6. Balance sheet items

6.1. Intangible assets

Cost in thousands of €	**Licenses, patents & similar rights**	**Computer software**	**Rights to use land**	**Commercial assets**	**Other**	**Total**
As at 1 January 2017	23 635	84 115	75 618	57 856	16 291	257 515
Expenditure	75	3 761	17	-	-	3 853
Disposals and retirements	-4	-599	-	-	-	-603
Transfers [1]	38	266	-	-	-	304
Reclassification to (-) / from held for sale	-	1 005	-	-	-	1 005
Deconsolidations	-	-925	-	-	-	-925
Exchange gains and losses (-)	-42	-2 507	-5 057	-3 832	-612	-12 051
As at 31 December 2017	**23 702**	**85 116**	**70 578**	**54 023**	**15 679**	**249 098**
As at 1 January 2018	23 702	85 116	70 578	54 023	15 679	249 098
Expenditure		4 507	1	-	-	4 508
Disposals and retirements	-	-787	-14 777	-	-7	-15 571
Transfers [1]	-	-190	-	1 200	-1 001	9
Reclassification to (-) / from held for sale	-	-4	9 618	-	-	9 614
Deconsolidations	-73	-1 001	-	-19	-	-1 093
Exchange gains and losses (-)	-43	147	-175	-152	-205	-427
As at 31 December 2018	**23 587**	**87 787**	**65 246**	**55 053**	**14 466**	**246 138**

Accumulated amortization and impairment						
As at 1 January 2017	11 116	68 877	14 397	9 753	12 996	117 138
Charge for the year	1 454	4 300	1 393	3 636	1 072	11 854
Impairment losses	-	-	33	-	-	33
Disposals and retirements	-4	-347	-	-	-	-351
Deconsolidations	-	-60	-	-	-	-60
Reclassification to (-) / from held for sale	-	1	-34	-	-	-32
Exchange gains (-) and losses	-104	-2 046	-1 011	-977	-562	-4 700
As at 31 December 2017	**12 461**	**70 725**	**14 778**	**12 412**	**13 505**	**123 881**
As at 1 January 2018	12 461	70 725	14 778	12 412	13 505	123 881
Charge for the year	1 322	4 158	1 285	1 928	866	9 559
Impairment losses	492	58	-	-	-	550
Reversal impairment losses and depreciations	-	-	-101	-	-	-101
Disposals and retirements		-778	-2 148	-	-8	-2 934
Deconsolidations	-37	-983	-	-	-19	-1 039
Transfers [1]	-	-	-	211	-211	-
Reclassification to (-) / from held for sale	-	-4	1 528	-	-	1 523
Exchange gains (-) and losses	0	143	-33	177	-92	195
As at 31 December 2018	**14 239**	**73 318**	**15 309**	**14 729**	**14 041**	**131 636**
Carrying amount as at 31 December 2017	**11 241**	**14 391**	**55 800**	**41 611**	**2 174**	**125 217**
Carrying amount as at 31 December 2018	**9 347**	**14 469**	**49 937**	**40 324**	**424**	**114 502**

[1] *Total transfers equal zero when aggregating the balances of 'Intangible assets' and 'Property, plant and equipment' (see note 6.3.).*

The software expenditure mainly relate to additional licenses for and implementations of the MES project (Manufacturing Excellence System), the GRC project (Governance, Risk & Compliance), two automation pilot projects in the manufacturing area and ERP software (SAP) in general.

In 2017 the rights to use land of the Bekaert (Huizhou) Steel Cord Co Ltd plant were classified as Held for Sale. As part of the closure of the plant these were effectively sold in 2018. Similar, as part of the restructuring of the operations in Malaysia, part of the rights to use land were sold as well. Additional information regarding the reclassification from held for sale is provided under note 6.11. 'Assets classified as held for sale and liabilities associated with those assets'.

The deconsolidation impact in 2018 relates to the divestment of Solaronics SA (drying business). For further information on the deconsolidations, please see note 7.2. 'Effect of business disposals'.

No intangible assets have been identified as having an indefinite useful life at the balance sheet date.

6.2. Goodwill

This note mainly relates to goodwill on acquisition of subsidiaries. Goodwill in respect of joint ventures and associates is disclosed in note 6.4. 'Investments in joint ventures and associates'.

Cost in thousands of €	**2017**	**2018**
As at 1 January	170 923	168 131
Deconsolidation	-	-13 176
Exchange gains and losses (-)	-2 792	-763
As at 31 December	**168 131**	**154 192**

Impairment losses in thousands of €	**2017**	**2018**
As at 1 January	18 578	18 236
Deconsolidation	-	-13 176
Exchange gains (-) and losses	-342	-123
As at 31 December	**18 236**	**4 937**
Carrying amount as at 31 December	**149 895**	**149 255**

Following the divestment of the drying activities, the related fully-impaired goodwill has been derecognized.

Goodwill by cash-generating unit (CGU)

Goodwill acquired in a business combination is allocated on acquisition to the cash-generating units (CGU) that are expected to benefit from that business combination. The carrying amount of goodwill and any related movements of the period have been allocated as follows:

Segment in thousands of €	**Group of cash-generating units**	**Carrying amount 1 Jan 2017**	**Increases**	**Impairments**	**Exchange differences**	**Carrying amount 31 Dec 2017**
Subsidiaries						
EMEA	Bekaert Bradford UK Ltd	2 615	-	-	-92	2 523
EMEA	Combustion - heating	3 027	-	-	-	3 027
EMEA	Building Products	71	-	-	-	71
EMEA	Rubber Reinforcement	4 255	-	-	-	4 255
North America	Orrville plant (USA)	11 128	-	-	-1 347	9 781
Latin America	Inchalam group	899	-	-	-38	861
Latin America	Bekaert Ideal SL companies	844	-	-	-	844
Asia Pacific	Bekaert (Qingdao) Wire Products Co Ltd	385	-	-	-	385
Asia Pacific	Bekaert Jiangyin Wire Products Co Ltd	47	-	-	-	47
BBRG	BBRG	129 074			-973	128 101
Subtotal		**152 345**	**-**	**-**	**-2 450**	**149 895**
Joint ventures and associates						
Latin America	Belgo Bekaert Arames Ltda	4 381	-	-	-598	3 783
Latin America	BMB-Belgo Mineira Bekaert Artefatos de Arame Ltda	-	2 679	-	-366	2 313
Subtotal		**4 381**	**2 679**	**-**	**-964**	**6 096**
Total		**156 726**	**2 679**	**-**	**-3 414**	**155 991**

Segment in thousands of €	Group of cash-generating units	Carrying amount 1 Jan 2018	Increases	Impairments	Exchange differences	Carrying amount 31 Dec 2018
Subsidiaries						
EMEA	Bekaert Bradford UK Ltd	2 523	-	-	-21	2 502
EMEA	Combustion - heating	3 027	-	-	-	3 027
EMEA	Building Products	71	-	-	-	71
EMEA	Rubber Reinforcement	4 255	-	-	-	4 255
North America	Orrville plant (USA)	9 781	-	-	464	10 245
Latin America	Inchalam group	861	-	-	-62	799
Latin America	Bekaert Ideal SL companies	844	-	-	-	844
Asia Pacific	Bekaert (Qingdao) Wire Products Co Ltd	385	-	-	-	385
Asia Pacific	Bekaert Jiangyin Wire Products Co Ltd	47	-	-	-	47
BBRG	BBRG	128 101	-	-	-1 021	127 080
Subtotal		**149 895**	**-**	**-**	**-640**	**149 255**
Joint ventures and associates						
Latin America	Belgo Bekaert Arames Ltda	3 783	-	-	-401	3 382
Latin America	BMB-Belgo Mineira Bekaert Artefatos de Arame Ltda	2 313	-	-	-245	2 068
Subtotal		**6 096**	**-**	**-**	**-646**	**5 450**
Total		**155 991**	**-**	**-**	**-1 286**	**154 705**

In relation to the impairment testing of goodwill arising from the BBRG business combination, the following model characteristics have been used:

» a 5-year forecast timeframe of cash flows (in line with the latest business plan update), followed by a terminal value assumption based on a nominal perpetual growth rate of 2% (in 2017: 2%), which mainly is based on a conservative industrial GDP evolution assumption;

» the cash flows are based on an indepth business plan which was prepared as part of the dialogue with the lenders' syndicate about the running financing structure of BBRG;

» the cash flows reflect the evolution taking into account agreed action plans and are based on the assets in their current condition, without including the impacts of future restructuring not yet committed;

» only capital expenditure required to maintain the assets in good working order are included; future capital expenditures improving or enhancing the assets in excess of their originally assessed standard of performance are not considered;

» no cost structure improvements are taken into account unless they can be substantiated; and

» the cash outflows relating to working capital are calculated as a percentage of incremental sales based on the past performance of BBRG.

