IAS 7.

These UCITS can be sold daily on demand, conferring on them the characteristics of short-term, highly liquid investments that are readily convertible to known amounts of cash. These instruments are not intended to be held more than three months and offer a yield similar to the Eonia (European Overnight Index Average) interbank rate,

thereby limiting sensitivity to interest rates. The regularity of performance trends does not expose them to a material risk of change in value.

Bank overdrafts repayable on demand which form an integral part of the Group's cash management policy represent a component of cash and cash equivalents for the purposes of the Consolidated Cash Flow Statement.

Cash and cash equivalents are valued at fair value through profit or loss. Note 8.2.1 sets out the method of determining fair value. Cash and cash equivalents belong to fair value levels 1 and 2:

- instruments with a quoted price in an active market in level 1;
- other instruments that are not quoted but the fair value of which is determined using valuation techniques involving standard mathematical calculation methods integrating observable market data, in level 2.

8.1.3.1 MOVEMENTS IN CASH AND CASH EQUIVALENTS

Movements in cash and cash equivalents and bank overdrafts and other cash position items during **2019** are as follows:

(€ million)	As of December 31, 2018 represented	Changes in business	Changes in consolidation scope	Fair value adjustments (1)	Foreign exchange translation	Transfer to Assets/Liabilities classified as held for sale	Other mov- ements	As of December 31, 2019
Cash	1,030.2	385.2	36.5	-	1.2	-0.1	-3.2	1,449.8
Cash equivalents	3,526.3	864.5	2.3	-0.7	1.0	-	0.1	4,393.5
CASH AND CASH EQUIVALENTS	4,556.5	1,249.7	38.8	-0.7	2.2	-0.1	-3.1	5,843.3
Bank overdrafts and other cash position items	215.7	72.7	17.6	-	-2.6	-	-1.2	302.2
Net cash	4,340.8	1,177.0	21.2	-0.7	4.8	-0.1	-1.9	5,541.1

Cash and cash equivalents total €5,843.3 million, including €374.4 million 'subject to restrictions' as of December 31, 2019.

The increase over the year reflects mainly the proceeds from the divestiture of district energy assets in the United States of €1.1 billion.

As of December 31, 2019, the France segment held cash of €11.3 million, the Europe excluding France segment held cash of €293.6 million, the Rest of the World segment held cash of €415.0 million, the Global Businesses segment held cash of €199.7 million and the Other segment held cash of €530.2 million (including €351.3 million held by Veolia Environnement).

Surplus cash balances of other Group subsidiaries, not pooled at Veolia Environnement level, are invested in accordance with procedures defined by the Group. Note 8.3.2, "Management of liquidity risk", presents a breakdown of investments by nature.

As of December 31, 2019, cash equivalents were primarily held by Veolia Environnement in the amount of €4,284.0 million, including monetary UCITS of €2,967.8 million and term deposit accounts of €1,314.9 million.

Bank overdrafts and other cash position items consist of credit balances on bank accounts and related accrued interest payable, corresponding to brief overdrafts.



8.1.3.2 MANAGEMENT OF EQUITY RISK

As part of its cash management strategy, Veolia Environnement holds UCITS. These UCITS have the characteristics of monetary UCITS and are not subject to equity risk.

8.2 Fair value of financial assets and liabilities

8.2.1 Principles

The recognition and measurement of financial assets and liabilities is governed by IFRS 9. Fair value measurement incorporates, in particular, the risk of non-performance by the Group or its counterparties, determined based on default probabilities taken from rating agency tables.

The fair value of all financial assets and liabilities is determined at the reporting date, either for recognition in the accounts or disclosure in the Notes to the financial statements.

Fair value is determined:

- i. Based on quoted prices in an active market (level 1) or;
- ii. Using internal valuation techniques involving standard mathematical calculation methods integrating observable market data (forward rates, interest rate curves, etc.). Valuations produced by these models are adjusted to take account of a reasonable change in the credit risk of the Group or the counterparty (level 2) or;
- iii. Using internal valuation techniques integrating factors estimated by the Group in the absence of observable market data (level 3).

QUOTED PRICES IN AN ACTIVE MARKET (LEVEL 1)

When quoted prices in an active market are available, they are used in priority for the determination of the market value. Marketable securities and certain quoted bond issues are valued in this way.

FAIR VALUES DETERMINED USING MODELS INTEGRATING OBSERVABLE MARKET DATA (LEVEL 2)

The majority of derivative instruments (swaps, caps, floors, etc.) are traded over the counter and, as such, there are no quoted prices. Valuations are therefore determined using models commonly used by market participants to value such financial instruments.

Valuations calculated internally in respect of derivative instruments are tested every six months for consistency with valuations issued by our counterparties.

The fair value of unquoted borrowings is calculated by discounting contractual flows at the market rate of interest.

The net carrying amount of receivables and payables falling due within less than one year and certain floating-rate receivables and payables is considered a reasonable estimate of their fair value, due to the short payment and settlement periods applied by the Group.

The fair value of fixed-rate loans and receivables depends on movements in interest rates and the credit risk of the counterparty.

Valuations produced by these models are adjusted to take account of changes in Group credit risk.

FAIR VALUES DETERMINED USING MODELS INTEGRATING CERTAIN NON-OBSERVABLE DATA (LEVEL 3)

Derivative instruments valued using internal models integrating certain non-observable data include certain electricity derivative instruments for which there are no quoted prices in an active market (notably for electricity purchase options with extremely long maturity) or observable market data (forward prices for component materials, interest-rate curves, etc.), in particular for distant maturities.

8.2.2 Financial assets

The following tables present the net carrying amount and fair value of Group financial assets as of December 31, 2019, grouped together in accordance with IFRS 9 categories.

As of December 31, 2019

(€ million)	Note	Net carrying amount	Financial assets at fair value			Fair value	Method for determining fair value		
		Total	Assets at fair value through other comprehensive income	Assets at amortized cost	Assets at fair value through the Consolidated Income Statement	Total	Level 1	Level 2	Level 3
Non-consolidated investments		52.3	52.3	-	-	52.3	-	52.3	-
Non-current and current operating financial assets	Note 5.4	1,517.2	-	1,517.2	-	1,649.4	-	1,649.4	-
Other non-current financial assets	Note 8.1.2	374.6	-	374.6	-	374.6	-	374.6	-
Trade receivables	Note 5.3	6,849.5	-	6,849.5	-	6,849.5	-	6,849.5	-
Other current operating receivables	Note 5.3	1,298.6	-	1,298.6	-	1,298.6	-	1,298.6	-
Other current financial assets	Note 8.1.2	738.5	-	738.5	-	738.5	-	738.5	-
Non-current and current derivative instruments	Note 8.3	130.5	-	-	130.5	130.5	-	130.5	-
Cash and cash equivalents	Note 8.1.3	5,843.3	-	-	5,843.3	5,843.3	4,417.6	1,425.7	-
TOTAL		16,804.5	52.3	10,778.4	5,973.8	16,936.7	4,417.6	12,519.1	-

Level 2 cash and cash equivalents mainly consist of negotiable debt instruments and term deposit accounts.

8.2.3 Financial liabilities

The following tables present the net carrying amount and fair value of Group financial liabilities as of December 31, 2019, grouped together in accordance with IFRS 9 categories.

As of December 31, 2019

		Net carrying amount	Financial liabilities at fair value			Fair value	Method for determining fair value		
(€ million)	Note	Total	Liabilities at amortized cost	Liabilities at fair value through the Consolidated Income Statement	Liabilities at fair value through the Consolidated Income Statement and held for trading	Total	Level 1	Level 2	Level 3
Borrowings and other financial liabilities									
• non-current bond issues	Note 8.1.1	8,830.4	8,830.4	-	-	9,016.5	8,932.7	83.8	-
• current bond issues	Note 8.1.1	1,145.4	1,145.4	-	-	1,145.4	1,145.4	-	-
• other non-current borrowings	Note 8.1.1	536.4	536.4	-	-	613.7	-	613.7	-
• current borrowings	Note 8.1.1	4,298.4	4,298.4	-	-	4,298.4	-	4,298.4	-
• Non current IFRS 16 lease debt	Note 8.1.1	1,417.9	1,417.9	-	-	1,417.9	-	1,417.9	-
• Current IFRS 16 lease debt	Note 8.1.1	465.7	465.7	-	-	465.7	-	465.7	-
• bank overdrafts and other cash position items	Note 8.1.3	302.2	302.2	-	-	302.2	-	302.2	-
Trade payables	Note 5.3	5,035.9	5,035.9	-	-	5,035.9	-	5,035.9	-
Concession liabilities	Note 5.5	1,550.0	1,550.0	-	-	1,550.0	-	1,550.0	-
Non-current and current derivative instruments	Note 8.3	250.2	250.2	-	-	250.2	-	250.2	-
Other operating payables	Note 5.3	5,287.1	5,287.1	-	-	5,287.1	-	5,287.1	-
TOTAL		29,119.6	29,119.6	-	-	29,383.0	10,078.1	19,304.9	-

8.2.4 Offsetting of financial assets and financial liabilities

As of December 31, 2019, derivatives managed under ISDA or EFET agreements are the only financial assets and/or liabilities covered by a legally enforceable master netting agreement. These instruments may only be offset in the event of default by one of the parties to the agreement. They are not therefore offset in the accounts.

Such derivatives are recognized in assets in the amount of €130.5 million and in liabilities in the amount of €250.2 million in the Consolidated Statement of Financial Position as of December 31, 2019.

8.3 Market risks and financial instruments

As a result of its operational and financial activities, the Group is exposed to various financial risks, for which it has implemented management rules:

- market risks: interest rate risk, foreign exchange risk and commodity risk;
- liquidity risk;
- credit risk.

These risks are described in Chapter 5, Section 5.1, note 5.2.1.3.

Equity risk is presented in Notes 8.1.3.2 and 9.2.2.2.

Derivative instruments

To manage its exposure to market risks, Veolia uses derivatives, the majority of which are classified as hedging instruments.

Derivative instruments are recognized at fair value in the Consolidated Statement of Financial Position. Other than the exceptions detailed below, changes in the fair value of derivative instruments are recorded through profit or loss. The fair value of derivatives is estimated using standard valuation models which take into account active market data.

Net gains and losses on instruments at fair value through profit or loss consist of swapped flows and changes in the value of the instrument.

Hedge accounting is applicable if:

- the hedging relationship is precisely defined and documented at the inception date;
- the effectiveness of the hedge is demonstrated at inception and by regular verification of the offsetting nature of movements in the market value of the hedging instrument and the hedged item. The ineffective portion of the hedge is systematically recognized in the Consolidated Income Statement.

Hedge accounting relationships currently used by the Group meet the requirements of IFRS 9 and are aligned with the Group's risk management strategy and objectives.

The effectiveness of derivatives in these hedging relationships is assessed using the hypothetical derivative method: the designated derivative in each hedging relationship must enable changes in cash flows of the hedged item to be offset.

The main sources of ineffectiveness are:



- the impact of Group and counterparty credit risk on the fair value of hedging instruments, not reflected by fluctuations in the fair value of the hedged item (foreign exchange, interest rate and commodities). Pursuant to IFRS 13, the impact of credit risk on derivatives is regularly assessed. In the absence of materiality, an adjustment has never been recognized;
- changes to the timing and amount of expected cash flows from hedged transactions, in the case of transaction foreign exchange risk.

The recognition of period-on-period fair value gains and losses depends on the type of hedge accounting applied.

A **fair value hedge** is a hedge of exposure to changes in the fair value of all or a portion of a recognized asset or liability impacting net income for the period. Fair value gains and losses on hedging instruments are recognized in net income for the period. Changes in the value of the hedged item attributable to the hedged risk are also recorded in the Consolidated Income Statement for the period, to match these gains and losses (and adjust the value of the hedged item). These two remeasurements offset each other in the income statement headings, with the exception of any “ineffective portion” of the hedge.

A **cash flow hedge** is a hedge of exposure to variability in cash flows of an asset or liability or a highly probable forecast transaction impacting net income for the period. In the case of cash flow hedges, the portion of the gain or loss on the fair value remeasurement of the hedging instrument that is determined to be an effective hedge is recognized directly in other comprehensive income, while the gain or loss on the fair value remeasurement of the underlying item is not recognized in the Consolidated Statement of Financial Position. The ineffective portion of the gain or loss on the hedging instrument is recognized in profit or loss. Gains or losses recognized in other comprehensive income are reclassified to profit or loss in the same period or periods in which the asset acquired or liability issued affects profit or loss.

A **hedge of a net investment in a foreign operation** hedges the exposure to foreign exchange risk of the net assets of a foreign operation including loans considered part of the investment (IAS 21, The Effects of Changes in Foreign Exchange Rates). For this type of hedge, the effective portion of the gain or loss on the hedging instrument is recognized in translation reserves in other comprehensive income, while the ineffective portion is recognized in the Consolidated Income Statement. Gains and losses recognized in foreign exchange translation reserves are reclassified to profit or loss when the foreign investment is sold.

Certain transactions performed in accordance with the Group interest rate and foreign exchange risk management policy, but that do not satisfy hedge accounting criteria, are recorded as trading/non-qualifying instruments.

In the case of **currency hedges**, the Group only designates the “spot” component of derivatives as hedging its foreign exchange risk. As the “hedging cost” option is not applied, the premium/discount on hedging contracts is excluded from the hedging relationship and recognized separately in the financing cost.

In the case of **commodities**, purchase/sales contracts are generally recognized outside the scope of IFRS 9 (“own use” exemption), except for certain specific transactions in electricity, coal and gas. For these specific transactions, cash flow hedge accounting is systematically preferred.

The “own use” classification is applicable when the following conditions are satisfied:

- the volumes purchased or sold under the contracts reflect the operating requirements of the subsidiary;
- the contracts are not subject to net settlement as defined by IFRS 9 and, in particular, physical delivery is systematic;
- the contracts are not equivalent to sales of options, as defined by IFRS 9.

Commodity hedging instruments falling within the application scope of IFRS 9 are derivative instruments and are measured at fair value, calculated using models mostly based on observable data. Fair value gains and losses and the net impact of unwinding these transactions are recognized in operating income.

8.3.1 Market risk management

The Group uses derivatives to manage and reduce its risk exposure: the Veolia Environnement Financing and Treasury Department is directly responsible for implementing and monitoring these hedges, while the Middle and Back Office teams in the Finance Department verify transactions and monitor limits, ensuring the security of transactions processed.