The discount factor for all tests is based on a (long-term) pre-tax cost of capital, the risks being implicit in the cash flows. A weighted average cost of capital (WACC) is determined for euro, US dollar and Chinese renminbi regions. For countries or businesses with a higher perceived risk, the WACC is raised with a country or business specific risk factor. Following the buy-out of the minority stakeholder in BBRG and the refinancing of BBRG's financial debt, the specific equity risk premium for BBRG compared to the general Group business context has been considered not appropriate any longer. The WACC is pre-tax based, since relevant cash flows are also pre-tax based. In determining the weight of the cost of debt vs the cost of equity, a target gearing (net debt relative to equity) of 50% is used. For cash flow models stated in real terms (without inflation), the nominal WACC is adjusted for the expected inflation rate. For cash flow models in nominal terms, the nominal WACC is used. All parameters used for the calculation of the discount factors are reviewed at least annually.

Discount rates for impairment testing 2018			**EUR region**	**USD region**	**CNY region**
Group target ratios					
Gearing: net debt/equity		50%			
% debt		33%			
% equity		67%			
% LT debt		75%			
% ST debt		25%			
Cost of Bekaert debt			**2.0%**	**3.9%**	**5.4%**
Long term interest rate			2.4%	4.5%	5.6%
Short term interest rate			0.9%	2.2%	5.0%
Cost of Bekaert equity (post tax)	**$= R_f + \beta . E_m$**		**8.3%**	**10.6%**	**12.5%**
Risk free rate = R_f			0.8%	3.0%	4.9%
Beta = β		1.2			
Market equity risk premium = E_m		6.3%			
BBRG specific risk premium				0.0%	
Cost of BBRG equity (post tax)				**10.6%**	
Corporate tax rate		**27%**			
Cost of Bekaert equity before tax			**11.4%**	**14.5%**	**17.1%**
Cost of BBRG equity before tax				**14.5%**	
Bekaert WACC - nominal			**8.3%**	**10.9%**	**13.2%**
BBRG WACC - nominal				**10.9%**	
Expected inflation			1.6%	1.9%	2.4%
Bekaert WACC in real terms			**6.7%**	**9.0%**	**10.8%**
BBRG WACC in real terms				**9.0%**	

Specific for the BBRG related goodwill, management is convinced that the profit restoration plan represents an ambitious, but realistic scenario which will bring the projected results conditional to a strict execution and implementation of the various initiatives included in this plan. Based on this, the headroom for impairment, i.e. the excess of the recoverable amount over the carrying amount of the BBRG CGU, is estimated at € 121.7 million (2017: € 123.6 million). The following scenarios illustrate the sensitivity of this headroom to changes in the key assumptions of the business plan:

» If the sales level would be 10% lower in all periods of the business plan, then headroom would be € 28.6 million lower (remaining € 93.1 million);

» If the discount factor would be 1% higher, then headroom would be € 59.5 million lower (remaining € 62.3 million);

- If the Underlying EBIT-margin would be 1.5% lower for all periods of the business plan, then headroom would be € 96.6 million lower (remaining € 25.2 million);

- The combined effect of a lower sales level by 10% and a lower Underlying EBIT margin by 1.5%, would result in a reduction of headroom by € 115.5 million (remaining € 6.2 million);

- The combined effect of a lower sales level by 10%, a lower underlying EBIT margin by 1.5% and a higher discount factor with 1%, then an impairment loss of € 40.8 million would be incurred.

Based on current knowledge, reasonable changes in key assumptions (including discount rate, sales and margin evolution) would not generate impairments for any of the cash-generating units for which goodwill has been allocated.

Discount rates for impairment testing 2017			**EUR region**	**USD region**	**CNY region**
Group target ratios					
Gearing: net debt/equity		50%			
% debt		33%			
% equity		67%			
% LT debt		75%			
% ST debt		25%			
Cost of Bekaert debt			**2.1%**	**3.6%**	**5.7%**
Long term interest rate			2.5%	4.2%	5.9%
Short term interest rate			1.0%	1.9%	5.3%
Cost of Bekaert equity (post tax)	**$= R_f + \beta \cdot E_m$**		**8.9%**	**10.7%**	**13.2%**
Risk free rate = R_f			0.6%	2.4%	4.9%
Beta = β		1.2			
Market equity risk premium = E_m		6.9%			
BBRG specific risk premium				1.0%	
Cost of BBRG equity (post tax)				**11.7%**	
Corporate tax rate		**27%**			
Cost of Bekaert equity before tax			**12.2%**	**14.6%**	**18.0%**
Cost of BBRG equity before tax				**16.0%**	
Bekaert WACC - nominal			**8.8%**	**10.9%**	**13.9%**
BBRG WACC - nominal				**11.9%**	
Expected inflation			1.6%	1.9%	2.4%
Bekaert WACC in real terms			**7.3%**	**9.0%**	**11.5%**
BBRG WACC in real terms				**10.0%**	

6.3. Property, plant and equipment

Cost in thousands of €	Land and buildings	Plant, machinery and equipment	Furniture and vehicles	Finance leases	Other PP&E	Assets under construc-tion	Total
As at 1 January 2017	1 131 435	2 711 051	102 210	12 483	9 049	139 823	4 106 052
Expenditure	48 224	155 300	11 303	254	2 326	55 002	272 410
Disposals and retirements	-3 918	-32 140	-6 875	-92	-10	-8	-43 043
Deconsolidations	-26 174	-11 990	-421	-	-	-690	-39 275
Transfers [1]	-	990	-	-990	-	-304	-304
Reclassification to (-) / from held for sale	30 173	12 410	463	-	-	1 089	44 135
Exchange gains and losses (-)	-68 186	-155 871	-5 202	-732	-196	-10 574	-240 761
Inflation effects on opening balances	1 676	2 047	213	-	-	-	3 936
Other inflation effects	-	-	-	-	-	9	9
As at 31 December 2017	**1 113 229**	**2 681 797**	**101 692**	**10 922**	**11 170**	**184 349**	**4 103 159**
As at 1 January 2018	1 113 229	2 681 797	101 692	10 922	11 170	184 349	4 103 159
Expenditure	44 958	181 877	12 145	242	8 698	-49 472	198 449
Disposals and retirements	-17 174	-41 746	-5 158	22	-75	-271	-64 402
Deconsolidations	-395	-707	-330	-	-	-5	-1 437
Transfers [1]	-	-	-	-	-	-9	-9
Reclassification to (-) / from held for sale	16 727	-57	-19	-	-480	-	16 172
Exchange gains and losses (-)	-4 359	1 888	-629	-542	-136	-2 038	-5 815
Inflation effects on opening balances	1 817	2 219	230	-	-	-	4 266
As at 31 December 2018	**1 154 803**	**2 825 271**	**107 931**	**10 645**	**19 178**	**132 554**	**4 250 382**

Accumulated depreciation and impairment							
As at 1 January 2017	526 854	1 963 819	83 924	2 355	4 001	-	2 580 953
Charge for the year	41 847	142 431	7 623	441	505	-	192 846
Impairment losses	171	4 595	6	-	-	-	4 772
Reversal impairment losses and depreciations	-4 395	-3 817	92	-132	-	-	-8 252
Disposals and retirements	-3 528	-29 801	-6 526	-72	-10	-	-39 936
Transfers[1]	-	846	-	-846	-	-	-
Deconsolidations	-2 251	-4 018	-224	-	-	-	-6 494
Reclassification to (-) / from held for sale	3 251	3 747	190	-	-	-	7 188
Exchange gains (-) and losses	-28 754	-106 117	-4 200	-125	-165	-	-139 360
Inflation effects on opening balances	588	1 370	198	-	-	-	2 156
As at 31 December 2017	**533 783**	**1 973 056**	**81 082**	**1 620**	**4 332**	**-**	**2 593 874**
As at 1 January 2018	533 783	1 973 056	81 082	1 620	4 332	-	2 593 874
Charge for the year	41 139	146 068	9 171	486	1 493	-	198 358
Impairment losses	8 092	26 893	156	-	-	-	35 141
Reversal impairment losses and depreciations	-9 845	-4 321	43	-71	-	-	-14 193
Disposals and retirements	-6 104	-39 657	-4 909	22	-12	-	-50 660
Deconsolidations	-186	-595	-255	-	-	-	-1 035
Reclassification to (-) / from held for sale	16 727	-57	-19	-	-2	-	16 650
Exchange gains (-) and losses	1 116	2 532	-436	-66	-97	-	3 049
Inflation effects on opening balances	706	1 641	211	-	-	-	2 557
As at 31 December 2018	**585 428**	**2 105 560**	**85 045**	**1 993**	**5 714**	**-**	**2 783 740**