The fair value of derivatives in the Consolidated Statement of Financial Position breaks down as follows:

		As of December 31, 2018 represented		As of December 31, 2019	
		Assets	Liabilities	Assets	Liabilities
(€ million)	Notes				
Interest rate derivatives	8.3.1.1	14.6	4.4	34.1	3.6
Fair value hedges		12.4	-	31.6	-
Cash flow hedges		-	0.2	0.7	0.4
Derivatives not qualifying for hedge accounting		2.2	4.2	1.8	3.2
Foreign currency derivatives	8.3.1.2	59.6	70.5	83.0	186.7
Net investment hedges		0.7	24.9	0.9	28.9
Fair value hedges		12.6	11.8	14.7	18.6
Cash flow hedges		0.6	1.0	-	3.4
Derivatives not qualifying for hedge accounting		45.7	32.8	67.4	135.8
Commodity derivatives	8.3.1.3	26.6	64.6	13.4	59.9
TOTAL DERIVATIVES		100.8	139.5	130.5	250.2
o/w non-current derivatives		31.6	55.8	39.0	52.4
o/w current derivatives		69.2	83.7	91.5	197.8

The fair value of derivatives recognized in the Consolidated Statement of Financial Position is determined (as described in Note 8.2.1) and breaks down as follows:

(€ million)	As of December 31, 2019		Level 2 (en %)		Level 3 (en %)	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Interest rate derivatives	34.1	3.6	100.0%	100.0%	-	-
Foreign currency derivatives	83.0	186.7	100.0%	100.0%	-	-
Commodity derivatives	13.4	59.9	100.0%	23.9%	-	76.1%
TOTAL DERIVATIVES	130.5	250.2	100.0%	81.8%	0.0%	18.2%

Derivatives valued using internal models integrating certain non-observable data are primarily electricity derivatives (see Note 8.3.1.3) for which there are no quoted prices in an active market (mainly electricity purchase options with extremely long maturity) or observable market data (forward prices for component materials), in particular for distant maturities. In such cases, data is estimated by Veolia experts.

(€ million)	December 31, 2018 represented		Level 2 (en %)		Level 3 (en %)	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Interest rate derivatives	14.6	4.4	100.0%	100.0%	-	-
Foreign currency derivatives	59.6	70.5	100.0%	100.0%	-	-
Commodity derivatives	26.6	64.6	100.0%	40.8%	-	59.2%
TOTAL DERIVATIVES	100.8	139.5	100.0%	72.6%	0.0%	27.4%

8.3.1.1 MANAGEMENT OF INTEREST RATE RISK

The interest rate risk management policy is centralized. The financing structure of the Group exposes it naturally to the risk of interest rate fluctuations. As such, the cash and cash equivalents position covers floating-rate debt which impacts future financial results according to fluctuations in interest rates.

Short-term debt is primarily indexed to short-term indexes (Eonia for the treasury note program and Euribor/Libor for the main short-term credit lines). Medium and long-term debt comprises both fixed and floating-rate debt.

Veolia manages a fixed/floating rate position in each currency in order to limit the impact of interest rate fluctuations on its net income and to optimize the cost of debt. For this purpose, it uses interest rate swap and swaption instruments. The Group determines the existence of an economic relationship between the hedging instrument and the hedged item taking account of reference interest rates, the frequency of coupons, the currency and the nominal amount.

These swaps may be classified as fair value hedges or cash flow hedges.

The following table shows the interest-rate exposure of gross debt (defined as the sum of non-current borrowings, current borrowings and bank overdrafts and other cash position items) before and after hedging.

	As of December 31, 2018 represented		As of December 31, 2019	
	Outstandings	% total debt	Outstandings	% total debt
<i>(€ million)</i>				
Fixed rate	12,212.4	74.9%	12,403.0	73.0%
Floating rate	4,095.3	25.1%	4,593.4	27.0%
Gross debt before hedging	16,307.7	100.0%	16,996.4	100.0%
Fixed rate	11,685.1	71.7%	11,880.4	69.9%
Floating rate	4,622.6	28.3%	5,116.0	30.1%
Gross debt before hedging and fair value remeasurement of fixed-rate debt	16,307.7	100.0%	16,996.4	100.0%
Fair value adjustments to (assets)/liability hedging derivatives	6.1		-4.0	
GROSS DEBT AT AMORTIZED COST	16,313.8		16,992.4	

Total gross debt as of December 31, 2019, after hedging, is 69.9% fixed-rate and 30.1% floating-rate.

As of December 31, 2019, the Group has cash and cash equivalents of €5,843.3 million, the majority of which bears interest at floating rates.

The Group manages its exposure to interest rate fluctuations based on floating-rate gross debt net of cash.

The Group's net floating-rate position after hedging (asset position) is €1,195.0 million, maturing €2,191.5 million in less than one year, -€207.0 million in 1 to 5 years and -€789.5 million after 5 years.

Interest rate fair value hedges

The risk of volatility in the value of debt is hedged by fixed-rate receiver/floating-rate payer swaps which change bond issues to floating-rate debt (see Note 8.1.1.1) recorded in non-current and current borrowings.

Fair value hedging swaps represent a notional outstanding amount of €500 million as of December 31, 2019, unchanged on December 31, 2018, with a net fair value in the Consolidated Statement of Financial Position of +€31.6 million as of December 31, 2019, compared with +€12.4 million as of December 31, 2018, as follows:



Fixed-rate receiver / floating-rate payer swaps (€ million)	Notional contract amount by maturity				Fair value of derivatives	
	Total	< 1 year	from 1 to 5 years	> 5 years	Total assets	Total liabilities
As of December 31, 2019	500.0	-	-	500.0	31.6	-
As of December 31, 2018	500.0	-	-	500.0	12.4	-

As of December 31, 2019, accumulated fair value hedging adjustments to bond issues included in their net carrying amount totaled -€189.7 million.

The +€19.2 million increase in fair value is due to the fall in euro forward rates during the period. It is offset by the fair value remeasurement of the debt relating to the hedged risk in the amount of -€19.2 million. A review of the inefficiency of these hedging instruments did not give rise to any material impacts.

Interest rate cash flow hedges

The Group has entered into interest rate swaps to fix the cost of existing floating-rate debt or the cost of future debt issues.

Contractual flows are paid to match interest flows on the hedged borrowings. The amount recorded in equity is released to net income in the period in which interest flows on the debt impact the Consolidated Income Statement.

Cash flow hedging swaps represent a notional outstanding amount of €510 million as of December 31, 2019, compared with €12 million as of December 31, 2018, with a net fair value of +€0.3 million as of December 31, 2019, compared with -€0.2 million as of December 31, 2018.

The change in the nominal amount of the cash flow hedging portfolio is due to the set up-of fixed-rate payer swaps in the amount of €500 million hedging the aggregate exposure resulting from the 2026 bond issue and the fair value swaps backing this issue.

Efficiency was measured and the change in value was assessed in full. Efficiency was measured and the change in value was deferred in fair value reserves in full.

Floating-rate receiver / fixed-rate payer swaps / purchases of caps (€ million)	Notional contract amount by maturity				Fair value of derivatives	
	Total	< 1 year	from 1 to 5 years	> 5 years	Total assets	Total liabilities
As of December 31, 2019	510.0	-	501.5	8.5	0.7	0.4
As of December 31, 2018	12.1	-	2.3	9.8	-	0.2

An amount of -€24.8 million, net of tax, was recorded directly in equity attributable to owners of the Company in respect of cash flow hedge interest-rate derivatives as of December 31, 2019. -€3.9 million was released from equity to net income as of December 31, 2019.

Contractual flows on interest rate swaps are paid at the same time as contractual flows on floating-rate borrowings and the amount recorded in other comprehensive income is released to net income in the period in which interest flows on the debt impact the Consolidated Income Statement.

Interest-rate derivatives not qualifying for hedge accounting

A certain number of derivatives do not qualify as hedges under IFRS 9. The Group does not, however, consider these transactions to be of a speculative nature and views them as necessary for the effective management of its exposure to interest rate risk.

(en millions d'euros)	Notional amount as of December 31, 2019				Fair value of derivatives	
	Total	< 1 year	from 1 to 5 years	> 5 years	Total assets	Total liabilities
Total firm financial instruments	43.1	-	43.1	-	1.8	3.2
Total optional financial instruments	-	-	-	-	-	-
TOTAL INTEREST-RATE DERIVATIVES NOT QUALIFYING FOR HEDGE ACCOUNTING	43.1	-	43.1	-	1.8	3.2

The decrease in the portfolio of interest rate derivatives not qualifying for hedge accounting between 2018 and 2019 is mainly due to the expiry at maturity of short-term financial instruments hedging cash investments totaling approximately €538 million.

Recap: the breakdown as of **December 31, 2018** is as follows:

(€ million)	Notional amount as of December 31, 2018 represented				Fair value of derivatives	
	Total	< 1 year	from 1 to 5 years	> 5 years	Total assets	Total liabilities
Total firm financial instruments	585.2	538.4	31.6	15.2	2.2	4.2
Total optional financial instruments	-	-	-	-	-	-
TOTAL INTEREST-RATE DERIVATIVES NOT QUALIFYING FOR HEDGE ACCOUNTING	585.2	538.4	31.6	15.2	2.2	4.2



8.3.1.2 MANAGEMENT OF FOREIGN EXCHANGE RISK

The Group's international activities generate significant foreign currency flows.

The Group's central treasury department manages foreign exchange risk centrally within limits set by the Chief Finance Officer.

Foreign exchange risk, as defined by IFRS 7, mainly results from:

- a) Foreign currency-denominated purchases and sales of goods and services relating to operating activities and the related hedges (e.g. currency forwards). The Group has no significant exposure to foreign exchange transaction risk. Indeed, the activities of the Group are performed by subsidiaries operating in their own country and their own currency. Exposure to foreign exchange risk is therefore naturally limited;
- b) Foreign currency-denominated financial assets and liabilities including foreign currency-denominated loans/borrowings and related hedges (e.g. forex swaps). With many operations worldwide, Veolia organizes financing in local currencies. In the case of inter-company financing, these credit lines can generate foreign exchange risk. In order to limit the impact of this risk, Veolia has developed a policy which seeks to back foreign-currency financing and foreign currency derivatives with inter-company receivables denominated in the same currency. The asset exposure hedging strategy primarily involves hedging certain net foreign investments and ensuring that Group companies do not have a material balance sheet foreign exchange position that could generate significant volatility in foreign exchange gains and losses;
- c) Investments in foreign subsidiaries reflected by the translation of accounts impacting the translation reserves.

The Group determines the economic relationship between the hedging instrument and the hedged item by comparing changes in the value of the hedging instrument attributable to a change in the spot foreign exchange rate with the impact of changes in this same rate on the hedged instrument. It is Group policy to align the key characteristics of hedging instruments (currency, nominal amount, maturity, etc.) with the hedged item.

Foreign exchange risk with regard to the net finance cost

With many operations worldwide, Veolia organizes financing in local currencies.

The foreign currency debt borne by the parent company, Veolia Environnement SA, is generally hedged using either derivative instruments or assets in the same currency.

The Group's net finance cost, i.e. a euro-equivalent of -€440.6 million in 2019, is primarily denominated in EUR (38%), GBP (11%), USD (10%), CNY (4%), PLN (4%) and HKD (2%).

A 10% appreciation in the main currencies to which the Group is exposed (GBP, USD, PLN, HKD and CNY) against the euro would generate a €15.1 million increase in the net finance cost, while a 10% depreciation in these currencies would generated a €12.3 million decrease in the net finance cost.

Translation risk

Due to its international presence, the translation of the income statements of the Group's foreign subsidiaries is sensitive to exchange rate fluctuations.

The following table summarizes the sensitivity of certain Group Consolidated Income Statement aggregates to a 10% increase or decrease in foreign exchange rates against the euro, with regard to the translation of financial statements of foreign subsidiaries.

(€ million)	Contribution to the consolidated financial statements									Sensitivity to a change of :	
	Euro	Pound Sterling	US dollar	Polish zloty	Czech crown	Australian dollar	Chinese renminbi yuan	Other currencies	Total	10%	-10%
Revenue	13,075.9	2,302.4	2,449.1	1,086.4	1,040.1	1,047.5	935.1	5,252.2	27,188.7	1,556.6	1,273.6
Operating income	425.7	183.5	122.4	117.6	118.0	13.6	245.3	238.7	1,464.8	114.6	93.8

Foreign exchange and translation risk in the Consolidated Statement of Financial Position

Due to its international presence, the Group's Consolidated Statement of Financial Position is exposed to exchange rate fluctuations. A fluctuation in the euro impacts the translation of subsidiary foreign currency denominated assets in the Consolidated Statement of Financial Position.

For its most significant assets, the Group has issued debt in the relevant currencies. The main net assets of the Group are located in the United States, the United Kingdom, China, Poland and the Czech Republic.

A 10% appreciation in the currencies of the above countries would increase net assets by €487 million, while a 10% depreciation in these currencies would reduce net assets by €398 million.

Hedge of a net investment in a foreign operation

Financial instruments designated as net investment hedges break down as follows:

Financial instrument (€ million)	Notional amounts as of December 31, 2019 by maturity date				Fair value of derivatives	
	Amount	Less than 1 year	from 1 to 5 years	More than 5 years	Total assets	Total liabilities
Currency payer swap	133.9	133.9	-	-	0.2	4.0
Currency receiver swap	25.4	25.4	-	-	0.7	-
Options	1,323.7	1,323.7	-	-	-	20.1
Embedded derivatives (forward sale)	-	-	-	-	-	-
Cross currency swaps	60.0	-	-	60.0	-	4.8
Total foreign currency derivatives	1,543.0	1,483.0	-	60.0	0.9	28.9
USD borrowings	-	-	-	-	N/A	N/A
CNY borrowings	-	-	-	-	N/A	N/A
Total financing	-	-	-	-	N/A	N/A
TOTAL	1,543.0	1,483.0	-	60.0	0.9	28.9

The above currency swaps are short-term but are generally renewed at maturity, until financing of an appropriate term is secured in the currency of the related country.

Options are hedging strategies using collars.



It is Group policy to hedge the net investment only in the nominal amount of the foreign currency debt financing the securities.

Inter-company loans and receivables forming part of a foreign investment (IAS 21) are nearly systematically hedged by foreign currency external financing or foreign currency derivatives (cross currency swaps, currency forwards, collars) meeting IFRS 9 criteria for hedge accounting. Foreign exchange gains and losses recorded in foreign exchange translation reserves in respect of hedging instruments are systematically offset by foreign exchange gains and losses recognized in foreign exchange translation reserves on loans forming part of the net investment, unless:

- the inter-company loan forming part of the net investment in a foreign operation is not hedged;
- the hedge is partially ineffective due to a difference between the nominal amount of the hedge and the amount of the hedged net asset;
- only the net assets of the foreign subsidiary (excluding the loan forming part of the net investment) are hedged.

A break-down of foreign exchange gains and losses recorded in Group foreign exchange translation reserves as of December 31, **2019** is presented in Note 9.2.4.

Recap: the breakdown as of December 31, 2018 is as follows:

Financial instrument (€ million)	Notional amounts As of December 31, 2018 represented by maturity date				Fair value of derivatives	
	Amount	Less than 1 year	from 1 to 5 years	More than 5 years	Total assets	Total liabilities
Currency payer swap	147.1	132.2	14.9	-	-	2.1
Options	2.4	2.4	-	-	-	0.1
Embedded derivatives (forward sale)	1,311.2	1,311.2	-	-	0.6	21.9
Cross currency swaps	60.0	-	-	60.0	0.1	0.8
Total foreign currency derivatives	1,520.7	1,445.8	14.9	60.0	0.7	24.9
USD borrowings	-	-	-	-	N/A	N/A
CNY borrowings	-	-	-	-	-	-
Total financing	-	-	-	-	N/A	N/A
TOTAL	1,520.7	1,445.8	14.9	60.0	0.7	24.9

Foreign currency fair value hedges

Financial instruments designated as fair value hedges break down as follows:

Financial instrument (€ million)	Notional amounts as of December 31, 2019 by maturity date				Fair value of derivatives	
	Amount	Less than 1 year	from 1 to 5 years	More than 5 years	Total assets	Total liabilities
Forward purchases	216.7	166.6	50.1	-	8.0	2.4
Forward sales	826.6	408.1	418.5	-	6.7	16.2
FOREIGN CURRENCY DERIVATIVES : FAIR VALUE HEDGE	1,043.3	574.7	468.6	-	14.7	18.6

The fair value hedges presented above mainly consist of cross currency swaps and foreign currency swaps hedging balance sheet items and mainly hedges of internal financing or construction contracts for water treatment plants. The impact of these hedges is offset by the remeasurement of the underlying items.

Financial instrument (€ million)	Notional amounts As of December 31, 2018 represented by maturity date				Fair value of derivatives	
	Amount	Less than 1 year	from 1 to 5 years	More than 5 years	Total assets	Total liabilities
Forward purchases	205.8	153.3	52.5	-	9.4	1.5
Forward sales	299.0	269.2	29.8	-	3.2	10.3
FOREIGN CURRENCY DERIVATIVES : FAIR VALUE HEDGE	504.8	422.5	82.3	-	12.6	11.8

Foreign currency cash flow hedges

Financial instruments designated as cash flow hedges break down as follows:

Financial instrument (€ million)	Notional amounts as of December 31, 2019 by maturity date				Fair value of derivatives	
	Amount	Less than 1 year	from 1 to 5 years	More than 5 years	Total assets	Total liabilities
Forward purchases	69.4	63.3	6.1	-	-	-
Forward sales	159.1	129.6	29.5	-	-	3.4
FOREIGN CURRENCY DERIVATIVES : CASH FLOW HEDGE	228.5	192.9	35.6	-	-	3.4

The cash flow hedges presented above mainly consist of forward purchases/sales of foreign currencies different from the functional currencies of the entities concerned, in connection with their own activities.

They mainly include currency hedges in respect of commodity purchases and sales in Central Europe.

Financial instrument (€ million)	Notional amounts As of December 31, 2018 by maturity date				Fair value of derivatives	
	Amount	Less than 1 year	from 1 to 5 years	More than 5 years	Total assets	Total liabilities
Forward purchases	25.6	23.5	2.1	-	0.4	-
Forward sales	120.0	97.2	22.8	-	0.2	1.0
FOREIGN CURRENCY DERIVATIVES : CASH FLOW HEDGE	145.6	120.7	24.9	-	0.6	1.0



Hedges of currency exposure in the Consolidated Statement of Financial Position by derivatives not qualifying for hedge accounting

Financial instrument (€ million)	Notional amounts as of December 31, 2019 by maturity date				Fair value of derivatives	
	Amount	Less than 1 year	from 1 to 5 years	More than 5 years	Total assets	Total liabilities
Currency receiver swaps and forward purchases	4,038.4	3,982.0	56.4	-	53.9	13.9
Currency paper swaps and forward purchases	6,873.7	6,643.5	230.2	-	13.5	120.0
Currency options	-	-	-	-	-	-
Embedded derivatives	4.6	4.6	-	-	-	1.9
FOREIGN CURRENCY DERIVATIVES NOT QUALIFYING FOR HEDGE ACCOUNTING	10,916.7	10,630.1	286.6	-	67.4	135.8

The above portfolio of foreign currency derivatives was mainly contracted by Veolia Environnement to hedge its foreign currency-denominated net financial debt (comprising foreign currency-denominated borrowings and foreign currency-denominated inter-company loans and borrowings).

Financial instrument (€ million)	Notional amounts As of December 31, 2018 by maturity date				Fair value of derivatives	
	Amount	Less than 1 year	from 1 to 5 years	More than 5 years	Total assets	Total liabilities
Currency receiver swaps and forward purchases	2,098.8	2,077.7	21.1	-	1.8	9.3
Currency paper swaps and forward purchases	6,047.1	5,876.6	170.5	-	43.9	14.4
Currency options	-	-	-	-	-	-
Embedded derivatives	24.8	20.3	4.5	-	-	9.1
FOREIGN CURRENCY DERIVATIVES NOT QUALIFYING FOR HEDGE ACCOUNTING	8,170.7	7,974.6	196.1	-	45.7	32.8

8.3.1.3 MANAGEMENT OF COMMODITY RISK

Energy, commodity and consumable purchases represent a major operating expense for the Group's businesses, in particular diesel for waste collection, coal and gas for the supply of energy services, and electricity for water treatment and distribution. The Group is therefore exposed to fluctuations in their price.

The long-term contracts entered into by Veolia generally include price review and/or indexation clauses which enable it to pass on the majority of any increases in commodity or fuel prices to the price of services sold to customers, even if this may be performed with a time delay.

Nonetheless, as part of supply management and cost optimization measures or to hedge future production, certain Group subsidiaries may be required, depending on their activities, to contract forward purchases or sales of commodities and set-up derivatives to fix the cost of commodities supply or the selling price of commodities produced (electricity). The majority of these commitments are reciprocal; the third parties concerned are obliged to deliver the quantities negotiated in these contracts and the Group is obliged to take them.

These transactions form part of the Group's commodity risk management policy, which seeks to establish a progressive hedge over three years (where possible) in order to limit results volatility.

As of December 31, 2019, the fair value of commodity derivatives is recorded €13.4 million in assets and €59.9 million in liabilities.

	As of December 31, 2018 represented		As of December 31, 2019	
(€ million)	Assets	Liabilities	Assets	Liabilities
Commodity derivatives	26.6	64.6	13.4	59.9
Electricity	25.6	63.8	13.4	56.6
Petroleum products	-	-	-	-
CO ₂	-	-	-	-
Coal	0.8	0.2	-	1.7
Gas	0.2	0.6	-	1.6
Other	-	-	-	-

These derivatives break down by hedge type as follows:

	As of December 31, 2018 represented		As of December 31, 2019	
(€ million)	Assets	Liabilities	Assets	Liabilities
Commodity derivatives	26.6	64.6	13.4	59.9
Fair value hedges	-	-	-	-
Cash flow hedges	1.0	0.8	-	3.3
Derivatives not qualifying for hedge accounting	25.6	63.8	13.4	56.6

Electricity risk



Some subsidiaries enter into electricity transactions (forward contracts, options) which are recognized as derivative instruments in accordance with IFRS 9.

Contract notional amounts As of December 31, 2019 by maturity date

(€ million)	Total amount	Less than 1 year	from 1 to 5 years	More than 5 years
Electricity purchase instrument :				
• in Gwh	5,158	1,321	3,154	683
• in € million	181	54	106	21
Electricity sales instrument :				
• in Gwh	1,899	1,255	644	0
• in € million	87	55	32	0

Electricity purchase and sales instruments maturing in 2020 have a market value of –€13 million (based on valuation assumptions at the reporting date). Instruments maturing after 2020 have a market value of –€30 million. These transactions are recorded in the Consolidated Statement of Financial Position at fair value based on the quoted price of commodities with similar maturities and using internal models integrating non-observable data in the absence of a liquid market.

A 10% increase or decrease in the price of electricity (all other things being equal) would have an impact on net income of +€7 million and –€5.5 million, respectively.

Contract notional amounts As of December 31, 2018 represented by maturity date

(€ million)	Total amount	Less than 1 year	from 1 to 5 years	More than 5 years
Electricity purchase instrument :				
• in Gwh	5,264	1410	2,773	1,081
• in € million	201	56	104	41
Electricity sales instrument :				
• in Gwh	1,666	845	821	-
• in € million	67	33	34	-

Greenhouse gases

The increase in greenhouse gases in the atmosphere led certain States and the international community to introduce regulatory measures to limit this trend. Under European regulations, the actual emissions position is determined each year and the corresponding rights surrendered. The Group then purchases or sells emission rights, depending on whether actual emissions are greater or lesser than emission rights allocated.

In the absence of specific IFRS provisions, the Group has adopted the “net liability approach,” which involves the recognition of a liability at the period end if actual emissions exceed allowances held, in accordance with IAS 37.

Allowances are managed as a production cost and, in this respect, are recognized in inventories at:

- nil value, when they are received free of charge;
- acquisition cost, if purchased for valuable consideration on the market.

Consumption of this inventory is recognized on a weighted-average unit cost basis.

Transactions in these allowances performed on the forward market are generally recognized outside the application scope of IFRS 9 ("own use" exemption), except for certain specific transactions related to the hedging of electricity production activities.

The position in **2019** is as follows:

Volumes (in thousands of metric tons)	As of January 1, 2019	Changes in scope of consolidation	Granted	Purchased/ Sold/ Cancelled	Used	As of December 31, 2019
TOTAL	1,015	0	2,054	4,784	-7,369	484

Free allocations still to be received in respect of phase III of the Emissions Trading Scheme for 2020 are estimated at €31 million for the Group, based on a valuation at the forward price as of December 31, 2019.

8.3.2 Management of liquidity risk

The operational management of liquidity and financing is managed by the Treasury and Financing Department. This management involves the centralization of major financing in order to optimize liquidity and cash.

The Group secures financing on international bond markets, international private placement markets, the treasury note market and the bank lending market.

8.3.2.1 MATURITY OF FINANCIAL LIABILITIES

As of December 31, 2019, undiscounted contractual flows on net financial debt (nominal value) break down by maturity date as follows:

As of December 31, 2019			Maturity of undiscounted contractual flows					
(€ million)	Carrying amount	Total undiscounted contractual flows	2020	2021	2022	2023	2024	Beyond 5 years
Bond issues ⁽¹⁾	9,975.8	10,076.8	1,132.9	648.0	1,305.2	615.0	758.0	5,617.7
Other borrowings	5,135.7	5,134.1	4,600.7	119.8	82.9	93.8	28.5	208.4
Gross borrowings excluding IFRS 16 and the impact of amortized cost and hedging derivatives	15,111.5	15,210.9	5,733.6	767.8	1,388.1	708.8	786.5	5,826.1
IFRS 16 Lease debt	1,883.6	2,081.9	498.5	365.5	285.2	216.5	163.3	552.9
Gross borrowings excluding the impact of amortized cost and hedging derivatives	16,995.1	17,292.8	6,232.1	1,133.3	1,673.3	925.3	949.8	6,379.0
Impact of derivatives hedging debt	-4.0	-	-	-	-	-	-	-
Gross borrowings	16,991.1	-	-	-	-	-	-	-
Cash and cash equivalents	-5,843.3							
Liquid assets and financing financial assets	-467.6							
Net financial debt	10,680.2							

⁽¹⁾ Excluding the impact of amortized cost and derivatives hedging debt.

8.3.2.2 NET LIQUID ASSET POSITIONS

Net liquid assets of the Group as of December 31, 2019 break down as follows:

(€ million)	As of December 31, 2018 represented	As of December 31, 2019
Veolia Environnement:		
Undrawn MT syndicated loan facility	3,000.0	3,000.0
Undrawn MT bilateral credit lines	925.0	1,000.0
Undrawn ST bilateral credit lines	-	100.0
Letters of credit facility	64.7	86.8
Cash and cash equivalents ⁽¹⁾	3,510.6	4,635.5
Subsidiaries :	-	-
Cash and cash equivalents ⁽¹⁾	1,238.7	1,675.5
TOTAL LIQUID ASSETS	8,739.0	10,497.8
Current debt and bank overdrafts and other cash position items	-	-
Current debt	5,018.8	5,909.5
Bank overdrafts and other cash position items	215.7	302.2
TOTAL CURRENT DEBTS AND BANK OVERDRAFTS AND OTHER CASH POSITION ITEMS	5,234.5	6,211.7
TOTAL LIQUID ASSETS NET OF CURRENT DEBTS AND BANK OVERDRAFTS AND OTHER CASH POSITION ITEMS (1)	3,504.5	4,286.1

(1) Including liquid assets and finance-related assets included in Net Financial Debt

As of December 31, 2019, Veolia has total liquid assets of €10.5 billion, including cash and cash equivalents of €6.3 billion.

As of December 31, 2019, cash equivalents are mainly held by Veolia Environnement in the amount of €4,284.0 million. They comprise monetary UCITS of €2,967.8 million and term deposit accounts of €1,314.9 million.

Improved credit outlook

At the end of January 2019, S&P confirmed its rating at A-2/BBB with a stable outlook.

In February 2019, Moody's confirmed Veolia Environnement's credit rating at P-2/Baa1 with a stable outlook.

Refinancing of the multi-currency liquidity lines

On November 6, 2015, Veolia signed a new multi-currency syndicated loan facility for an amount of €3 billion. The initial maturity of 2020 was extended to 2022 in October 2017. It may be drawn in eastern European currencies and Chinese renminbi.

Renewal of bilateral credit lines

In October 2017, the multi-currency syndicated loan facility initially secured on November 2, 2015 for an amount of €3 billion and with a maturity of 2020, was extended to 2022. It may be drawn in eastern European currencies and Chinese renminbi.



This syndicated loan facility was not drawn as of December 31, 2019.

Renewal of bilateral credit lines

Veolia Environnement has bilateral credit lines for a total undrawn amount of €1,100 million as of December 31, 2019.

Veolia Environnement may draw on the multi-currency syndicated loan facility and all credit lines at any time.

Undrawn confirmed credit lines mature as follows:

(€ million)	As of December 31, 2019	Maturing in					
	Total	2020	2021	2022	2023	2024	2025
Undrawn syndicated loan facility	3,000.0	-	-	3,000.0	-	-	-
Credit lines	1,100.0	100.0	100.0	300.0	200.0	100.0	300.0
Letters of credit facility	86.8	-	86.8	-	-	-	-
TOTAL	4,186.8	100.0	186.8	3,300.0	200.0	100.0	300.0

8.3.2.3 INFORMATION ON EARLY DEBT REPAYMENT CLAUSES

Veolia Environnement debt

The legal documentation for bank financing and bond issues contracted by the Company does not contain any financial covenants, i.e. obligations to comply with a debt coverage ratio or a minimum credit rating which, in the event of non-compliance, could lead to the early repayment of the relevant financing.

Subsidiary debt

Certain project financing or financing granted by multilateral development banks to the Group's subsidiaries contain financial covenants (as defined above).

Based on diligences performed within the subsidiaries, the Company considers that the covenants included in the documentation of material financing were satisfied (or had been waived by lenders) as of December 31, 2019.

8.3.3 Management of credit risk

The Group is exposed to counterparty risk in various areas: its operating activities, cash investment activities and derivatives.

8.3.3.1 COUNTERPARTY RISK RELATING TO OPERATING ACTIVITIES

Credit risk must be considered separately with respect to operating financial assets and operating receivables. Credit risk on operating financial assets is appraised via the rating of primarily public customers. Credit risk on other operating receivables is appraised through an analysis of risk dilution and late payments for private customers and exceptionally, for public customers, by a credit analysis.