[1] *Total transfers equal zero when aggregating the balances of 'Intangible assets' (see note 6.1.) and 'Property, plant and equipment'.*

in thousands of €	Land and buildings	Plant, machinery and equipment	Furniture and vehicles	Finance leases	Other PP&E	Assets under construc-tion	Total
Carrying amount as at 31 December 2017 before investment grants and reclassification of leases	**579 446**	**708 741**	**20 609**	**9 302**	**6 839**	**184 349**	**1 509 285**
Net investment grants	-6 179	-2 079	-	-	-	-	-8 257
Finance leases by asset category	7 260	1 841	200	-9 301	-	-	-
Carrying amount as at 31 December 2017	**580 527**	**708 503**	**20 809**	**-**	**6 839**	**184 349**	**1 501 028**
Carrying amount as at 31 December 2018 before investment grants and reclassification of leases	**569 374**	**719 712**	**22 885**	**8 651**	**13 463**	**132 554**	**1 466 642**
Net investment grants	-5 701	-1 493	-	-	-	-	-7 194
Finance leases by asset category	6 534	1 730	387	-8 651	-	-	-
Carrying amount as at 31 December 2018	**570 208**	**719 950**	**23 272**	**-**	**13 463**	**132 554**	**1 459 449**

Capital expenditure included capacity expansions and equipment upgrades across the group, but particularly in Central and Eastern Europe, China, India, Indonesia, Chili and in Advanced Cords. Apart from the regular retirements of outdated, (almost) fully depreciated equipment, the net disposal impact related mainly to the sale of buildings as part of the closure of the Bekaert (Huizhou) Steel Cord Co Ltd plant and the restructuring of the Malaysian operations. Impairment losses were incurred as part of the ongoing restructuring and plant closure programs in Italy, Costa Rica, Brazil and Malaysia, as well on assets employed in the sawing wire business. Impairment losses previously recorded in the Bekaert (Huizhou) Steel Cord Co Ltd plant on assets disposed of as a part of the closure project, were reversed.

The deconsolidation impact in 2018 relates to the divestment of Solaronics SA (drying business). For further information on the deconsolidations, please see note 7.2. 'Effect of business disposals'.

Inflation effects relate to the application of inflation accounting in Venezuela.

No items of PP&E are pledged as securities.

6.4. Investments in joint ventures and associates

The Group has no investments in entities qualified as associates.

Investments excluding related goodwill

Carrying amount in thousands of €	**2017**	**2018**
As at 1 January	142 201	159 328
Capital increases and decreases	-	188
Result for the year	26 857	24 875
Dividends	-30 089	-19 951
New equity method consolidations	42 390	-
Exchange gains and losses	-22 047	-16 240
Other comprehensive income	16	21
As at 31 December	**159 328**	**148 221**

For an analysis of the result for the year, please refer to note 5.7. 'Share in the results of joint ventures and associates'.

Exchange gains and losses relate mainly to the substantial swing in closing rates of the Brazilian real versus the euro (4.4 in 2018 vs 4.0 in 2017).

Capital increases in 2018 relate to Servicios Ideal AGF Inttegra Cía Ltda a new 50/50 joint venture established in Ecuador by Ideal Alambrec SA and Steel-AGF Ecuador SA.
New equity method consolidations in 2017 relate to ArcelorMittal Sumaré Ltda (Brazil), a former subsidiary of which Bekaert sold 55.5% to ArcelorMittal on 21 June 2017. ArcelorMittal Sumaré Ltda was subsequently merged into BMB-Belgo Mineira Bekaert Artefatos de Arame Ltda as from 1 November 2017.

Related goodwill

Cost in thousands of €	**2017**	**2018**
As at 1 January	4 381	6 096
New equity method consolidations	2 679	-
Exchange gains and losses	-964	-646
As at 31 December	**6 096**	**5 450**
Carrying amount of related goodwill as at 31 December	**6 096**	**5 450**
Total carrying amount of investments in joint ventures as at 31 December	**165 424**	**153 671**

The Group's share in the equity of joint ventures is analysed as follows:

in thousands of €		**2017**	**2018**
Joint ventures			
Belgo Bekaert Arames Ltda	Brazil	105 524	98 571
BMB-Belgo Mineira Bekaert Artefatos de Arame Ltda	Brazil	53 804	49 470
Servicios Ideal AGF Inttegra Cía Ltda [1]	Ecuador	-	180
Total for joint ventures excluding related goodwill		**159 328**	**148 221**
Carrying amount of related goodwill		**6 096**	**5 450**
Total for joint ventures including related goodwill		**165 424**	**153 671**

[1] *New 50/50 joint venture established by Ideal Alambrec SA and Steel-AGF Ecuador SA. Operations started in November 2018.*

The Brazilian joint ventures have been trying to compensate ICMS tax receivables with a total carrying amount of € 3.8 million (2017: € 1.2 million). They have also been facing claims relating to ICMS credits totaling € 7.5 million (2017: € 12.4 million). In 2018 about € 3.4 million were waived by paying € 2.2 million under an amnesty program (vs about € 13.2 million waived in 2017 by paying € 4.5 million). Several other tax claims, most of which date back several years, were filed for a total nominal amount of € 19.6 million (2017: € 20.1 million). Furthermore, as a result of a recent favorable court decision on COFINS (Federal VAT) amounts paid between 1992 and 2000, Belgo Bekaert Arames Ltda could recover € 3.1 million, provided it can present all required documentation underpinning its claim. Evidently, any potential gains and losses resulting from the above mentioned contingencies would only affect the Group to the extent of their interest in the joint ventures involved (i.e. 45%).
Unrecognized commitments to acquire property, plant and equipment amounted to € 9.1 million (2017: € 16.0 million), including € 7.4 million (2017: € 13.9 million) from other Bekaert companies. Furthermore, the Brazilian joint ventures have unrecognized commitments to purchase electricity over the next five years for an aggregate amount of € 56.4 million (2017: € 73.1 million).
In accordance with IFRS 12 'Disclosures of Interests in Other Entities', following information is provided on material joint ventures. The two Brazilian joint ventures have been aggregated in order to emphasize the predominance of the partnership with Arcelor-Mittal when analyzing the relative importance of the joint ventures.

Name of joint venture in thousands of €	**Country**	**Proportion of ownership interest (and voting rights) held by the Group at year-end** 2017	2018
Belgo Bekaert Arames Ltda	Brazil	45.0% (50.0%)	45.0% (50.0%)
BMB-Belgo Mineira Bekaert Artefatos de Arame Ltda	Brazil	44.5% (50.0%)	44.5% (50.0%)

Belgo Bekaert Arames Ltda manufactures and sells a wide variety of wire products mostly for industrial customers, and BMB manufactures and sells mainly wires and cables for rubber reinforcement in tires.

Brazilian joint ventures: income statement in thousands of €	**2017**	**2018**
Sales	783 602	819 005
Operating result (EBIT)	77 740	85 229
Interest income	5 240	7 108
Interest expense	-3 038	-10 197
Other financial income and expenses	-1 684	-1 151
Income taxes	-8 863	-12 842
Result for the period	69 395	68 147
Other comprehensive income for the period	35	46
Total comprehensive income for the period	69 430	68 193
Depreciation and amortization	19 117	21 718
EBITDA	96 857	106 947
Dividends received from the entity	30 089	19 951

Brazilian joint ventures: balance sheet in thousands of €	**2017**	**2018**
Current assets	258 529	263 364
Non-current assets	256 691	250 439
Current liabilities	-112 909	-132 774
Non-current liabilities	-48 713	-52 382
Net assets	**353 598**	**328 647**

Brazilian joint ventures: net debt elements in thousands of €	**2017**	**2018**
Non-current interest-bearing debt	1 841	12 333
Current interest-bearing debt	10 472	16 990
Total financial debt	**12 313**	**29 323**
Non-current financial receivables and cash guarantees	-23 585	-29 628
Cash and cash equivalents	-20 840	-20 520
Net debt	**-32 112**	**-20 825**

There are no restrictions to transfer funds in the form of cash and dividends.