Group customer credit risk analysis may be broken down into the following four categories (Public customers - Delegating authority, Private customers - Individuals, Public customers - Other and Private customers - Companies):

As of December 31, 2019					Breakdown by customer type			
(€ million)	Note	Gross carrying amount	Impairment losses	Net carrying amount	Public customers - Delegating authority	Private customers - Individuals	Public customers - Other	Private customers - Companies
Non-current and current operating financial assets	5.4	1,597.5	-80.3	1,517.2	1,190.9	-	36.7	289.6
Trade receivables	5.3	7,698.0	-848.5	6,849.5	1,055.2	1,543.5	1,404.9	2,845.9
Other current operating receivables	5.3	1,372.9	-74.3	1,298.6	102.5	47.8	53.3	1,095.0
Non-current financial assets in loans and receivables	8.1.2	427.8	-72.7	355.2	27.5	8.3	13.9	305.5
Current financial assets in loans and receivables	8.1.2	309.9	-37.5	272.4	30.7	14.7	22.5	204.5
LOANS AND RECEIVABLES		11,406.1	-1,113.3	10,292.9	2,406.8	1,614.3	1,531.3	4,740.5
Other financial assets	8.1.2	495.0	-9.5	485.5	9.9	1.4	0.2	474.0
TOTAL AS OF DECEMBER 31, 2019		11,901.1	-1,122.8	10,778.4	2,416.7	1,615.7	1,531.5	5,214.5
TOTAL AS OF DECEMBER 31, 2018 REPRESENTED		10,417.9	-1,041.5	9,376.4	2,165.9	1,486.3	1,533.4	4,190.8

Assets past due and not impaired break down as follows:



Assets past due but not impaired						
	Note	Net carrying amount	Amount not yet due	0-6 months	6 months – 1 year	More than 1 year
<i>(€ million)</i>						
Non-current and current operating financial assets	5.4	1,517.2	1,507.5	3.0	3.7	3.0
Trade receivables	5.3	6,849.5	4,842.0	1,527.6	217.8	262.1
Other current operating receivables	5.3	1,298.6	1,123.7	69.9	43.1	61.9
Non-current financial assets in loans and receivables	8.1.2	355.2	355.2	-	-	-
Current financial assets in loans and receivables	8.1.2	272.4	237.2	8.0	2.4	24.8
LOANS AND RECEIVABLES as of December 31, 2019	-	10,292.9	8,065.6	1,608.5	267.0	351.8
Other non-current and current financial assets	8.1.2	485.5	485.5	-	-	-
TOTAL AS OF DECEMBER 31, 2019	-	10,778.4	8,551.1	1,608.5	267.0	351.8
TOTAL AS OF DECEMBER 31, 2018 REPRESENTED	-	9,376.4	7,077.5	1,874.6	240.6	183.7

Assets past due over six months are mainly concentrated in Italy, France, Morocco and Mexico concentrated and due to local authorities.

In Morocco, net trade receivables total €162.0 million as of December 31, 2019, out of which €34.5 million over six months.

8.3.3.2 COUNTERPARTY RISK RELATING TO INVESTMENT AND HEDGING ACTIVITIES

The Group is exposed to credit risk relating to the investment of its surplus cash and its use of derivative instruments in order to manage interest rate and foreign exchange risk. Credit risk corresponds to the loss that the Group may incur should a counterparty default on its contractual obligations. In the case of derivative financial instruments, this risk corresponds to the fair value of all the instruments contracted with a counterparty insofar as this value is positive.

The Group minimizes counterparty risk through internal control procedures limiting the choice of banking counterparties to leading banks and financial institutions (banks and financial institutions with a minimum Moody's, Standard & Poor's or Fitch's rating of A3/P3/F3 respectively for transactions with a term of less than one year and of A2/A/A respectively for transactions with a term of more than one year, unless justified). Limits are determined for each counterparty based primarily on the rating awarded by the rating agencies, the size of their equity and commitments given to the Group and are reviewed regularly. In addition, new derivative transactions must only be entered into with counterparties with whom the Group has an ISDA or FBF framework agreement.

Counterparty risk on financial transactions is monitored on an ongoing basis by the middle-office within the Group Finance Department. The Group is not exposed to any risk as a result of material concentration.

Veolia Environnement cash surpluses (€5.3 billion as of December 31, 2019) are managed with a profitability objective close to that of the money market, avoiding exposure to capital risk and maintaining a low level of volatility.

They were injected into the following types of investment:

- UCITS satisfying the AMF cash and cash equivalents classification for €2,967.8 million;
- term deposit accounts classified as cash equivalents, mainly with leading international banks, with a short-term rating from Standard & Poor's, Moody's or Fitch of A3/P3/F3, for €1,341.9 million.

8.4 Financial income and expenses

8.4.1 Cost of net financial debt

Finance costs consist of interest payable on borrowings calculated using the amortized cost method and losses on interest rate derivatives, both qualifying and not qualifying as hedges.

Interest costs included in payments under lease finance contracts are recorded using the effective interest rate method.

Finance income consists of gains on interest rate derivatives, both qualifying and not qualifying as hedges and income from cash investments and equivalents.

Interest income is recognized in profit or loss when earned, using the effective interest method.

Finance costs and finance income represent the cost of borrowings net of income from cash and cash equivalents. In addition, net finance costs include net gains and losses on derivatives allocated to borrowings, irrespective of whether they qualify for hedge accounting.

Finance income totals €45.5 million, while finance expenses total -€486.0 million in 2019.

The cost of net financial debt presented in the Consolidated Cash Flow Statement reflects the cost of net financial debt of continuing operations presented above and the cost of net financial debt of discontinued operations of nil in 2019.

The heading "Interest paid" in the Consolidated Cash Flow Statement reflects the cost of net financial debt of continuing and discontinued operations adjusted for accrued interest of €1.9 million and fair value adjustments to hedging derivatives of -€14.9 million in 2019.

(€ million)	As of December 31, 2018 represented	2019
Expenses on gross debt	-318.7	-348.4
Assets at fair value through the Consolidated Income Statement (fair value option) *	12.9	13.3
Net gains and losses on derivative instruments, hedging relationships and other	-108.1	-105.4
COST OF NET FINANCIAL DEBT	-413.9	-440.5

* Cash equivalents are valued at fair value through the Consolidated Income Statement

Net gains and losses on derivative instruments, hedging relationships and other mainly include the following amounts for fiscal year **2019**:

- a net interest expense on hedging relationships (fair value hedges and cash flow hedges) of -€0.6 million;
- net losses on derivatives not qualifying for hedge accounting of -€102.9 million, mainly on foreign currency derivatives.

In addition, the charge relating to the ineffective portion of net investment hedges and cash flow hedges was not material in 2019 or 2018.

8.4.2 Other financial income and expenses

Other financial income and expenses primarily include capital gains and losses on disposals of financial assets, net of disposal costs, the unwinding of discounts on provisions, interests on concession liabilities, interest on IFRS 16 lease debt.

(€ million)	As of December 31, 2018 represented	2019
Net gains and losses on loans and receivables	14.0	13.1
Capital gains and losses on disposals of financial assets, net of disposal costs	3.7	325.8
Net gains and losses on available-for-sale assets ⁽¹⁾	4.6	3.4
Assets and liabilities at fair value through the Consolidated Income Statement	-0.1	0.3
Unwinding of the discount on provisions	-30.4	-31.3
Foreign exchange gains and losses	-10.6	-4.4
Interests on concession liabilities	-94.2	-81.3
Interests on IFRS 16 lease debt	-45.5	-40.8
Other	-33.6	-38.1
OTHER FINANCIAL INCOME AND EXPENSES	-192.1	146.7

(1) Including dividends received of €3.4 million as of December 31, 2019, compared with €4.6 million as of December 31, 2018.

In **2019**, other financial income and expenses include the impact of:

- the divestiture of heating and cooling networks in the United States of €269.0 million before tax;
- the divestiture of Foshan for €36.4 million;
- the divestiture of Transdev for €32.7 million.

In **2018**, other financial income and expenses include the impact of:

- fair value remeasurement and sundry financial divestitures in the Czech Republic in 2018 for -€48.3 million;
- the divestiture of Veolia ES Industrial Services Inc. for €36.6 million;
- the divestiture of Juijang in China for €18.5 million.

8.5 Financing commitments

8.5.1 Commitments given

Debt guarantees: these relate to guarantees given to financial institutions in connection with the borrowings of non-consolidated companies and equity-accounted entities, when the commitment covers the entire amount.

Letters of credit: letters of credit delivered by financial institutions to Group creditors, customers and suppliers guaranteeing operating activities.

Off-balance sheet commitments given break down as follows:

	As of December 31, 2018	As of December 31, 2019	Maturing in		
			Less than 1 year	1 to 5 years	More than 5 years
(€ million)					
Letters of credit	32.3	39.6	27.7	2.9	9.0
Debt guarantees	32.3	35.1	15.3	6.8	13.0
Other financing commitments given	77.1	43.9	8.7	27.5	7.7
TOTAL FINANCING COMMITMENTS GIVEN	141.7	118.6	51.7	37.2	29.7

Commitments on lease contracts entered into by the Group are analyzed in Note 7.3.

Commitments given in respect of joint ventures (at 100%) total €3.7 million as of December 31, 2019 against €3.6 million as of December 31, 2018.

8.5.2 Commitments received

Commitments received total €134.8 million as of December 31, 2019 and €117.1 million as of December 31, 2018.

8.5.3 Collateral guaranteeing borrowings

As of December 31, 2019, the Group has given €148.0 million of collateral guarantees in support of borrowings including €98.8 million in support of borrowings of its joint ventures.

The breakdown by type of asset is as follows (€ million):

Type of pledge /mortgage (€ million)	Amount pledged (a)	Total Consolidated Statement of Financial Position (b)	Corresponding % (a)/(b)
Tangible assets	18	7,680	0.2%
Financial assets *	109	1,165	9.4%
TOTAL NON CURRENT ASSETS	127	8,845	
Current assets	21	16,926	0.1%
TOTAL ASSETS	148		

* As a majority of financial assets pledged as collateral are shares of consolidated subsidiaries and other financial assets, the ratio is not significant.

The breakdown by maturity is as follows:

	As of December 31, 2018	As of December 31, 2019	Maturing in		
			Less than 1 year	1 to 5 years	More than 5 years
<i>(en millions d'euros)</i>					
Property, plant and equipment	8	18	6	10	2
Mortgage pledge	1	5	4	1	0
Other PP&E pledge ⁽¹⁾	7	13	6	10	2
Financial assets ⁽²⁾	108	109	46	61	2
Current assets	21	21	21	0	0
Pledges on receivables	21	21	21	0	0
TOTAL	137	148	73	71	4

⁽¹⁾ Mainly equipment and traveling systems.

⁽²⁾ Including non-consolidated investments of €98.8 million and other financial assets (primarily operating financial assets) of €9.6 million as of December 31, 2018, compared with non-consolidated investments of €98.8.0 million and other financial assets (primarily operating financial assets) of €10.2 million as of December 31, 2019.

NOTE 9**EQUITY AND EARNINGS PER SHARE**

9.1 Share capital management procedures

Veolia Environnement manages its share capital within the framework of a prudent and rigorous financial policy that seeks to ensure easy access to French and international capital markets, to enable investments in projects that create value and provide shareholders with a satisfactory remuneration, while maintaining an “Investment Grade” credit rating.

With effect from September 30, 2014 and for a period of 12 months renewable by tacit agreement, Veolia Environnement entrusted Rothschild & Cie Banque with the implementation of a liquidity contract.

On May 28, 2019, Veolia Environnement entered into a new liquidity contract with Kepler Chevreux, effective June 1, 2019, for an initial period expiring on December 31, 2019, tacitly renewable thereafter for periods of one year. This contract complies with the prevailing legal framework.

9.2 Equity attributable to owners of the Company

9.2.1 Share capital

The share capital is fully paid-up.



9.2.1.1 SHARE CAPITAL INCREASE RESERVED FOR GROUP EMPLOYEES

In 2019, Veolia Environment performed a share capital increase of €1.2 million by capitalizing reserves, in order to grant five free shares to beneficiary employees as decided by the Board of Directors on May 2, 2018, bringing the share capital to €2,829,128,105.

Veolia then performed a second share capital increase of €25.1 million as part of the 2019 Sequoia employee shareholding plan, using the delegation of authority granted by the Combined General Meeting of April 18, 2019, bringing the share capital to €2,836,332,695. The expenses relating to this transaction were deducted from additional paid-in capital for a net of tax amount of €1.4 million.

9.2.1.2 NUMBER OF SHARES OUTSTANDING AND PAR VALUE

The number of shares outstanding was 565,593,341 as of December 31, 2018 and 567,266,539 as of December 31, 2019. The par value of each share is €5.

9.2.1.3 AUTHORIZED BUT UNISSUED SHARES

For the financial management of Veolia Environnement, resolutions authorizing share capital increases approved every two years by Veolia Environnement's General Meeting are intended to authorize the Board of Directors to increase the share capital subject to certain conditions and limits. They allow the nature of financial instruments issued to be adapted in line with financing requirements and the situation of the French and international capital markets.

These resolutions are generally divided into two categories and subject to the following share capital increase ceilings:

- Resolutions authorizing share capital increases with preferential subscription rights (PSR) subject to a maximum nominal amount capped at €845 million (*i.e.* approximately 30% of the Company's share capital on the date of the General Shareholders' Meeting that approved these resolutions), and
- Resolutions authorizing share capital increases without PSR subject to an overall and maximum nominal amount capped at €281 million (*i.e.* approximately 10% of the Company's share capital on the date of the General Shareholders' Meeting that approved these resolutions).

The use of these resolutions may not lead to share capital increase transactions with or without PSR exceeding a second overall ceiling of a nominal amount of €845 million (approximately 30% of the Company's share capital on the date of the General Shareholders' Meeting that approved these resolutions).

All these authorizations are suspended during a public tender offer filed by a third party and aimed at taking control of the Company.

Fiscal years 2018 and 2019

For 2018, authorized but unissued shares under the first category amounted to 169,000,000 shares outstanding on April 19, 2018, the date of the General Shareholders' Meeting voting the authorizations.

As of December 31, 2018, 2,228,518 shares had been issued from among the 169,000,000 above-mentioned authorized shares.

For 2019, authorized but unissued shares under the first category amounted to 169,000,000 shares outstanding on April 19, 2018, the date of the General Shareholders' Meeting voting the authorizations.

As of December 31, 2019, 1,440,918 shares had been issued under the above transaction and 232,280 shares under free share grants, representing a total of 1,673,198 shares.

9.2.2 Offset of treasury shares against equity

Treasury shares are deducted from equity.

Gains or losses arising from the sale of treasury shares and related dividends are recognized directly in equity and do not impact the Consolidated Income Statement.

9.2.2.1 PURCHASES AND SALES OF TREASURY SHARES

Purchase and sale transactions in Veolia Environnement shares under the liquidity contract in 2019 and 2018 were as follows:

	2018	2019
Number of shares purchased during the year	5,436,308	1,545,769
Number of shares sold during the year	6,630,754	1,535,769

As of December 31, 2018 and 2019, Veolia Environnement did not hold any shares under the liquidity contract. A €20 million drawdown authorization was granted for the operation of this liquidity contract.

12,510,389 and 12,450,465 treasury shares are held as of December 31, 2018 and December 31, 2019, respectively.

9.2.2.2 EQUITY RISK

As of December 31, 2019, Veolia Environnement holds 12,450,465 of its own shares, of which 8,389,059 are allocated to external growth transactions and 4,061,406 were acquired for allocation to employees under employee savings plans. These shares have a market value of €295.2 million, based on a share price of €23.71 and a net carrying amount of €442.4 million deducted from equity.

9.2.3 Appropriation of net income and dividend distribution

The Combined General Meeting of April 18, 2019 set the cash dividend for 2018 at €0.92 per share. The shares went ex-dividend on May 14, 2019 and the dividend was paid from May 16, 2019 for a total amount of €509.1 million.

A dividend of €462.6 million was distributed by Veolia Environnement in 2018 and €314.5 million deducted from 2017 net income and €148.1 million from retained earnings.



9.2.4 Foreign exchange gains and losses

Accumulated foreign exchange translation reserves total -€102.1 million as of December 31, 2018 represented (attributable to owners of the Company).