Brazilian joint ventures: reconciliation with carrying amount in thousands of €	**2017**	**2018**
Net assets of Belgo Bekaert Arames Ltda	233 477	218 145
Proportion of the Group's ownership interest	45.0%	45.0%
Proportionate net assets	105 065	98 165
Consolidation adjustments	459	406
Carrying amount of the Group's interest in Belgo Bekaert Arames Ltda	**105 524**	**98 571**
Net assets of BMB-Belgo Mineira Bekaert Artefatos de Arame Ltda	120 121	110 502
Proportion of the Group's ownership interest	44.5%	44.5%
Proportionate net assets	53 454	49 173
Consolidation adjustments	350	297
Carrying amount of the Group's interest in BMB-Belgo Mineira Bekaert Artefatos de Arame Ltda	**53 804**	**49 470**
Carrying amount of the Group's interest in the Brazilian joint ventures	**159 328**	**148 041**

The following table reflects aggregate information for the other joint ventures which were not deemed material in this context.

Aggregate information of the other joint ventures in thousands of €	**2017**	**2018**
The Group's share in the result from continuing operations	-	-15
The Group's share of other comprehensive income	-	6
The Group's share of total comprehensive income	-	-9
Aggregate carrying amount of the Group's interests in these joint ventures	-	180

Bekaert has no contingent liabilities versus its Brazilian joint ventures.

6.5. Other non-current assets

in thousands of €	2017	2018
Non-current financial receivables and cash guarantees	6 259	7 332
Reimbursement rights and other non-current amounts receivable	6 369	2 958
Derivatives (cf. note 7.3.)	-	1 407
Overfunded employee benefit plans - non-current	12 915	11 428
Equity investments at FVTOCI	16 400	11 153
Total other non-current assets	**41 944**	**34 279**

The overfunded employee benefit plans mainly relate to the UK pension plans. For more information on this, please refer to note 6.15. ‘Employee benefit obligations’.

Equity investments at FVTOCI

Carrying amount in thousands of €	2017	2018
As at 1 January	17 499	16 400
Expenditure	342	133
Fair value changes	-1 389	-5 311
Exchange gains and losses	-52	-70
As at 31 December	**16 400**	**11 153**

The equity investments designated as at fair value through OCI (FVTOCI) in accordance with IFRS 9 ‘Financial Instruments’ mainly consist of:

» Shougang Concord Century Holdings Ltd, a Hong Kong Stock Exchange listed company. On this investment, a decrease in fair value of € -1.3 million was recognized through OCI (2017: € -1.4 million).
» Bekaert Xinyu Metal Products Co Ltd. On this investment, a decrease in fair value of € -4.0 million was recognized through OCI (2017: nil).
» Transportes Puelche Ltda, an investment held by Acma SA and Prodalam SA (Chile).

For more information on the revaluation reserve for investments designated as at fair value through equity, see note 6.13. ‘Retained earnings and other Group reserves’.

6.6. Deferred tax assets and liabilities

Carrying amount	Assets		Liabilities	
in thousands of €	2017	2018	2017	2018
As at 1 January	150 368	140 717	52 556	44 382
Increase or decrease via income statement	-12 453	5 475	-12 463	-1 597
Increase or decrease via OCI	1 025	-2 800	2 277	983
Deconsolidations	-2 003	-409	-6 926	75
Reclassification as held for sale	505	-	5 045	-
Change in accounting policies	-	-646	-	-646
Exchange gains and losses	-8 039	-1 431	-7 421	-2 802
Change in set-off of assets and liabilities	11 314	-2 503	11 314	-2 503
As at 31 December	**140 717**	**138 403**	**44 382**	**37 892**

Recognized deferred tax assets and liabilities

Deferred tax assets and liabilities are attributable to the following items:

	Assets		Liabilities		Net assets	
in thousands of €	2017	2018	2017	2018	2017	2018
Intangible assets	47 825	30 846	10 661	10 050	37 164	20 796
Property, plant and equipment	49 534	50 966	37 858	36 146	11 676	14 820
Financial assets	84	78	17 386	15 872	-17 302	-15 794
Inventories	10 400	9 864	1 727	4 401	8 673	5 463
Receivables	8 862	3 832	1 339	145	7 523	3 687
Other current assets	309	99	3 787	4 351	-3 478	-4 252
Employee benefit obligations	21 570	19 849	28	173	21 542	19 676
Other provisions	2 951	5 394	862	1 685	2 089	3 709
Other liabilities	13 295	15 706	16 997	13 835	-3 702	1 871
Tax deductible losses carried forward, tax credits and recoverable income taxes	32 150	50 535	-	-	32 150	50 535
Tax assets / liabilities	**186 980**	**187 169**	**90 645**	**86 658**	**96 335**	**100 511**
Set-off of assets and liabilities	-46 263	-48 766	-46 263	-48 766	-	-
Net tax assets / liabilities	**140 717**	**138 403**	**44 382**	**37 892**	**96 335**	**100 511**

The deferred taxes on property, plant and equipment mainly relate to differences in useful lives between IFRS and tax books, whereas the deferred taxes on intangible assets are mainly generated by intercompany gains which have been eliminated in the consolidated statements. The deferred tax liabilities on financial assets mainly relate to temporary differences arising from undistributed profits from subsidiaries and joint ventures.

Movements in deferred tax assets and liabilities arise from the following:

2017 in thousands of €	As at 1 January	Recognized via income statement	Recognized via OCI	Acquisitions and disposals [1]	Reclassifi-cations [2]	Exchange gains and losses	As at 31 December
Temporary differences							
Intangible assets	33 689	3 308	-	-	-	167	37 164
Property, plant and equipment	-6 036	14 794	-	4 616	-4 941	3 243	11 676
Financial assets	-16 473	-1 018	-2 263	2 305	-98	245	-17 302
Inventories	6 514	1 637	-	-	-	522	8 673
Receivables	10 206	-2 157	-	-	-	-526	7 523
Other current assets	-3 356	-747	-77	-	-	702	-3 478
Employee benefit obligations	29 438	-7 454	1 087	-	-	-1 529	21 542
Other provisions	6 483	-2 589	-	-1 353	-	-452	2 089
Other liabilities	-8 698	6 203	1	-645	499	-1 062	-3 702
Tax deductible losses carried forward, tax credits and recoverable income taxes	46 045	-11 967	-	-	-	-1 928	32 150
Total	**97 812**	**10**	**-1 252**	**4 923**	**-4 540**	**-618**	**96 335**

2018 in thousands of €	As at 1 January	Recognized via income statement	Recognized via OCI	Acquisitions and disposals [1]	Reclassifi-cations	Exchange gains and losses	As at 31 December
Temporary differences							
Intangible assets	37 164	-16 361	-	3	-	-10	20 796
Property, plant and equipment	11 676	1 624	-	-78	-	1 598	14 820
Financial assets	-17 302	2 477	-982	-	-	13	-15 794
Inventories	8 673	-2 989	-	-148	-	-73	5 463
Receivables	7 523	-3 876	-	-4	-	44	3 687
Other current assets	-3 478	-1 411	-76	-	-	713	-4 252
Employee benefit obligations	21 542	1 012	-2 725	-158	-	5	19 676
Other provisions	2 089	1 639	-	-	-	-19	3 709
Other liabilities	-3 702	6 174	-	-	-	-601	1 871
Tax deductible losses carried forward, tax credits and recoverable income taxes	32 150	18 783	-	-99	-	-299	50 535
Total	**96 335**	**7 072**	**-3 783**	**-484**	**-**	**1 371**	**100 511**

[1] *The acquisitions and disposals in 2018 relate to the disposal of the drying activities In 2017, it relates to the disposal of the majority stake in the rubber reinforcement plant in Sumaré (Brazil).*

[2] *See note 6.11. 'Assets classified as held for sale and liabilities associated with those assets'.*

Deferred taxes related to other comprehensive income (OCI)

2017 in thousands of €	Before tax	Tax impact	After tax
Exchange differences	-130 828	-	-130 828
Inflation adjustments	2 032	-	2 032
Cash flow hedges	-247	-76	-323
Available-for-sale investments	-1 389	-	-1 389
Remeasurement gains and losses on defined-benefit plans	15 089	-1 176	13 913
Share of OCI of joint ventures and associates	16	-	16
Total	**-115 327**	**-1 252**	**-116 579**

2018 in thousands of €	Before tax	Tax impact	After tax
Exchange differences	-36 324	-	-36 324
Inflation adjustments	2 535	-	2 535
Cash flow hedges	475	-76	399
Net fair value gain (+) / loss (-) on investments in equity instruments	-5 311	-	-5 311
Remeasurement gains and losses on defined-benefit plans	-1 387	-3 707	-5 094
Share of OCI of joint ventures and associates	21	-	21
Total	**-39 991**	**-3 783**	**-43 774**

Unrecognized deferred tax assets

Deferred tax assets related to deductible temporary differences have not been recognized for a gross amount of € 213.9 million (2017: € 178.9 million). The unrecognized deferred tax assets in respect of tax losses and tax credits are presented in the table by expiry date below.