The change in foreign exchange translation reserves primarily reflects fluctuations in the Chinese renminbi (-€29.3 million), the U.S. dollar (+€31.1 million), the Czech crown (-€31.8 million) and the Hong Kong dollar (-€35.4 million).

Accumulated foreign exchange translation reserves total -€92.6 million as of December 31, 2019 (attributable to owners of the Company).

The change in foreign exchange translation reserves primarily reflects fluctuations in the Chinese renminbi (-€10.4 million), the pound sterling (+€31.7 million), the Canadian dollar (+€10.1 million), the Hong Kong dollar (-€19.3 million) and the Argentinian peso (-€34.2 million).

MOVEMENTS IN FOREIGN EXCHANGE TRANSLATION RESERVES (ATTRIBUTABLE TO OWNERS OF THE COMPANY AND TO NON-CONTROLLING INTERESTS)

(€ million)	Total	o/w Attributable to owners of the company
Translation differences on the financial statements of subsidiaries drawn up in a foreign currency	259.5	206.2
Translation differences on net foreign investments	-308.0	-308.3
As of December 31, 2018 represented	-48.5	-102.1
Translation differences on the financial statements of subsidiaries drawn up in a foreign currency	-109.0	-102.8
Translation differences on net foreign investments	112.3	112.3
Movements in 2019	3.3	9.5
Translation differences on the financial statements of subsidiaries drawn up in a foreign currency	150.5	103.4
Translation differences on net foreign investments	-195.7	-196.0
As of December 31, 2019	-45.2	-92.6

BREAKDOWN BY CURRENCY OF FOREIGN EXCHANGE TRANSLATION RESERVES ATTRIBUTABLE TO OWNERS OF THE COMPANY

(€ million)	As of December 31, 2018 represented	Change	As of December 31, 2019
Chinese renminbi	282.5	-10.4	272.1
US dollar	135.5	4.2	139.7
Czech crown	18.4	4.0	22.4
Australian dollar	6.5	5.8	12.3
Mexican peso	-22.6	5.1	-17.5
Polish zloty	-24.0	2.7	-21.3
Argentinian peso	-64.0	-34.2	-98.2
Pound sterling	-185.8	31.7	-154.1
Hong-Kong dollar	-218.9	-19.3	-238.2
Other currencies	-29.7	19.9	-9.8
TOTAL	-102.1	9.5	-92.6

9.2.5 Fair value reserves

Fair value reserves attributable to owners of the Company total -€62.5 million as of December 31, 2018 and -€57.1 million as of December 31, 2019, and break down as follows:

(€ million)	Available for- sale securities	Commodity derivatives hedging cash flows	Foreign currency derivatives hedging cash flows	Interests rate derivatives hedging cash flows	Total	o/w attributable to owners of the Company
As of December 31, 2018	7.9	-1.0	-3.2	-64.5	-60.8	-62.5
Fair value adjustments	5.2	-2.7	-1.2	2.4	3.7	5.4
Other movements	-1.5	1.9	-	-0.4	-	-
As of December 31, 2019	11.6	-1.8	-4.4	-62.5	-57.1	-57.1

Amounts are presented net of tax

No material amounts were released to the Consolidated Income Statement in respect of interest rate derivatives hedging cash flows and recorded in finance costs and income.

9.3 Equity attributable to non-controlling interests

Pursuant to IFRS 10, non-controlling interests in fully consolidated subsidiaries are considered a component of equity.

Furthermore, in accordance with IAS 32, Financial Instruments: Presentation, non-controlling interest put options are recognized as liabilities.

9.3.1 Equity attributable to non-controlling interests

A breakdown of the movement in non-controlling interests is presented in the Statement of Changes in Equity.

As of December 31, 2019, non-controlling interests mainly concern:

- in Europe excluding France: Poland (€186.6 million) and Germany (€194.8 million);
- in the Rest of the World: China (€393.6 million).

The change in non-controlling interests is mainly due to net income for the year (€135.7 million), dividend distributions (-€151.9 million) and movements in scope of consolidation (+€27.0 million).

9.3.2 Net income (loss) attributable to non-controlling interests

Net income attributable to non-controlling interests is €135.7 million for the year ended December 31, 2019, compared with €167.3 million for the year ended December 31, 2018 re-presented.

Net income attributable to non-controlling interests breaks down by operating segment as follows:

(€ million)	As of December 31, 2018 re-presented	As of December 31, 2019
France	0.8	0.7
Europe excluding France (b)	-72.4	-53.6
Rest of the World (a)	-86.5	-70.9
Global businesses	-9.2	-11.9
Other	-	-
NON-CONTROLLING INTERESTS	-167.3	-135.7

(a) Including net income attributable to non-controlling interests in China (-€38.0 million) as of December 31, 2019.

(b) Including net income attributable to non-controlling interests in Central Europe (-€43.9 million) as of December 31, 2019.

9.4 Deeply-subordinated securities and OCEANE convertible bonds

9.4.1 OCEANE convertible bonds

On March 8, 2016, Veolia Environnement issued convertible "OCEANE" bonds.

The conversion option of this transaction may be settled solely in shares and is recognized in equity. The bonds convertible and/or exchangeable for new and/or existing shares ("OCEANEs") issued in March 2016 were redeemed on September 14, 2019. -€5.5 million was recognized in equity as of December 31, 2019.

Veolia Environnement issued on September 12, 2019, as part of a private placement without preferential subscription rights bonds convertible and/or exchangeable for new and/or existing shares ("OCEANEs") maturing on January 1, 2025, for a nominal value of €700 million (see also note 8.1.1.1).

9.5 Earnings per share

Basic earnings per share is calculated by dividing adjusted net income attributable to owners of the Company by the weighted average number of ordinary shares outstanding during the fiscal year.

Pursuant to IAS 33, the weighted average number of shares outstanding taken into account for the calculation of net income per share is adjusted for the distribution of scrip dividends during the year. Pursuant to IAS 33.9 and IAS 12, net income attributable to owners of the Company has been adjusted to take into account the cost of the coupon payable to holders of deeply subordinated securities issued by Veolia Environnement.

Diluted earnings per share is calculated by dividing adjusted net income attributable to owners of the Company by the weighted average number of ordinary shares outstanding during the fiscal year plus the weighted average number of ordinary shares that would be issued following the conversion into ordinary shares of all potentially dilutive ordinary shares.

Net income and the number of shares used to calculate basic and diluted earnings per share are presented below for all activities.

	As of December 31, 2018 represented (1)	As of December 31, 2019
Weighted average number of ordinary shares (in millions of shares)	551.1	553.4
Weighted average number of ordinary shares for the calculation of basic earnings per share	551.1	553.4
Theoretical number of additional shares resulting from the exercise of share purchase and subscription options	24.8	25.1
Weighted average number of ordinary shares for the calculation of diluted earnings per share (in millions of shares)	575.9	578.5
Net income (loss) attributable to owners of the Company per share (in millions of euros)		
Net income (loss) attributable to owners of the Company (*)	374.2	619.4
Net income (loss) attributable to owners of the Company per share:		
Basic	0.68	1.12
Diluted	0.65	1.07
Net income (loss) from discontinued operations attributable to owners of the Company per share (in millions of euros)		
Net income (loss) from discontinued operations attributable to owners of the Company	-46.4	-111.8
Net income (loss) from discontinued operations attributable to owners of the Company per share:		
Basic	-0.08	-0.20
Diluted	-0.08	-0.19
NET INCOME (LOSS) FROM CONTINUING OPERATIONS ATTRIBUTABLE TO OWNERS OF THE COMPANY PER SHARE (in millions of euros)		
Net income (loss) from continuing operations attributable to owners of the Company	420.6	731.3
Net income (loss) from continuing operations attributable to owners of the Company per share:		
Basic	0.76	1.32
Diluted	0.73	1.26

(1) 2018 adjustments concern the application of IFRS 16 (see note 1.2.2 - new norms and interpretations) and the reintegration of Lithuania accounts previously presented in discontinued operations.

(*) Pursuant to IAS 33.9 and IAS 12, adjusted net income attributable to owners of the Company includes the coupon cost attributable to holders of deeply subordinated securities issued by Veolia Environnement (-€5.5 million in 2019 and -€66.4 million in 2018 represented)

The only potentially dilutive instruments recognized by Veolia Environnement are the share subscription and purchase options presented in Note 6.2.2 and OCEANE convertible bonds.

NOTE TO PROVISIONS

Pursuant to IAS 37, "Provisions, Contingent Liabilities and Contingent Assets", a provision is recorded when, at the year end, the Group has a current legal or implicit obligation to a third party as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and the amount of the obligation can be reliably estimated.

Provisions cover all losses that are considered probable, and that relate to litigation (taxation other than income tax, employee or other) arising in the normal course of Veolia's business operations, including adjustments on uncertain tax positions identified but not yet adjusted.

As part of its obligations under public services contracts, Veolia generally has contractual obligations for the maintenance and repair of the installations it manages. The resulting maintenance and repair costs are analyzed in accordance with IAS 37 on provisions and, where necessary, a provision for contractual commitments is recorded where there are delays in work to be performed.

In the event of a restructuring, an obligation exists if, prior to the period end, the restructuring has been announced and a detailed plan produced or implementation has commenced. Future operating costs are not provided.

Provisions for closure and post-closure costs encompass the legal or contractual obligations of the Group on the completion of operating activities at a site (primarily site rehabilitation provisions) and, more generally, expenditure associated with environmental protection (provision for environmental risks).

In the case of provisions for rehabilitation of landfill facilities, Veolia accounts for the obligation to restore a site as waste is deposited, recording a non-current asset component. This asset is amortized during the fiscal year based on its depletion. The costs included take account of the technical and operating characteristics of the sites, as well as applicable regulatory requirements. The monitoring period following the closure of a landfill site depends on the country where the Group operates (France: 30 years; UK: 60 years). Inflation is taken into account in the total cost calculation and, depending on the projected expenditure schedule, a discount rate is applied (based on the country and flow maturities). Provisions are calculated, by site, at the reporting date, taking account of the landfill site fill rate, total estimated costs per year, the scheduled closure date and the discount rate and are recorded progressively over the operating period.

Provisions giving rise to an outflow after more than one year are discounted if the impact is material. Discount rates reflect current assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recorded in the Consolidated Income Statement in "Other financial income and expenses".

Movements in non-current and current provisions during 2019 are as follows:

(€ million)	As of December 31, 2018 represented	Addition / Charge	Repayment / Utilization	Reversal	Actuarial gains (losses)	Unwinding of the discount	Change in consolidation scope	Foreign exchange translation	Non- current / current reclassification	Other movements	As of December 31, 2019
Tax litigation (*)	50.1	15.8	-8.2	-8.1	-	-	1.5	-	-	-2.8	48.3
Employee litigation	19.9	6.0	-3.8	-4.5	-	-	-	-0.1	-	1.0	18.5
Other litigation	162.1	28.5	-17.1	-10.2	-	0.2	0.7	0.4	-	-12.3	152.3
Contractual commitments	76.5	202.2	-203.9	-0.9	-	0.3	-	-	-	-0.1	74.1
Provisions for work-in-progress and losses to completion on long-term contracts	161.3	42.5	-65.9	-5.7	-	4.1	-	1.1	-	1.5	138.9
Closure and post-closure costs	672.5	13.2	-35.5	-31.4	-	61.9	-9.5	10.5	-	-3.0	678.7
Restructuring provisions	40.5	47.7	-17.6	-13.4	-	-	-	0.2	-	-0.1	57.3
Self-insurance provisions	194.5	125.4	-49.7	-20.1	-	1.0	-	0.3	-	-	251.4
Other provisions	190.0	66.4	-50.0	-43.0	-	-	6.4	0.6	-	11.9	182.3
Provisions excluding pensions and other employee benefits	1,567.4	547.7	-451.7	137.3	-	67.5	-0.9	13.0	-	-3.9	1,601.8
Provisions for pensions and employee benefits	728.3	62.2	-65.3	-7.1	51.6	12.2	-6.8	4.7	-	6.2	786.0
TOTAL PROVISIONS	2,295.7	609.8	-517.0	144.4	51.6	79.7	-7.7	17.7	-	2.3	2,387.8
NON-CURRENT PROVISIONS	1,782.5	339.4	-269.1	-65.7	51.6	79.2	-10.5	14.3	-93.2	20.1	1,848.7
CURRENT PROVISIONS	513.2	270.4	-247.9	-78.7	-	0.5	2.8	3.4	93.2	-17.8	539.1

(*) Provision other than for income tax

Provisions for litigation total €219.1 million overall as of December 31, 2019, compared with €232.1 million overall as of December 31, 2018 represented.

The France, Europe excluding France, Rest of the World and Global Businesses operating segments account for €50 million, €78.6 million, €36.3 million and €47.5 million of these provisions, respectively, as of December 31, 2019.

Additional information on the main litigation is presented in Note 12.

As of December 31, 2019, **provisions for contractual commitments** primarily concern the France operating segment in the amount of €44.5 million.

Provisions for work-in-progress and losses to completion on long-term contracts total €138.9 million as of December 31, 2019 and mainly concern the France operating segment in the amount of €29.5 million, the Europe excluding France operating segment in the amount of €28.8 million, the Rest of the World operating segment in the amount of €42.4 million and the Global Businesses operating segment in the amount of €38.3 million.

Provisions for closure and post-closure costs total €678.7 million as of December 31, 2019 compared with €672.5 million as of December 31, 2018 represented and mainly concern the following operating segments:

- France in the amount of €245.9 million in 2019, compared with €244.6 million in 2018 represented;
- Europe excluding France, in the amount of €231.8 million in 2019, compared with €215.8 million in 2018 represented.

The change in these provisions in 2019 is mainly due to the unwinding of the discount in the amount of €61.9 million, net reversals of provisions in the amount of -€53.7 million and foreign exchange translation gains and losses in the amount of €10.5 million.

By nature of obligation, these provisions concern:

- provisions for site rehabilitation in the amount of €632.8 million at the end of 2019 compared with €602.4 million at the end of 2018 represented;
- provisions for environmental risks in the amount of €19.8 million at the end of 2019 compared with €43.9 million at the end of 2018 represented;
- provisions for plant dismantling in the amount of €26.1 million at the end of 2019, compared with €26.2 million at the end of 2018 represented.

Self-insurance provisions were mainly recorded by Group insurance and reinsurance subsidiaries.

Other provisions include various obligations recorded as part of the normal operation of the Group's subsidiaries and which are of immaterial individual amount. They primarily concern the following operating segments:

- France in the amount of €36.0 million as of December 31, 2019 with €22.7 million as of December 31, 2018 represented;
- Europe excluding France, in the amount of €48.7 million as of December 31, 2019, compared with €53.1 million as of December 31, 2018 represented;
- the Rest of the world in the amount of €42.9 million as of December 31, 2019 with €39.8 million as of December 31, 2018 represented;
- Global businesses in the amount of €30.1 million as of December 31, 2019 with €50.6 million as of December 31, 2018 represented.

Provisions for pensions and other employee benefits as of December 31, 2019 total €786.0 million, and include provisions for pensions and other post-employment benefits of €693.0 million (governed by IAS 19 and detailed in Note 6.3), and provisions for other long-term benefits of €93.0 million.



NOTE 11 INCOME TAX EXPENSE

11.1 Income taxes

The income tax expense (income) includes the current tax expense (income) and the deferred tax expense (income).