Capital losses, trade losses and tax credits by expiry date

The following table presents the gross amounts of the tax losses and tax credits generating deferred tax assets of which some are unrecognized.

2017 in thousands of €		Expiring within 1 year	Expiring between 1 and 5 years	Expiring after more than 5 years	Not expiring	Total
Capital losses	*Gross value*	-	-	*11 836*	*13 262*	*25 098*
	Allowance	-	-	*-11 016*	*-13 262*	*-24 278*
	Net balance	-	-	820	-	820
Trade losses	*Gross value*	*28 236*	*127 117*	*41 559*	*578 677*	*775 589*
	Allowance	*-26 716*	*-110 578*	*-7 511*	*-519 845*	*-664 650*
	Net balance	1 520	16 539	34 048	58 832	110 939
Tax credits	*Gross value*	*58 010*	-	-	*20 904*	*78 914*
	Allowance	*-34 246*	-	-	*-20 592*	*-54 838*
	Net balance	23 764	-	-	312	24 076
Total	***Gross value***	***86 246***	***127 117***	***53 395***	***612 843***	***879 601***
	Allowance	***-60 962***	***-110 578***	***-18 527***	***-553 699***	***-743 766***
	Net balance	**25 284**	**16 539**	**34 868**	**59 144**	**135 835**

2018 in thousands of €		Expiring within 1 year	Expiring between 1 and 5 years	Expiring after more than 5 years	Not expiring	Total
Capital losses	*Gross value*	*1 051*	*-*	*1 919*	*29 792*	*32 762*
	Allowance	*-1 051*	*-*	*-1 919*	*-29 792*	*-32 762*
	Net balance	-	-	-	-	-
Trade losses	*Gross value*	*34 500*	*87 441*	*121 218*	*571 743*	*814 902*
	Allowance	*-21 880*	*-65 492*	*-60 717*	*-488 830*	*-636 919*
	Net balance	12 620	21 949	60 501	82 913	177 983
Tax credits	*Gross value*	*5 176*	*22 608*	*38 361*	*16 982*	*83 127*
	Allowance	*-2 307*	*-22 608*	*-16 035*	*-13 562*	*-54 512*
	Net balance	2 869	-	22 326	3 420	28 615
Total	***Gross value***	***40 727***	***110 049***	***161 498***	***618 517***	***930 791***
	Allowance	***-25 238***	***-88 100***	***-78 671***	***-532 184***	***-724 193***
	Net balance	**15 489**	**21 949**	**82 827**	**86 333**	**206 598**

6.7. Operating working capital

in thousands of €	2017	2018
Raw materials, consumables and spare parts	*253 508*	*301 538*
Work in progress and finished goods	*416 993*	*485 223*
Goods purchased for resale	*109 080*	*145 047*
Inventories	779 581	931 808
Trade receivables	836 809	772 731
Bills of exchange received	55 633	57 727
Advances paid	17 815	20 067
Trade payables	-665 196	-778 438
Advances received	-10 746	-11 259
Remuneration and social security payables	-120 341	-112 112
Employment-related taxes	-5 970	-5 867
Operating working capital	**887 586**	**874 657**

Carrying amount in thousands of €	2017	2018
As at 1 January	842 508	887 586
Organic increase or decrease	109 544	11 313
Write-downs and write-down reversals	8 588	-11 284
Deconsolidations	-26 472	-2 627
Impact inflation accounting	1 856	1 665
Reclassification to (-) / from assets held for sale	29 827	-
Exchange gains and losses (-)	-70 417	-11 996
Other	-7 849	-
As at 31 December	**887 586**	**874 657**

Weighted average operating working capital represented 20.4% of sales (2017: 21.4%).

Additional information is as follows:

» Inventories
The cost of sales includes expenses related to transport and handling of finished goods amounting to € 191.0 million (2017: € 184.1 million), which have never been capitalized in inventories. Movements in inventories in 2018 include write-downs of € -32.2 million (2017: € -18.0 million) and reversals of write-downs of € 21.3 million (2017: € 21.4 million).
Similar as in 2017, in 2018 no inventories were pledged as security for liabilities.

» Trade receivables and bills of exchange received
The following table presents the movements in the allowance for bad debt on trade receivables. No allowance is posted for bills of exchange received.

Allowance for bad debt in thousands of €	2017	2018
As at 1 January	-47 802	-40 880
Losses recognized in current year	-4 749	-4 167
Losses recognized in prior years - amounts used	4 965	401
Losses recognized in prior years - reversal of amounts not used	4 992	3 251
Deconsolidations	-	19
Reclassification to / from (-) assets held for sale	-954	-
Exchange gains and losses (-)	2 669	558
As at 31 December	**-40 880**	**-40 818**

More information about allowances and past-due receivables is provided in the following table:

Trade receivables and bills of exchange received in thousands of €	**2017**	**2018**
Gross amount	933 322	871 276
Allowance for bad debts (impaired)	-40 880	-40 818
Net carrying amount	892 442	830 458
of which past due but not impaired		
amount	*122 560*	*121 023*
average number of days outstanding	*84*	*83*

For more information on credit enhancement techniques, see note 7.3. ‘Financial risk management and financial derivatives’.

6.8. Other receivables

Carrying amount in thousands of €	**2017**	**2018**
As at 1 January	108 484	126 876
Increase or decrease	20 173	5 038
Write-downs (-) and write-down reversals	-19	-1 155
Deconsolidations	-6 861	-733
Reclassifications	13 060	-
Exchange gains and losses	-7 960	353
As at 31 December	**126 876**	**130 379**

Other receivables mainly relate to income taxes (€ 49.5 million (2017: € 50.1 million)), VAT and other taxes (€ 65.0 million (2017: € 61.4 million)) and social loans to employees (€ 4.4 million (2017: € 4.3 million)). See also note 6.20. ’Tax positions’. Write-downs of other receivables are included in note 5.5. ‘Other financial income and expense’.

6.9. Cash & cash equivalents and short-term deposits

Carrying amount in thousands of €	**2017**	**2018**
Cash & cash equivalents	418 779	398 273
Short-term deposits	50 406	50 036

For the changes in cash & cash equivalents, please refer to the consolidated cash flow statement and to note 7.1. ‘Notes to the cash flow statement’. Cash equivalents and short-term deposits do not include any listed securities or equity instruments at the balance sheet date. Cash & cash equivalents held in Venezuela (€ 2.2 million vs € 2.0 million in 2017) are not available for use by the Group due to local capital controls and limited exchangeability.

6.10. Other current assets

Carrying amount in thousands of €	2017	2018
Current loans and receivables	8 447	20 186
Advances paid	17 815	20 067
Derivatives (cf. note 7.3.)	6 159	8 045
Deferred charges and accrued income	11 908	10 132
As at 31 December	**44 329**	**58 430**

The current loans and receivables mainly relate to receivables from the disposal of the majority stake in the rubber reinforcement plant Sumaré (Brazil) last year (€ 4.6 million, same amount as in 2017), the disposal of the drying activities in 2018 (€ 0.8 million), a receivable towards OVAM (€ 10.2 million) relating to an environmental provision in Belgium and various cash guarantees (€ 3.1 million (2017: € 2.1 million)).

6.11. Assets classified as held for sale and liabilities associated with those assets

Carrying amount (net) in thousands of €	2017	2018
As at 1 January	112 361	8 093
Increases and decreases (-)	-103 732	-7 524
Exchange gains and losses	-535	-23
As at 31 December	**8 093**	**546**

in thousands of €	2017	2018
Intangible assets	8 093	-
Property, plant and equipment	-	460
Trade receivables	-	5
Advances paid to vendors	-	66
Other current assets	-	15
Total assets classified as held for sale	**8 093**	**546**
Trade payables	-	45
Other current liabilities	-	40
Total liabilities associated with assets classified as held for sale	**-**	**85**

The assets classified as held for sale have decreased due to the disposal of rights to use land of Bekaert (Huizhou) Steel Cord Co Ltd (€ -8.1 million) (2017: € 8.1 million) and increased by property received as payment by customers in Ecuador and Peru (€ 0.5 million).

6.12. Ordinary shares, treasury shares and equity-settled share-based payments

Issued capital in thousands of €		2017 Nominal value	2017 Number of shares	2018 Nominal value	2018 Number of shares
1	As at 1 January	177 612	60 347 525	177 690	60 373 841
	Movements in the year				
	Issue of new shares	*78*	*26 316*	*103*	*34 600*
	As at 31 December	177 690	60 373 841	177 793	60 408 441
2	Structure				
2.1	Classes of ordinary shares				
	Ordinary shares without par value	*177 690*	*60 373 841*	*177 793*	*60 408 441*
2.2	Registered shares		402 538		21 857 284
	Non-material shares		59 971 303		38 551 157
Authorized capital not issued		**176 000**		**176 000**	

A total of 34 600 subscription rights were exercised under the Company's SOP 2005-2009 stock option plan in 2018, requiring the issue of a total of 34 600 new shares of the Company.

From the 3 636 280 treasury shares held as of 31 December 2017, the Company disposed of 86 248 shares in connection with share-based payment and personal shareholding requirement plans. A total of 352 000 treasury shares have been purchased. No treasury shares were cancelled in 2018. As a result, the Company held an aggregate 3 902 032 treasury shares as of 31 December 2018.

Stock option plans ('SOP')

Details of the stock option plans which showed an outstanding balance either at the balance sheet date or at the previous balance sheet date, are as follows:

Overview of SOP2 Stock Option Plan

Date offered	Date granted	Exercise price (in €)	Number of options Granted	Exercised	Forfeited	Out-standing	First exercise period	Last exercise period
21.12.2006	19.02.2007	30.175	37 500	27 500	-	10 000	22.05 - 30.06.2010	15.11 - 15.12.2021
20.12.2007	18.02.2008	28.335	30 630	11 310	-	19 320	22.05 - 30.06.2011	15.11 - 15.12.2022
18.12.2008	16.02.2009	16.660	64 500	64 500	-	-	22.05 - 30.06.2012	15.11 - 15.12.2018
17.12.2009	15.02.2010	33.990	49 500	5 000	-	44 500	22.05 - 30.06.2013	15.11 - 15.12.2019
			182 130	**108 310**	**-**	**73 820**		

Overview of SOP 2005-2009 Stock Option Plan

Date offered	Date granted	Date of issue of subscription rights	Exercise price (in €)	Number of subscription rights: Granted	Exercised	Forfeited	Out-standing	First exercise period	Last exercise period
22.12.2005	20.02.2006	22.03.2006	23.795	190 698	184 283	15	6 400	22.05 - 30.06.2009	15.11 - 15.12.2020
21.12.2006	19.02.2007	22.03.2007	30.175	153 810	144 240	600	8 970	22.05 - 30.06.2010	15.11 - 15.12.2021
20.12.2007	18.02.2008	22.04.2008	28.335	215 100	147 550	12 700	54 850	22.05 - 30.06.2011	15.11 - 15.12.2022
18.12.2008	16.02.2009	20.10.2009	16.660	288 150	268 650	19 500	-	22.05 - 30.06.2012	15.11 - 15.12.2018
17.12.2009	15.02.2010	08.09.2010	33.990	225 450	69 600	52 500	103 350	22.05 - 30.06.2013	15.11 - 15.12.2019
				1 073 208	**814 323**	**85 315**	**173 570**		

Overview of SOP 2010-2014 Stock Option Plan

Date offered	Date granted	Exercise price (in €)	Number of options: Granted	Exercised	Forfeited	Out-standing	First exercise period	Last exercise period
16.12.2010	14.02.2011	77.000	360 925	-	65 200	295 725	28.02 - 13.04.2014	Mid Nov.- 15.12.2020
22.12.2011	20.02.2012	25.140	287 800	231 100	2 600	54 100	27.02 - 12.04.2015	Mid Nov. - 21.12.2021
20.12.2012	18.02.2013	19.200	267 200	215 342	2 700	49 158	End Feb. - 10.04.2016	Mid Nov. - 19.12.2022
29.03.2013	28.05.2013	21.450	260 000	126 000	-	134 000	End Feb. - 09.04.2017	End Feb. - 28.03.2023
19.12.2013	17.02.2014	25.380	373 450	188 250	2 400	182 800	End Feb. - 09.04.2017	Mid Nov. - 18.12.2023
18.12.2014	16.02.2015	26.055	349 810	22 000	18 510	309 300	End Feb. - 08.04.2018	Mid Nov. - 17.12.2024
			1 899 185	**782 692**	**91 410**	**1 025 083**		

Overview of SOP 2015-2017 Stock Option Plan

Date offered	Date granted	Exercise price (in €)	Number of options: Granted	Exercised	Forfeited	Out-standing	First exercise period	Last exercise period
17.12.2015	15.02.2016	26.375	227 250	-	4 500	222 750	End Feb. - 07.04.2019	Mid Nov. - 16.12.2025
15.12.2016	13.02.2017	39.426	273 325	-	3 000	270 325	End Feb. - 12.04.2020	Mid Nov. - 14.12.2026
21.12.2017	20.02.2018	34.600	225 475	-	-	225 475	End Feb. - 11.04.2021	Mid Nov. - 20.12.2027
			726 050	**-**	**7 500**	**718 550**		

SOP2 Stock Option Plan	2017 Number of options	2017 Weighted average exercise price (in €)	2018 Number of options	2018 Weighted average exercise price (in €)
Outstanding as at 1 January	87 820	29.549	87 820	29.549
Exercised during the year	-	-	-14 000	16.660
Outstanding as at 31 December	**87 820**	**29.549**	**73 820**	**31.993**

SOP 2005-2009 Stock Option Plan	2017 Number of subscription rights	2017 Weighted average exercise price (in €)	2018 Number of subscription rights	2018 Weighted average exercise price (in €)
Outstanding as at 1 January	234 486	29.120	208 170	29.142
Exercised during the year	-26 316	28.948	-34 600	16.660
Outstanding as at 31 December	**208 170**	**29.142**	**173 570**	**31.630**

SOP 2010-2014 Stock Option Plan	2017 Number of options	2017 Weighted average exercise price (in €)	2018 Number of options	2018 Weighted average exercise price (in €)
Outstanding as at 1 January	1 481 843	34.760	1 075 993	38.972
Exercised during the year	-403 150	23.577	-37 200	24.969
Forfeited during the year	-2 700	26.055	-13 710	26.055
Outstanding as at 31 December	**1 075 993**	**38.972**	**1 025 083**	**39.653**

SOP 2015-2017 Stock Option Plan	2017 Number of options	2017 Weighted average exercise price (in €)	2018 Number of options	2018 Weighted average exercise price (in €)
Outstanding as at 1 January	227 250	26.375	493 075	33.530
Granted during the year	273 325	39.426	225 475	34.600
Forfeited during the year	-7 500	31.595	-	-
Outstanding as at 31 December	**493 075**	**33.530**	**718 550**	**33.866**

Weighted average remaining contractual life in years	**2017**	**2018**
SOP2	2.2	1.4
SOP 2005-2009	2.7	2.0
SOP 2010-2014	5.2	4.2
SOP 2015-2017	8.5	8.0

The weighted average share price at the date of exercise in 2018 was € 22.26 for the SOP2 options (2017: n/a), € 25.49 for the SOP 2005-2009 subscription rights (2017: € 45.13) and € 38.22 for the SOP 2010-2014 options (2017: € 46.24). The exercise price of the subscription rights and options is equal to the lower of (i) the average closing price of the Company's share during the thirty days preceding the date of the offer, and (ii) the last closing price preceding the date of the offer. When subscription rights are exercised under the SOP 2005-2009 plan, equity is increased by the amount of the proceeds received. Under the terms of the SOP2 plan any subscription rights or options granted through 2004 were vested immediately.

Under the terms of the SOP 2010-2014 stock option plan, options to acquire existing Company shares have been offered to the members of the Bekaert Group Executive, the Senior Vice Presidents and senior executive personnel during the period 2010-2014. The grant dates of each offering were scheduled in the period 2011-2015. The exercise price of the SOP 2010-2014 options was determined in the same manner as in the previous plans. The vesting conditions of the SOP 2010-2014 grants, as well as of the SOP 2005-2009 grants and of the SOP2 grants beginning in 2006, are such that the subscription rights or options will be fully vested on 1 January of the fourth year after the date of the offer. In accordance with the Economic Recovery Act of 27 March 2009, the exercise period of the SOP2 options and SOP 2005-2009 subscription rights granted in 2006, 2007 and 2008 was extended by five years in favor of the persons who were plan beneficiaries and subject to Belgian income tax at the time such extension was offered. The incremental fair value granted as a result of this amounts to € 0.3 million.