11.1.1 Analysis of the income tax expense

The income tax expense breaks down as follows:

(€ million)	2018 represented	2019
Current income tax (expense) income	-224.5	-331.4
France	-15.4	-33.7
Other countries	-209.1	-297.7
Deferred tax (expense) income	25.5	32.9
France	19.2	-14.6
Other countries	6.3	47.5
TOTAL INCOME TAX EXPENSE	-199.0	-298.5

A number of French subsidiaries elected to form a consolidated tax group with Veolia Environnement as the head company. Veolia Environnement is liable to the French treasury department for the full income tax charge, calculated based on the group tax return. Any tax savings are recognized at Veolia Environnement level.

11.1.2 Effective tax rate

	2018 represented	2019
Net income (loss) from continuing operations (a)	654.3	872.5
Share of net income (loss) of associates (b)	44.2	40.5
Share of net income (loss) of joint ventures (c)	71.4	89.3
Share of net income (loss) of other equity-accounted entities (d)	-	-
Income tax expense (e)	-199.0	-298.5
Net income from continuing operations before tax (f) = (a)-(b)-(c)-(d)-(e)	737.7	1,041.2
Effective tax rate -(e)/(f)	27.0%	28.7%
Theoretical tax rate (1)	34.4%	34.4%
Net impairment losses on goodwill not deductible for tax purposes	0.0%	0.0%
Differences in tax rate	-12.7%	-11.1%
Capital gains and losses on disposals	1.1%	1.4%
Dividends	0.9%	0.9%
Taxation without basis	4.5%	4.6%
Effect of tax projections (2)	-0.3%	-1.4%
Other permanent differences	-0.9%	-0.1%
EFFECTIVE TAX RATE	27.0%	28.7%

(1) The tax rate indicated is the statutory tax rate in France applicable in fiscal years 2018 and 2019.

(2) Effect of tax projections include primarily impairment losses on deferred tax assets and capitalized deferred taxes.

The main elements explaining the effective tax rate in **2019** are as follows:

- transactions in countries with a lower tax rate than the French standard rate;
- taxes without tax bases.

It is recalled that the main elements explaining the effective tax rate in **2018** were as follows:

- transactions in countries with a lower tax rate than the French standard rate;
- taxes without tax bases, notably withholding taxes.

11.2 Deferred tax assets and liabilities

Deferred tax assets and liabilities are generally recognized on timing differences and/or tax loss carry forwards.

Deferred tax assets arising from timing differences are only recognized when it is probable that:

- there are sufficient taxable timing differences within the same tax group or tax entity that are expected to reverse in the same periods as the expected reversal of such deductible timing differences or in the periods when the deferred tax assets arising from tax losses can be carried back or forward; or
- the Group is likely to generate sufficient future taxable profits against which the asset can be offset.

At each reporting date, the Group reviews the recoverable amount of deferred tax assets arising from material tax losses carried-forward.

Deferred tax assets arising from these tax losses are no longer recognized or are reduced when required by the specific facts and circumstances of each company or tax group concerned, and particularly when:

- the forecast period and uncertainties regarding the economic environment no longer enable the probability of utilization to be assessed;
- the companies have not started utilizing the losses;
- the forecast utilization period exceeds the carry forward period authorized by tax legislation;
- offset against future taxable profits is uncertain due to the risk of different interpretations of the application of tax legislation.

Deferred tax assets and liabilities are adjusted for the effects of changes in prevailing tax laws and rates at the year end. Deferred tax balances are not discounted.

Movements in deferred tax assets and liabilities during **2019** are as follows:

(€ million)	December 31, 2018 represented	Changes in business through net income	Changes in business through equity	Changes in consolidation scope	Foreign exchange translation	Transfers to Assets / Liabilities classified as held for sale	Other	December 31, 2019
Deferred tax, gross	2,170.8	409.1	10.9	13.4	-13.3	6.7	2.1	2,599.7
Deferred tax assets not recognized	-1,127.4	-535.9	-10.5	2.8	25.4	-1.2	-	-1,646.8
DEFERRED TAX ASSETS, NET	1,043.4	-126.8	0.4	16.2	12.1	5.5	2.1	952.9
DEFERRED TAX LIABILITIES	1,042.6	-170.0	-0.5	87.5	13.6	4.1	7.1	984.4

As of December 31, 2019, deferred tax assets not recognized total -€1,646.8 million, including -€1,328.5 million on tax losses and -€318.3 million on timing differences. As of December 31, 2018 re-presented, such deferred tax assets totaled -€1,127.4 million, including -€911.6 million on tax losses and -€215.8 million on timing differences.

Deferred tax assets and liabilities **break down by nature** as follows:

(€ million)	As of December 31, 2018 represented	As of December 31, 2019
Deferred tax assets		
Tax losses	1,179.6	1,587.4
Provisions and impairment losses	143.3	148.1
Employee benefits	200.4	218.0
Financial instruments	86.4	60.3
Operating financial assets	40.1	34.4
Fair value of assets purchased	10.0	23.8
Foreign exchange gains and losses	4.1	0.1
Finance leases	38.1	38.3
Intangible assets, PP&E and operating financial assets	96.9	94.8
Other	371.9	394.5
DEFERRED TAX ASSETS, GROSS	2,170.8	2,599.7
DEFERRED TAX ASSETS NOT RECOGNIZED	-1,127.4	-1,646.8
RECOGNIZED DEFERRED TAX ASSETS	1,043.4	952.9

(€ million)	As of December 31, 2018 represented	As of December 31, 2019
Deferred tax liabilities		
Intangible assets and Property plant and equipment	482.8	438.1
Fair value of assets purchased	162.7	213.6
Operating financial assets	71.3	70.8
Financial instruments	81.6	26.0
Finance leases	50.7	53.9
Provisions	33.7	32.0
Foreign exchange gains and losses	12.4	7.7
Employee benefits	36.1	38.3
Other	111.3	104.0
DEFERRED TAX LIABILITIES	1,042.6	984.4

The breakdown **by main tax group** as of December 31, 2019 is as follows:

(€ million)	Recognized deferred tax assets on tax losses	Recognized deferred tax assets on timing differences	Deferred tax liabilities on timing differences	Net recognized deferred tax position
France Veolia tax group	1.2	77.5	-77.5	1.2
United States tax group	119.1	103.3	-134.3	88.1
TOTAL FOR THE MAIN TAX GROUPS	120.3	180.8	-211.8	89.3

The **timing schedule for the reversal** of the net deferred tax position on timing differences and the deferred tax asset position on tax losses of the France tax group and the United States tax group is as follows:

(€ million)	Deferred tax assets on tax losses			Net deferred tax on timing differences			Total		
	5 years or less	More than 5 years	Total	5 years or less	More than 5 years	Total	5 years or less	More than 5 years	Total
France Veolia tax group	1.2	-	1.2	-	-	-	1.2	-	1.2
United States tax group	119.1	-	119.1	-2.0	-29.2	-31.2	117.1	-29.2	87.9

The **expiry schedule** for deferred tax assets on tax losses recognized and not recognized as of December 31, 2019 is as follows:

(€ million)	Échéance			Total as of December 31, 2019	Total as of December 31, 2018 represented
	5 years or less	More than 5 years	Unlimited		
Recognized tax losses	18.8	142.5	97.4	258.7	271.9
Tax losses not recognized	83.5	525.1	720.1	1,328.7	908.1

Regardless the positive outcome of the US tax audit, the Group, considering prospects of the US tax group, recognized part of its deferred tax assets.

The increase in tax losses not recognized mainly concerns the favorable settlement of the US tax audit. After activation in 2019, the group has tax losses of \$2 billion (base position) in the US to be used before the end of 2026 (see note 11.3).

Deferred tax assets and liabilities **break down by destination** as follows:

(€ million)	As of December 31, 2018 represented	As of December 31, 2019
DEFERRED TAX ASSETS, NET		
Deferred tax assets through net income	977.4	885.3
Deferred tax assets through equity	66.0	67.6
DEFERRED TAX ASSETS, NET	1,043.4	952.9
DEFERRED TAX LIABILITIES		
Deferred tax assets through equity	1,014.8	956.0
Deferred tax assets through equity	27.8	28.4
DEFERRED TAX LIABILITIES	1,042.6	984.4

11.3 Tax audits

In the normal course of their business, the Group entities in France and abroad are subject to regular tax audits.

The Group assesses income tax risks in accordance with IFRIC 23, notably by considering that the tax authorities will conduct an audit and will have full knowledge of all relevant information.

The tax authorities have carried out various tax audits in respect of both consolidated tax groups and individual entities. To date, none of these reviews have led to liabilities to the tax authorities materially in excess of amounts estimated during the review of tax risks.

In estimating the risk as of December 31, 2019, the Group took account of the expenses that could arise as a consequence of these audits, based on a technical analysis of the positions defended by the Group before the tax authorities. The Group periodically reviews the risk estimate in view of developments in the audits and legal proceedings.

The significant development in 2019 is the favorable settlement of the US dispute.

It is recalled that during the reorganization in 2006 of the former US Filter (acquired in 1999), Veolia, through its subsidiary VENAIO, sought a tax deduction pursuant to the "Worthless Stock Deduction" (WSD) provisions under U.S. tax law. Related tax losses totaled US\$4.5 billion (tax base) as of December 31, 2006. Following a long tax audit, the U.S. Internal Revenue Service (IRS) issued a Revenue Agent's Report on November 6, 2018, rejecting the worthless stock deduction and seeking penalties. Veolia filed a detailed protest on December 21, 2018, in which it refuted the merits of the IRS's arguments.

Early April 2019, the IRS informed Veolia that it would not pursue a challenge of the Worthless Stock Deduction, and provided a revised revenue agent's report reflecting that decision.

NOTE 12 CONTINGENT ASSETS AND LIABILITIES

In accordance with IAS 37 criteria, management does not consider it appropriate to record a provision or, as the case may be, an additional provision, or to recognize deferred income with respect to the following legal, administrative or arbitration proceedings as of December 31, 2019, due to the uncertain nature of their outcome.

The main contingent assets and liabilities relating to legal, administrative or arbitration proceedings are presented below:

North America

United States – Water – Flint

In November, 2011, the Governor of Michigan declared the City of Flint, ("Flint") to be in financial difficulty and appointed an emergency manager ("Emergency Manager") for Flint. In an attempt to save money, the Emergency Manager decided to switch the city's water supply source (previously provided by Detroit) to the Flint River on an interim basis as part of a long- term plan to switch to water from Lake Huron.



In 2013, Flint hired the engineering firm Lockwood, Andrews & Newman (“LAN”) to prepare the city water plant to switch water sources. In April 2014, the city water plant began treating Flint River water for distribution to its residents.

Following the switch to Flint River water, Flint residents began to complain about its odor, taste and appearance. Between August 2014 and December 2014, Flint experienced a number of water quality issues resulting in violations of National Primary Drinking Water Regulations including “Total Trihalomethanes – TTHM” (which are disinfection byproducts) maximum contaminant level violations.

In February 2015, to address these water quality issues, Flint hired a US subsidiary of the Company, Veolia Water North America Operating Services, LLC (“VWNAOS”) to produce a report, which included a discussion of residual effects of the chlorination process (TTHM), discoloration and taste and odor issues. This one-time review (invoiced at \$40,000USD), was completed by VWNAOS in approximately four weeks. Throughout that time, and subsequently, Flint continued to retain LAN as its primary water engineering consultant. LAN developed a treatment plan for the Flint River water and issued reports to the City of Flint in December 2014 and August 2015 that addressed compliance with the Safe Drinking Water Act. LAN did not raise or address any concerns that the Flint’s new water supply could create problems with lead levels in the drinking water.

On February 18, 2015, VWNAOS issued an interim report, based on testing results provided by Flint which included a statement that the drinking water was “safe” in that it complied “with state and federal standards and required testing”. During that evening’s public meeting, which was organized by the Flint City Council Public Works Committee in relation to VWNAOS’s interim report, VWNAOS employees communicated to the public the results of said report. The City, not VWNAOS, conducted all of the lead testing.

On March 12, 2015, VWNAOS delivered its final report to Flint, which was then subsequently made available to the public. In its report, VWNAOS issued a broad set of recommendations to address TTHM compliance and improve water quality related to odor and discoloration. The report also specifically recommended that the City work with the state and City’s engineering firm to add a corrosion control plan. It would appear that many of these recommendations were ignored by the City.

On June 24, 2015, the US Environmental Protection Agency issued a memorandum summarizing the available information regarding activities conducted by the City of Flint and several governmental agencies in response to high lead levels in City drinking water reported by a Flint resident.

On September 25, 2015, Flint issued a lead advisory to the residents of Flint regarding the presence of lead in the drinking water.

On October 16, 2015, Flint switched their potable water supply source back to the Detroit water system.

On October 21, 2015, the office of the Governor of the State of Michigan commissioned the Flint Water Advisory Task Force, a consulting group made up of experts in a variety of disciplines, to conduct an independent review of the Flint water crisis, including lead contamination of the water.

On March 21, 2016, the Flint Water Advisory Task Force issued its final report, drafted after interviewing numerous individuals and reviewing many documents. The Task Force report concluded that the responsibility for the Flint water crisis rested largely with several governmental agencies and the City of Flint. The report concluded that the Michigan Department of Environmental Quality and the City of Flint did not require and implement corrosion control at the time the source of the water supply was changed which it found was contrary to requirements imposed by federal law, referred to as the Lead & Copper Rule.

Individual and class actions

Since February 2016, numerous individual complaints and putative class actions have been filed before the Michigan state court and Federal court by Flint residents against a number of defendants, including the State of Michigan, the

Michigan Department of Environmental Quality and three of the US subsidiaries of the Company, Veolia North America Inc. VWNAOS and Veolia North America LLC. Flint residents allege injury and damages by exposure to toxins, including lead, contained within Flint River water and have brought several types of claims, including professional negligence and fraud. The court has dismissed the fraud claims.

The Company has been named in a dozen putative class actions and hundreds of individual actions. To date, however, the Company is not a party to any of these actions; only the three US subsidiaries of the Company are active parties in those actions. The mediation is still ongoing.

In January 2018, a mediation process was ordered by the court presiding over the lawsuits in Federal court and that mediation is ongoing. The mediators required the attendance of all parties to the Federal litigation, which includes the three US subsidiaries of the Company but not the Company itself.

Civil action of the State of Michigan's Attorney General

On June 22, 2016, the State of Michigan's Attorney General filed a civil action against several corporations, including VWNAOS and the Company itself, for their alleged roles in the Flint water crisis. The Attorney General subsequently dismissed that action, and it filed a new civil action on August 16, 2016. Among other allegations, the Attorney General refers to the interim report delivered by VWNAOS. The Attorney General alleges that the acts and omissions of these companies constitute, among other things, professional negligence and fraud. Subsequent to filing the new action, the Attorney General agreed to dismiss the Company without prejudice from the case. On September 12, 2016, stipulations of dismissal were filed with the state court to that effect.

On November 7, 2018, the State of Michigan elected a new Governor and a new Attorney General. The Attorney General then filed, on April 12, 2019, a new amended complaint against, among others, the Company and some of its US subsidiaries. The Company has not been served with that complaint and so it is not currently an active party in this civil action (but its three US subsidiaries are parties).

On November 8, 2019, the court ruled on the motion, dismissing all claims against the Company's US subsidiaries, except for an unjust enrichment claim.