The options granted under SOP2, SOP 2010-2014 and SOP 2015-2017 and the subscription rights granted under SOP 2005-2009 are recognized at fair value at grant date in accordance with IFRS 2 (see note 6.13. 'Retained earnings and other Group reserves'). The fair value of the options is determined using a binomial pricing model. For the tranches that entailed an expense in the current or prior period, inputs and outcome of this pricing model are detailed below:

Pricing model details ***Stock option plan 2015-2017***	**Granted in February 2016**	**Granted in February 2017**	**Granted in February 2018**
Inputs to the model			
Share price at grant date (in €)	27.25	39.39	37.40
Exercise price (in €)	26.38	39.43	34.60
Expected volatility	39%	39%	39%
Expected dividend yield	3%	3%	3%
Vesting period (years)	3.00	3.00	3.00
Contractual life (years)	10	10	10
Employee exit rate	3%	3%	3%
Risk-free interest rate	0.05%	-0.18%	0.08%
Exercise factor	1.40	1.40	1.40
Outcome of the model			
Fair value (in €)	7.44	10.32	10.61
Outstanding options	225 750	270 325	225 475

The model allows for the effects of early exercise through an exercise factor. An exercise factor of 1.40 stands for the assumption that the beneficiaries exercise the options and the subscription rights after the vesting date when the share price exceeds the exercise price by 40% (on average).

During 2018, 225 475 options (2017: 273 325) were granted under SOP 2015-2017 at a fair value per unit of € 10.61 (2017: € 10.32). The Group has recorded an expense against equity of € 2.6 million (2017: € 2.6 million) for the options granted, based on their fair value and vesting period.

Performance Share Plan ('PSP')

The members of the Bekaert Group Executive, the senior management and a limited number of management staff members of the Company and a number of its subsidiaries received during 2015, 2016 and 2017 Performance Share Units entitling the beneficiary to acquire Performance Shares subject to the conditions of the Performance Share Plan 2015-2017. These Performance Share Units will vest following a vesting period of three years, conditional to the achievement of a pre-set performance target. The performance target was set by the Board of Directors, in line with the Company strategy. For more information we refer to the 'Remuneration Report' in the 'Report of the Board of Directors'.

Overview of Performance Share Plan

		Number of units					
	Date granted	**Granted**	**Delivered**	**Forfeited**	**Expired**	**Out-standing**	**Expiry date**
PSP 2015-2017	17.12.2015	50 850	-	1 950	48 900	-	31.12.2018
PSP 2015-2017	29.02.2016	10 000	-	-	10 000	-	31.12.2018
PSP 2015-2017	30.06.2016	2 500	-	833	1 667	-	31.12.2018
PSP 2015-2017	15.12.2016	52 450	-	4 233	-	48 217	31.12.2019
PSP 2015-2017	06.03.2017	10 000	-	-	-	10 000	31.12.2019
PSP 2015-2017	01.09.2017	5 000	-	-	-	5 000	31.12.2019
PSP 2015-2017	21.12.2017	55 250	-	2 267	-	52 983	31.12.2020
		186 050	**-**	**9 283**	**60 567**	**116 200**	

The Performance Share Units granted under these plans are recognized at fair value at grant date in accordance with IFRS 2 (see note 6.13. 'Retained earnings and other Group reserves'). The fair value of the Performance Share Units under the Performance Share Plan 2015-2017 is determined using a binomial pricing model. For the outstanding tranches, inputs and outcome of the pricing model are detailed below:

	Granted in					
Pricing model details ***Performance Share Plan***	**February 2016**	**July 2016**	**December 2016**	**March 2017**	**September 2017**	**December 2017**
Inputs to the model						
Share price at grant date (in €)	32.00	38.38	39.49	46.90	40.58	34.60
Expected volatility	39%	39%	39%	39%	39%	39%
Expected dividend yield	3%	3%	3%	3%	3%	3%
Vesting period (years)	2.83	2.50	3.00	2.83	2.25	3.00
Employee exit rate	3%	3%	3%	0%	3%	3%
Risk-free interest rate	-0.41%	-0.56%	-0.53%	-0.53%	-0.55%	-0.46%
Outcome of the model						
Fair value (in €)	46.89	50.30	52.15	46.90	54.34	40.19
Outstanding PSP Units	-	-	48 217	10 000	5 000	52 983

In 2017 an offer of 55 250 Performance Share Units was made under the terms of the Performance Share Plan 2015-2017. The granted units represent a fair value of € 2.2 million. The Group has recorded an expense against equity of € 3.0 million (2017: € 2.0 million) for the Performance Share Units granted, based on their fair value and vesting period.

In 2019 an offer of 178 233 equity settled performance share units was made under the terms of the PSP 2018-2020 Performance Share Plan. See note 7.6. 'Events after the balance sheet date'.

Personal Shareholding Requirement Plan ('PSR')

In March 2016, the Company introduced a Personal Shareholding Requirement Plan for the Chief Executive Officer and the other members of the Bekaert Group Executive ('BGE'), pursuant to which they can build and maintain a personal shareholding in Company shares and whereby the acquisition of the number of Company shares is supported by a so-called Company matching mechanism. The Company matching mechanism provides that the Company will match the BGE member's investment in Company shares in year x, with a direct grant of a similar number of Company shares as acquired by the BGE member (such grant to be made at the end of year x + 2). These PSR units will vest following a vesting period of three years, conditional to a service condition subject to bad or good leaver conditions. For more information we refer to the 'Remuneration Report' in the 'Report of the Board of Directors'.

Overview of Personal Shareholding Requirement Plan

	Date acquired	Number of units: Acquired	Matched	Forfeited	Outstanding	Expiry date
PSR 2016	31.03.2016	18 324	17 796	528	-	31.12.2018
PSR 2016	30.06.2016	2 003	2 003	-	-	31.12.2018
PSR 2016	31.03.2017	14 668	1 012	1 240	12 416	31.12.2019
PSR 2016	01.09.2017	2 523	-	-	2 523	31.12.2019
PSR 2016	14.05.2018	15 251	530	1 060	13 661	31.12.2020
		52 769	**21 341**	**2 828**	**28 600**	

The matching shares to be granted under the Personal Shareholding Requirement Plan 2016 are recognized at fair value at start date in accordance with IFRS 2 (see note 6.13. 'Retained earnings and other Group reserves'). The fair value of the matching shares is determined using a binomial pricing model. For the outstanding tranches, inputs and outcome of this pricing model are detailed below:

Pricing model details ***Personal Shareholding Requirement plan***	**To be matched in December 2018**		**To be matched in December 2019**		**To be matched in December 2020**
	Start date March 2016	**Start date June 2016**	**Start date March 2017**	**Start date Sep 2017**	**Start date May 2018**
Inputs to the model					
Share price at start date (in €)	35.71	38.97	45.87	40.04	34.00
Expected volatility	39%	39%	39%	39%	39%
Expected dividend yield	3%	3%	3%	3%	3%
Vesting period (years)	2.75	2.50	2.75	2.33	2.60
Employee exit rate	4%	4%	4%	4%	4%
Risk-free interest rate	-0.40%	-0.01%	-0.51%	-0.54%	-0.39%
Outcome of the model					
Fair value (in €)	29.27	32.16	37.60	33.20	27.95
Outstanding PSR Units	-	-	12 416	2 523	13 661

The matching shares to be granted represent a fair value of € 0.9 million (2017: € 1.1 million). The Group has recorded an expense against equity of € 0.6 million (2017: € 0.2 million) for the matching shares to be granted, based on their fair value and vesting period.

BBRG Management Incentive Plan ('MIP')

As from 2016, members of the BBRG management were granted the right to acquire a certain number of shares in BBRG Holding (UK) Ltd (the parent company of BBRG) under the Management Incentive Program ('MIP'), the conditions of which were set by the Board of Directors of BBRG. After the acquisition of all interests held by Ontario Teachers' Pension Plan ('OTPP') in BBRG, the MIP was unwound and all beneficiaries transferred their shares back to their employer. The MIP constituted a form of equity-settled share-based payment under IFRS 2. Consequently, the Group has recorded an expense against equity of € 0.6 million (2017: € 0.3 million) for the shares granted, based on their grant-date fair value and vesting period.