On December 2, 2019, the State, the Company's US subsidiaries, and the LAN defendants, filed motions to reconsider this decision, and those motions are still pending.

Criminal actions

Criminal proceedings were initiated by the Attorney General against fifteen employees of the State of Michigan and the City of Flint for their conduct related to the water crisis in Flint. Of these fifteen employees, seven pleaded guilty. On June 13, 2019, the new Attorney General dropped all charges against the remaining eight employees. The Attorney General has stated that her investigation is ongoing and that further criminal proceedings could be initiated.

The Group strongly contests the merits of all these legal proceedings.

These lawsuits have been reported to the insurers; some of them, availing themselves of one of the exclusion clauses stipulated in their policies, have already indicated that they would deny all coverage for lead damage.

The Group strongly contests this position on the grounds that the exclusion clause for lead damage appears inapplicable in this case and, in any event, void because it is contrary to a mandatory rule of article L.113-1 of the French Insurance Code requiring that the exclusion shall be formal and limited and to the assessment made based on case law.

Central and Eastern Europe



Romania

In 2000, Apa Nova Bucuresti ("ANB"), Veolia Eau's Romanian subsidiary in which it holds a 74% stake, signed a 25-year concession agreement for water distribution and wastewater services with the city of Bucharest.

At the end of July 2015, the National Anticorruption Division of Ploiesti ("NAD") opened an investigation on influence peddling involving several persons and entities, including several Romanian subsidiaries of the Company.

ANB and certain of its former managers were suspected of having purchased, between 2008 and 2015, the influence of three natural persons in order to obtain favorable decisions from Bucharest's public authorities, resulting in significant increases in water prices. In exchange for their influence, ANB allegedly made significant payments to companies controlled by these three persons or related persons, without these payments being proportionate to the services rendered, and without these services necessarily being real.

Since August 2015, ANB, as well as other subsidiaries of the Company with water and energy activities in Romania, have provided the NAD, at its request, with numerous documents.

Throughout October 2015, three former managers of ANB were questioned by the NAD, and then placed under the status of "*inculpat*" and under judicial supervision.

On October 30, 2015, ANB was placed under this same status, for bribery, buying influence, invasion of privacy, tax evasion and money laundering.

The Securities and Exchange Commission (SEC) and the Department of Justice (DOJ) opened investigations concerning possible violations of US federal laws, relating to the facts which are the subject of NAD's investigation. As part of its investigation, the SEC has asked the Company to voluntarily provide documents and information regarding these facts. At the SEC's behest, as part of international cooperation, the Autorité des marchés financiers (AMF) has made requests of the Company as well, which are also related to the facts which are the subject of NAD's investigation, in connection with its own investigation on the matter.

The Company fully cooperated with the investigating authorities and, in particular, provided all requested information, in accordance with applicable laws.

In 2017, the Parquet National Financier confirmed that a preliminary investigation has been launched.

At the beginning of 2018, a search took place in the Company's premises in Aubervilliers and some hearing of witnesses were conducted.

At the end of August 2018, one of the Company's subsidiaries was searched in Prague.

By letter July 8, 2019, the SEC informed the Company's US lawyer that it has concluded its investigation and that it does not intend to recommend any enforcement action against the Company.

By order November 1st, 2019, the DNA decided (i) to dismiss the charges of bribery, buying influence and invasion of privacy against ANB and all the named individuals and (ii) to continue the investigations for tax evasion and money laundering against ANB and two of its former executives.

One of the named individuals has filed an appeal from this order, which is still pending.

Lithuania - Energy

Between 2000 and 2003, the Lithuanian subsidiaries of the Group, UAB Vilniaus Energija ("UVE") and UAB Litesko ("Litesko"), signed a number of contracts with Lithuanian cities, of which the most significant was with the city of Vilnius ("Vilnius") in 2002 to rent, operate and modernize the heating and electricity production and distribution infrastructure. The Group made significant investments over the years for which it expects the cost incurred to be taken into account and a return on its investment.

Since 2009, the government publicly, and on numerous occasions, accused the Group of being responsible for high heating prices by waging a sustained campaign against it. Several steps were thus taken by the public authorities against the Lithuanian subsidiaries of the Group, among others:

- a €19M fine imposed on UVE by the Competition Council;
- the transfer of ownership without compensation of the individual heat exchange sub-stations invested by UVE;
- the unilateral reduction of the heating prices to capture the savings realized with the help of a smoke condenser invested by UVE;
- the retroactive annulment of the heating prices applied by UVE for the period 2011-2015;
- the annulment of the amendments extending the duration of the contract concluded between Litesko and the city of Alytus and the transfer to Alytus of the assets invested by Litesko.

All the harmful decisions taken against the Lithuanian subsidiaries of the Group are subject to pending challenges or appeals before the local courts.

In this context, the Company and its subsidiaries also had to initiate the arbitral proceedings described below.

(i) ICSID arbitration

In January 2016, the Company, Veolia Energie International (successor in law to Veolia Baltics and Eastern Europe), UVE and Litesko (collectively “the Companies”) filed a request for arbitration against Lithuania before the International Center for Settlement of Investment Disputes (“ICSID”).

To date, the Companies’ claim amounts to circa €80M (not including interest). For its part, Lithuania withdrew its €150M counterclaim in its last submission. This procedure is still pending.

In June 2018, Lithuania filed an objection to the arbitral tribunal’s jurisdiction, based on a decision rendered by the European Court of Justice on March 6, 2018 in the *Achmea* case, in which the Court ruled that investor-state arbitration provisions in intra-EU bilateral investment treaties are incompatible with European Union law. In a declaration dated January 15, 2019, the EU Member States indicated their intention to terminate the intra-EU bilateral investment treaties by December 2019. These developments may have an impact on the ICSID arbitration and, as the case may be, on the enforcement of the future award.

(ii) SCC arbitration

In November 2016, in the context of the Vilnius agreement which expiration date was nearly reached (March 2017), the Company and UVE filed a request for arbitration before the Stockholm Chamber of Commerce (“SCC”) to secure the appointment of an independent expert to evaluate the condition of the assets. That SCC arbitration has since expanded in scope to address claims by the Company, UVE, Vilnius and municipal company VST (“VST”) in connection with the Vilnius lease.

In this arbitration, the Company and UVE filed a claim for an indemnity of circa €22M. For their part, Vilnius and VST submitted counterclaims quantified to date at circa €690M. This procedure is still ongoing. The Company and UVE vigorously contest Vilnius and VST’s counterclaims and seek their dismissal.

Veolia technologies and contracting

VWT v. K+S Potash

On December 1, 2012, Veolia Water Technologies, Inc. (“VWT”) signed a \$324.5MUSD contract with K + S Potash Canada GP (“KSPC”) for the design, supply and commissioning of a evaporation and crystallization system, which includes 14 large evaporators and crystallizers (the “Tanks”), for a potash mine then under construction by KSPC in



the province of Saskatchewan, Canada. In this framework, a letter of guarantee at first request was issued by VWT to the benefit of KSPC in the amount of \$14.6MUSD.

On July 17, 2016, during the process of commissioning the Tanks, one tank collapsed (the "Incident"). A new replacement tank had to be manufactured and installed. The Incident also damaged other Tanks and plant equipment, which had to be removed and replaced. VWT cooperated with KSPC to determine the cause of the incident. The first investigation, conducted by KSPC, identified a defect in the design of the metal structure supporting the Tanks, for which VWT and one of its subcontractors were responsible. A second investigation conducted by VWT, however, found a defect in the production of the concrete bases to which the metal structure supporting the Tanks was affixed. These concrete bases were in turn built by a subcontractor of KSPC. VWT has repaired the damaged Tanks. These repairs resulted in significant contractual changes ("Change Orders") and additional costs. Mid-June, 2017, a second letter of guarantee at first request was issued by VWT to KSPC in the amount of \$15MUSD.

Several procedures are currently in progress.

ADRIC Arbitration Procedure (ADR Institute of Canada)

On August 18, 2017, VWT filed a complaint with the ADRIC seeking KSPC's reimbursement of the costs incurred by the contractual modifications made to carry out repairs linked to the Incident, i.e. \$19MUSD. Mid-January 2019, the arbitral tribunal accepted jurisdiction over only some claims (approximately \$13.6MUSD). This procedure is stayed due to proceedings initiated by KSCP before the Court of Queen's Bench for Saskatchewan (see below).

Legal Proceedings (the Court of Queen's Bench for Saskatchewan and Paris Commercial Court)

On April 11, 2018, KSPC brought claims against VWT before the Court of Queen's Bench for Saskatchewan in the amount of \$180MCAD (approximately €119M) for consequential damages and additional costs of repair in relation to the Incident. On January 18 2019, VWT made a settlement offer to KSPC who refused the offer.

On May 14, 2018, KSPC sought to draw down the first letter of guarantee. On May 18, 2018 the Paris Commercial Court issued a provisional injunction, precluding the bank from paying. The parties have recently withdrawn their claims before the Paris Commercial Court due to proceedings pending before the Court of Queen's Bench for Saskatchewan related to the two letters of guarantee.

On May 23, 2018, VWT filed a request for injunction before the Court of Queen's Bench for Saskatchewan seeking to prevent KSPC from drawing upon either letter of guarantee. The Court of Queen's Bench for Saskatchewan, the Court of Appeal, and then in October 2019 the Supreme Court of Canada dismissed VWT's application. In November 2019, KSPC drew down the second letter of guarantee and requested the Paris Commercial Court to restore the first letter of guarantee case to the trial list. This case is still pending before the Court.

By an Act of May 28, 2018, one of KSPC's subcontractors, AECON, sued KSPC before the Court of Queen's Bench for various claims for damages. On June 28, 2018, KSPC joined VWT as a third party to the proceedings in an attempt to require VWT to indemnify KSPC for a minimum of \$466MCAD (approximately €318M) as well as for reimbursement of sums already paid by KSPC to other subcontractors.

These law suits have been reported to insurance companies, which have already covered part of the expenses incurred.

The Group strongly contests the merits of all these legal proceedings.

NOTE 13 RELATED-PARTY TRANSACTIONS

The Group identifies related parties in accordance with the provisions of paragraph 9 of IAS 24 revised, Related Party Disclosures.

A breakdown of compensation and related benefits of key management (related parties) is presented in Note 6.2.

A breakdown of relations with joint ventures is presented in Note 5.2.4.1.

Relations with other related parties break down as follows:

Relations with ICADE SA, a subsidiary of Caisse des depots et Consignations (4.60% shareholding as of December 31, 2019)

On January 31, 2013, ICADE SA and Veolia Environnement entered into a firm lease for premises to be completed for the building housing of Veolia's administrative headquarters in Aubervilliers. This nine-years commercial lease took effect on July 18, 2016 and the annual rent for the building is €16,590,104 excluding taxes and VAT.

Veolia Environnement recorded rental expenses of € 17,265,470 in respect of fiscal year 2019.

Caisse des dépôts et consignations (CDC) and its subsidiary, Icade SA, are considered related parties in the context of this lease agreement. CDC has a seat on the Veolia Environnement Board of Directors, as a legal entity, and also sits on the Icade SA Board of Directors. In addition, Olivier Mareuse, the representative of CDC on the Veolia Environnement Board of Directors, also sits on the Icade SA Board of Directors, as a private individual.

Relations with SM Conseil

Following the death of Mr. Serge Michel on March 15, 2019, the service contract agreed between Veolia Environnement and SM Conseil SAS on March 20, 2017 was ended early, effective March 1, 2018.

This service agreement, for memory, was entered into a three-year service agreement with SM Conseil SAS, commencing immediately. Under the terms of the agreement, Veolia Environnement retained this company to assist it (1) promote Veolia to other stakeholders and potential partners with the aim of developing its business and (2) identify potential decision-makers and managers likely to contribute to the implementation of its strategy.

The company SM Conseil SAS was chaired by Serge Michel who exercised, in addition, the role of non-voting member(censeur) of the Board of Directors.

This agreement provided for payment to SM Conseil of fixed remuneration of €400,000 per annum, adjusted in line with the SYNTEC index. It did not provide for the payment of "success fees".

Remuneration of €68,673 was paid by Veolia Environnement to SM Conseil under this agreement and in respect of early termination for fiscal year 2019, corresponding to services rendered in January and February 2019.

NOTE 14 SUBSEQUENT EVENTS

HAZARDOUS WASTE DEVELOPMENT IN NORTH AMERICA

On December 20, 2019, the Group announced it had signed an agreement to take over Alcoa USA Corporation's hazardous waste treatment site in Gum Springs, Arkansas (United States), through its subsidiary, Veolia North America, adding to the Group's hazardous waste treatment activities in the region. The transaction has been finalized on January 31, 2020 for a consideration of US\$250 million.

BOND ISSUE

On January 8, 2020, Veolia Environnement successfully issued a €500 million 11-year bond, with a January 2031 maturity. This bond bears a coupon of 0.664 % and was issued at par. The proceeds of this issuance will be used for general corporate purposes, and in particular in anticipation of bond repayments at the end of 2020. The high over-subscription rate, the quality of the investor base, their good diversification (over 160 orders from Europe and Asia) and the good conditions which were achieved are signals that Veolia's signature is viewed very favorably and of its financial strength.

NOTE 15

MAIN COMPANIES INCLUDED IN THE CONSOLIDATED FINANCIAL STATEMENTS

In 2019, Veolia Group consolidated or accounted for a total of 1,682 companies, of which the main companies are:

Company and address	French company registration number (Siret)	Consolidation method	% control	% interest
Veolia Environnement SA 21 rue La Boétie 75008 Paris	403 210 032 00104	FC	100.00	100.00
FRANCE				
WATER				
Veolia Eau – Compagnie Générale des Eaux 21 rue La Boétie 75008 PARIS	572 025 526 10945	FC	100.00	100.00
Veolia Water 21 rue La Boétie 75008 PARIS	421 345 042 00053	FC	100.00	100.00
Compagnie des Eaux et de l'Ozone 21 rue La Boétie 75008 PARIS	775 667 363 02470	FC	100.00	100.00
Société Française de Distribution d'Eau 28 boulevard de Pesaro 92000 Nanterre	542 054 945 00416	FC	99.62	99.62
Compagnie Fermière de Services Publics ZAC de la Pointe 9, rue des Frênes 72190 SARGE LES LE MANS	575 750 161 00904	FC	99.87	99.87
Compagnie Méditerranéenne d'Exploitation des Services d'Eau – CMESE 1 rue Albert Cohen Immeuble Plein Ouest A 13016 MARSEILLE	780 153 292 00187	FC	99.72	99.72
Société des Eaux de Melun	785 751 058 00047	FC	99.32	99.32

Zone Industrielle – 198/398, rue Foch 77000 Vaux Le Pénil				
Société des Eaux de Marseille 25, rue Edouard-Delanglade 13006 Marseille	057 806 150 00017	FC	98.43	98.43
WASTE				
Veolia Propreté 21 rue La Boétie 75008 PARIS	572 221 034 01230	FC	100.00	100.00
Routière de l'Est Parisien 28 boulevard de Pesaro 92000 Nanterre	612 006 965 00182	FC	100.00	100.00
ONYX Auvergne Rhône-Alpes 2/4, AVENUE DES CANUTS 69120 VAULX EN VELIN	302 590 898 00656	FC	100.00	100.00
Onyx Est ZI de la Hardt – Route de Haspelschiedt 57230 Bitche	305 205 411 00070	FC	95.00	95.00
Paul Grandjouan SACO 6 rue Nathalie Sarraute 44200 Nantes	867 800 518 00609	FC	100.00	100.00
OTUS 28 boulevard de Pesaro 92000 Nanterre	622 057 594 00385	FC	100.00	100.00
OTHER EUROPEAN COUNTRIES				
Veolia Water UK Plc and its subsidiaries 210 Pentonville Road London N1 9JY (United Kingdom)		FC	100.00	100.00
Veolia ES (UK) Ltd and its subsidiaries 210 Pentonville Road London - N19JY (United Kingdom)		FC	100.00	100.00
Veolia Umweltservice GmbH and its subsidiaries Hammerbrookstrasse 69 20097 Hamburg (Germany)		FC	100.00	100.00
Veolia Deutschland GmbH and its subsidiaries Lindencorso Unter den linden 21 10117 Berlin (Allemagne)		FC	100.00	100.00
Braunschweiger Versorgungs- AG &Co.KG Taubenstrasse 7 38106 Braunschweig (Germany)		FC	74.90	50.11
Aquiris SA Avenue de Vilvorde, 450 1130 Bruxelles (Belgium)		FC	99.00	99.00
Apa Nova Bucuresti Srl Strada Aristide Demetriade nr 2, Sector 1 Bucarest (Romania)		FC	73.69	73.69
Veolia Central & Eastern Europe and its subsidiaries 21 rue La Boétie 75008 Paris	433 934 809 00032	FC	100.00	100.00
Veolia Energie Praha, a.s. Na Florenci 2116/15, Nové Město, 110 00 Praha 1 (Czech Republic)		FC	100.00	83.05
Pražské Vodovody A Kanalizace a.s. Ke Kablu 971/1 102 00 Prague 10 (Czech Republic)		FC	51.00	51.00
Sofiyiska Voda AD Mladost region Mladost 4 Business Park Street Building 2a 1000 Sofia Sofia (Bulgaria)		FC	77.10	77.10
Veolia Energy UK PLC and its subsidiaries 210 Pentonville Road N1 9JY London (United Kingdom)		FC	100.00	99.99
Veolia NV-SA and its subsidiaries 52. quai Fernand-Demets 1070 – Bruxelles (Belgium)		FC	100.00	100.00

Siram SPA and its subsidiaries Via Bisceglie. 95 20152 Milano (Italy)		FC	100.00	99.99
Veolia Espana S.L.U. and its subsidiaries Cl Juan Ignacio Luca De tena. 4 28027 Madrid (Spain)		FC	100.00	99.99
Veolia Energia Polska ul. Puławska 2. Budynek Plac Unii C 02-566 WARSZAWA (Poland)		FC	60.00	60.00
Veolia Term SA and its subsidiaries ul Pulawska 2. 02-566 WARSZAWA (Poland)		FC	100.00	60.00
Veolia Energia Warszawa and its subsidiary ul Pulawska 2. 02-566 WARSZAWA (Poland)		FC	97.09	58.25
Veolia Nordic AB and its subsidiaries Hälsingegatan 47 113 31 Stockholm (Sweden)		FC	100.00	99.99
Veolia Nederland BV and its subsidiaries Wattbaan 2 3439 ML NIEUWEGEIN (Netherlands)		FC	100.00	99.99
Vilnius Energija Joconiu St. 13 02300 VILNIUS (Lithuania)		FC	100.00	99.99
Veolia Energy Hungary Co Ltd and its subsidiaries Szabadsag ut 301 2040 Budapest (Hungary)		FC	99.98	99.97
Veolia Energia Slovensko A.S. and its subsidiaries Einsteinova 25 851 01 BRATISLAVA (Slovakia)		FC	100.00	99.99
Veolia Energie CR A.S. and its subsidiaries 28.Rijna 3123/152 709 74 Ostrava (Czech Republic)		FC	83.06	83.05
REST OF THE WORLD				
VNA Regeneration Services LLC 4760 World Houston Parkway. Suite 100 Houston. TX 77032 (United States)		FC	100.00	100.00
Veolia Water Americas. LLC and its subsidiaries 53 State street 14th floor 02109 MA Boston (United States)		FC	100.00	100.00
Veolia Environmental Services North America 53 State street 14th floor 02109 MA Boston (United States)		FC	100.00	100.00
VES Technical Solutions LLC 53 State street 14th floor 02109 MA Boston (United States)		FC	100.00	100.00
Veolia ES Canada Industrial Services Inc. 1705. 3 ^{ème} avenue H1B 5M9 Montreal – Québec (Canada)		FC	100.00	100.00
Veolia Holding America Latina SA Calle Torrelaguna 60. 2 Planta 28043 Madrid (Spain)		FC	100.00	100.00
Beijing Yansan Veolia Water No. 5 Yanshan Xinghua East Road. 102500 BEIJING (China)		FC	50.00	50.00
Shenzhen Water (Group) Co. Ltd and its subsidiaries 23 Floor. Wan De Building Shennan Zhong Road Shenzhen. (China)		EA	45.00	25.00
Shanghai Pudong Veolia Water Corporation Ltd No. 703 Pujian Road. Pudong New District 200127 SHANGHAI (China)		EA	50.00	50.00
Changzhou CGE Water Co Ltd No.12 Juqian Road. CHANGZHOU Municipality. Jiangsu Province 213000 (China)		EA	49.00	24.99

Kunming CGE Water Supply Co Ltd No.6 Siyuan Road. Kunming Municipality. Yunnan Province 650231 (China)		EA	49.00	24.99
Veolia Korea and its subsidiaries East 16 F SFCnature Towers Building Chungyechou-ro 100 Jung-gu (South Korea)		FC	100.00	100.00
Veolia Water Australia and its subsidiaries Level 4. Bay Center. 65 Pirrama Road. Pyrmont NSW 2009 (Australia)		FC	100.00	100.00
Veolia Middle East and its subsidiaries 21 rue La Boétie 75008 Paris	505 190 801 00041	FC	100.00	100.00
Amendis 20 rue Imam Ghazali 90 000 Tanger (Morocco)		FC	100.00	100.00
REDAL SA 6 Zankat Al Hoceima. BP 161 10 000 Rabat (Morocco)		FC	100.00	100.00
Lanzhou Municipal Water Supply (Group) Co LTD No. 2 Hua Gong Street. XFCu District. LANZHOU. Gansu Province (China)		EA	35.84	18.27
Sharqiyah Desalination Co. SAOC PO Box 685. PC 114 Jibroo. (Sultanate of Oman)		EA	35.75	35.75
Tianjin Jinbin Veolia Water Co Ltd No2 Xinxiang Road. Bridge 4 Jin Tang Expressway. Dongli District Tianjin Municipality (Chine)		EA	49.00	49.00
Veolia Water – Veolia Environmental Service (Hong Kong) - VW- VES (HK) Ltd Units 7601-03&06-13.76/F. The Center. 99 Queen's Road Central. (Hong Kong)		FC	100.00	100.00
Veolia Environmental Services Australia Pty Ltd Level 4. Bay Center – 65 Pirrama Road NSW 2009 – Pyrmont (Australia)		FC	100.00	100.00
Veolia Environmental Services Asia Pte Ltd 143 Cecil Street. 17-00. GB Building 069542 (Singapore)		FC	100.00	100.00
Veolia Environmental Services China LTD Units 7601-02 and 06-13 76/F. the center. 99 Queen's road central (Hong-Kong)		FC	100.00	100.00
GLOBAL BUSINESSES				
Sade-Compagnie Générale de Travaux d'Hydraulique (CGTH-SADE) et ses filiales ZAC François Ory 23/25 avenue du docteur Lannelongue 75014 Paris	562 077 503 02584	FC	100.00	99.47
Veolia Water Technologies and its subsidiaries l'Aquarène 1. place Montgolfier 94417 St Maurice Cedex	414 986 216 00037	FC	100.00	100.00
OTV l'Aquarène – 1 place Montgolfier 94417 St Maurice Cedex	433 998 473 000 14	FC	100.00	100.00
SARP Industries et ses filiales 427. route du Hazay – Zone Portuaire Limay- Porcheville 78520 Limay	303 772 982 00029	FC	100.00	99.86
Société d'Assainissement Rationnel et de Pompage (SARP) et ses filiales 52 avenue des Champs Pierreux – 92000 Nanterre	775 734 817 00387	FC	100.00	99.68
Société Internationale de Dessalement (SIDEM) 20-22 rue de Clichy – 75009 Paris	342 500 956 000 20	FC	100.00	100.00

Veolia Nuclear Solutions. Inc et ses filiales 575 HFCh street. suite 330. Palo Alto 94301 CA Californie (United States)		FC	100.00	100.00
OTHER				
Veolia Energie International 21 rue La Boétie 75008 Paris	433 539 566 00045	FC	99.99	99.99

Consolidation method.

FC: Full consolidation –EA: Equity associate

The German subsidiaries of the Group are included in the enclosed consolidated financial statements. In accordance with sections 264(3), 264-B and 291 of the German Commercial Code (HGB), these entities may exempt from the obligation to publish an annual report and present consolidated financial statements under German GAAP. Subsidiaries that have opted for this exemption are listed below:

Publication exemption	COMPANY NAME	COUNTRY	CURRENCY
	ALTVATER CHERNIVZY	Ukraine	UAH
	ALTVATER KIEV	Ukraine	UAH
	ALTVATER TERNOPIL	Ukraine	UAH
	BIOCYCLING GmbH	Germany	EUR
	BIOMASSEANLAGE ESSENHEIM GmbH	Germany	EUR
	BRAUNSCHWEIGER NETZ GmbH	Germany	EUR
	BRAUNSCHWEIGER VERSORGUNGS-AG & Co. KG	Germany	EUR
	BRAUNSCHWEIGER VERSORGUNGS-VERWALTUNGS-AG	Germany	EUR
	DRESDNER ABFALLVERWERTUNGS GmbH	Germany	EUR
	EUROLOGISTIK UMWELTSERVICE GmbH	Germany	EUR
	GASVERSORGUNG GÖRLITZ GmbH	Germany	EUR
	GERAER STADTWIRTSCHAFT GmbH	Germany	EUR
	GLOBALIS BETEILIGUNGSGESELLSCHAFT mbH	Germany	EUR
Yes	GLOBALIS SERVICE GmbH & CO. KG	Germany	EUR
Yes	GUD GERAER UMWELTDIENSTE GmbH & Co. KG	Germany	EUR
	GUD GERAER UMWELTDIENSTE VERWALTUNGS GmbH	Germany	EUR
	HVT Handel Vertrieb Transport GmbH	Germany	EUR
	INTROTEC SCHWARZA GmbH	Germany	EUR
	JOB & MEHR GmbH	Germany	EUR
	KANALBETRIEBE FRITZ WITHOFS GmbH	Germany	EUR

	KOM-DIA GmbH	Germany	EUR
	MULTIPET GmbH	Germany	EUR
	MULTIPOINT GmbH	Germany	EUR
	ÖKOTEC Energiemanagement GmbH	Germany	EUR
	ONYX ROHR- UND KANAL-SERVICE GmbH	Germany	EUR
	Ostthüringer Wasser und Abwasser GmbH	Germany	EUR
	RECYCLING & ROHSTOFFVERWERTUNG KIEL GmbH	Germany	EUR
	RECYPET AG	Switzerland	CHF
Yes	ROHSTOFFHANDEL KIEL GmbH & Co. KG	Germany	EUR
	STADTENTWÄSSERUNG BRAUNSCHWEIG GmbH	Germany	EUR
	STADTREINIGUNG DRESDEN GmbH	Germany	EUR
	STADTWERKE GÖRLITZ Aktiengesellschaft	Germany	EUR
	STADTWERKE PULHEIM DIENSTE GmbH	Germany	EUR
	STADTWERKE WEISSWASSER GmbH	Germany	EUR
	STRATMANN ENTSORGUNG GmbH	Germany	EUR
	VBG VERWALTUNGS- UND BETEILIGUNGSGESELLSCHAFT mbH	Germany	EUR
	VEOLIA BS ENERGY BETEILIGUNGS GmbH	Germany	EUR
	VEOLIA DEUTSCHLAND GmbH	Germany	EUR
	VEOLIA ENERGIE DEUTSCHLAND GmbH	Germany	EUR
	VEOLIA ENVIRONNEMENT LAUSITZ GmbH	Germany	EUR
	VEOLIA GEBÄUDESERVICE DEUTSCHLAND GmbH	Germany	EUR
	VEOLIA INDUSTRIE DEUTSCHLAND GmbH	Germany	EUR
	VEOLIA INDUSTRIEPARK DEUTSCHLAND GmbH	Germany	EUR
	Veolia Infra Klärschlamm Deutschland GmbH	Germany	EUR
	VEOLIA Klärschlammverwertung Deutschland GmbH	Germany	EUR
	VEOLIA PET GERMANY GmbH	Germany	EUR
	VEOLIA PET SVENSKA AB	Sweden	SEK
	VEOLIA STADTWERKE BRAUNSCHWEIG BETEILIGUNGS- GmbH & Co.KG	Germany	EUR
	VEOLIA UMWELTSERVICE & CONSULTING GmbH	Germany	EUR
	VEOLIA UMWELTSERVICE BETEILIGUNGSVERWALTUNGS GmbH	Germany	EUR
	VEOLIA UMWELTSERVICE DUAL GmbH	Germany	EUR
	VEOLIA UMWELTSERVICE GmbH	Germany	EUR
	VEOLIA UMWELTSERVICE GmbH DEUTSCHLAND	Germany	EUR
	VEOLIA UMWELTSERVICE NORD GmbH	Germany	EUR
Yes	VEOLIA UMWELTSERVICE OST GmbH & Co. KG	Germany	EUR
	VEOLIA UMWELTSERVICE OST VERWALTUNGS GmbH	Germany	EUR
	VEOLIA UMWELTSERVICE RESSOURCENMANAGEMENT GmbH	Germany	EUR
Yes	VEOLIA UMWELTSERVICE SÜD GmbH & Co. KG	Germany	EUR
	VEOLIA UMWELTSERVICE SÜD VERWALTUNGS GmbH	Germany	EUR
	VEOLIA UMWELTSERVICE WERTSTOFFMANAGEMENT GmbH	Germany	EUR
	VEOLIA UMWELTSERVICE WEST GmbH	Germany	EUR



	VEOLIA VERWALTUNGSGESELLSCHAFT mbH	Germany	EUR
	VEOLIA WASSER DEUTSCHLAND GmbH	Germany	EUR
	VEOLIA WASSER KÖNIGSBRÜCK GmbH	Germany	EUR
	VEOLIA WASSER STORKOW GmbH	Germany	EUR
	VEOLIA WASSER WAGENFELD GMBH	Germany	EUR
	VEOLIA WASSER WAGENFELD VERWALTUNGS GMBH	Germany	EUR
	VEOLIA WASSER WEGELEBEN GmbH	Germany	EUR
	VKD Holding GmbH	Germany	EUR
	WASTEBOX DEUTSCHLAND GmbH	Germany	EUR

NOTE 16

AUDIT FEES

Audit fees incurred by the Group during fiscal years 2019 and 2018 total €28.1 million and €27.4 million, respectively, including:

- €22.7 million in 2019 and €22.8 million in 2018 in respect of the statutory audit of the accounts; and
- €5.4 million in 2019 and €4.6 million in 2018 in respect of services falling within the scope of diligences directly related to the audit engagement.