6.13. Retained earnings and other Group reserves

Carrying amount in thousands of €	**2017**	**2018**
Hedging reserve	*-296*	*-*
Revaluation reserve for non-consolidated equity investments	*1 057*	*-14 489*
Remeasurement reserve for defined-benefit plans	*-70 683*	*-68 267*
NCI put option reserve	*-8 206*	*-8 206*
Deferred tax reserve	*30 307*	*26 694*
Other reserves	-47 821	-64 268
Cumulative translation adjustments	-105 723	-130 102
Total other Group reserves	**-153 544**	**-194 370**
Treasury shares	**-103 037**	**-108 843**
Retained earnings	**1 529 268**	**1 484 600**

In the following sections of this disclosure, the movements in the Group reserves and in retained earnings are presented and commented.

Hedging reserve in thousands of €	**2017**	**2018**
As at 1 January	-148	-296
Recycled to income statement	-209	296
Fair value changes to hedging instruments	61	-
As at 31 December	**-296**	**-**
Of which		
FX contracts	*-296*	*-*

Changes in the fair value of hedging instruments designated as effective cash flow hedges are recognized directly in equity. In accordance with IFRSs hedge accounting policies for cash flow hedges, exchange gains or losses arising from translating the hedged items at the closing rate are offset by recycling the equivalent amounts to the income statement. All cash flow hedges expired in 2018.

Revaluation reserve for non-consolidated equity investments in thousands of €	**2017**	**2018**
As at 1 January (as reported)	2 446	1 057
Restatement	-	-10 240
As at 1 January (restated)	2 446	-9 183
Fair value changes	-1 389	-5 306
As at 31 December	**1 057**	**-14 489**
Of which		
Investment in Xinyu Xinsteel Metal Products Co. Ltd	*-*	*-3 980*
Investment in Shougang Concord Century Holdings Ltd	*1 057*	*-10 601*
Other investments	*-*	*92*

The revaluation of the investment in Shougang Concord Century Holdings Ltd is based on the closing price of the share on the Hong Kong Stock Exchange. The restatement relates to IFRS 9 superseding IAS 39 (see note 2.8. 'Restatement and reclassification effects'). The fair value of the investment in Xinyu Xinsteel Metal Products Co Ltd is determined using a discounted cash flow model based on the company's most recent strategic plan for 2019-2023. See also note 6.5. 'Other non-current assets'.

Remeasurement reserve for defined-benefit plans in thousands of €	**2017**	**2018**
As at 1 January	-80 743	-70 683
Remeasurements of the period	10 629	-3 410
Inflation effects	-534	-578
Changes in Group structure	-35	6 404
As at 31 December	**-70 683**	**-68 267**

The remeasurements originate from using different actuarial assumptions in calculating the defined-benefit obligation, from differences with actual returns on plan assets at the balance sheet date and any changes in unrecognized assets due to the asset ceiling principle (see note 6.15. 'Employee benefit obligations').

NCI put option reserve

The 'NCI put option reserve' primarily consists of a liability of € 8.2 million that has initially been set up at fair value versus equity, which represents the put option granted to Maccaferri on its remaining non-controlling interests in Bekaert Maccaferri Underground Solutions BVBA. Any subsequent changes in fair value of this financial liability are recognized through income statement in accordance with IFRS.

Deferred tax reserve in thousands of €	**2017**	**2018**
As at 1 January	30 832	30 307
Deferred taxes relating to other comprehensive income	-705	-2 824
Inflation effects	181	197
Changes in Group structure	-1	-986
As at 31 December	**30 307**	**26 694**

Deferred taxes relating to other comprehensive income are also recognized in OCI (see note 6.6. 'Deferred tax assets and liabilities').

Treasury shares in thousands of €	**2017**	**2018**
As at 1 January	-127 974	-103 037
Shares purchased	-6 301	-12 961
Shares sold	31 238	7 155
As at 31 December	**-103 037**	**-108 843**

352 000 shares were bought back in 2018 (2017: 172 719), both to anticipate any dilution and to hedge the cash flow risk on share-based payment plans, while 86 248 treasury shares were sold to the beneficiaries of the share-based payment plans of the Group (2017: 421 885). Treasury shares are accounted for using the FIFO principle (first-in, first-out). Gains and losses on disposals of treasury shares are directly recognized through retained earnings (see movements in retained earnings on the next page). See also note 6.12. 'Ordinary shares, treasury shares and equity-settled share-based payments'.

Cumulative translation adjustments in thousands of €	**2017**	**2018**
As at 1 January	4 286	-105 723
Exchange differences on dividends declared	-4 043	-7 158
Recycled to income statement - relating to disposed entities or step acquisitions	6 895	599
Changes in Group structure	-2 372	6 670
Movements arising from exchange rate fluctuations	-110 489	-24 490
As at 31 December	**-105 723**	**-130 102**
Of which relating to entities with following functional currencies		
Chinese renminbi	*102 425*	*96 904*
US dollar	*18 140*	*29 659*
Brazilian real	*-146 811*	*-166 524*
Chilean peso	*-5 377*	*-12 345*
Venezuelan bolivar	*-57 338*	*-59 691*
Indian rupee	*-5 076*	*-6 535*
Czech koruna	*9 605*	*9 272*
British pound	*-15 210*	*-10 986*
Russian ruble	*-2 850*	*-5 140*
Other currencies	*-3 231*	*-4 716*

The swings in CTA reflect both the exchange rate evolution and the relative importance of the net assets denominated in the presented currencies.

Retained earnings in thousands of €	**Notes**	**2017**	**2018**
As at 1 January (as reported)		1 432 394	1 529 268
Restatement	2.8.	-	7 655
As at 1 January (restated)		1 432 394	1 536 923
Equity-settled share-based payments	6.12.	5 003	6 599
Result for the period attributable to equity holders of Bekaert		184 720	39 768
Dividends		-62 441	-62 153
Inflation adjustments		2 363	2 827
Treasury shares transactions	6.12.	-20 959	-5 475
Changes in Group structure		-11 812	-33 889
As at 31 December		**1 529 268**	**1 484 600**

Inflation adjustments reflect the use of inflation accounting in Venezuela, as required under IFRS in a hyperinflationary economy. Treasury shares transactions (€ -5.4 million vs € -21.0 million in 2017) represent the difference between the proceeds and the FIFO book value of the shares that were sold. Changes in Group structure in 2018 predominantly relate to the purchase of NCI in BBRG (€ -33.7 million), while in 2017 (€ -11.8 million) this mainly related to purchases of non-controlling interests (€ -18.2 million), disposal of non-controlling interests (€ +4.2 million) and business disposals (€ +2.4 million).

6.14. Non-controlling interests

Carrying amount in thousands of €	**2017**	**2018**
As at 1 January	130 801	95 381
Changes in Group structure	-2 800	66 715
Share of the result for the period	-2 220	-36 980
Share of other comprehensive income excluding CTA	4 236	1 766
Dividend pay-out	-27 949	-2 881
Equity-settled share-based payments	123	93
Capital increases	9 870	71
Exchange gains and losses (-)	-16 680	-5 094
As at 31 December	**95 381**	**119 071**

The changes in Group structure in 2018 almost exclusively relate to the purchase of virtually all non-controlling interests ('NCI') in the Bridon Bekaert Ropes Group ('BBRG'), the carrying amount of which amounted to € -66.7 million at the transaction date. The changes in 2017 mainly related to movements in NCI held by Chinese partners.

The share of the result for the period mainly declined due to the bigger negative contribution from BBRG, amplified by the lower contribution from nearly all other entities in which NCI are held.

In accordance with IFRS 12 'Disclosures of Interests in Other Entities', following information is provided on subsidiaries that have non-controlling interests that are material to the Group. The objective of IFRS 12 is to require an entity to disclose information that enables users of its financial statements to evaluate (a) the nature and risks associated with its interests in other entities, and (b) the effects of those interests on its financial position, financial performance and cash flows. Bekaert has many partnerships across the world, most entities of which would not individually meet any reasonable materiality criterion. Therefore, the Group has identified three non-wholly owned groups of entities which are interconnected through their line of business and shareholder structure: (1) the BBRG entities, a global business in which Bekaert has expanded its worldwide footprint since mid 2016 and acquired the remaining 40% non-controlling interests in October 2018; (2) the Wire entities in Chile and Peru, where the non-controlling interests are mainly held by the Chilean partners, and (3) the Wire entities in the Andina region, where the non-controlling interests are mainly held by the Ecuadorian Kohn family and ArcelorMittal. In presenting aggregated information for these entity groups, only intercompany effects within each entity group have been eliminated, while all other entities of the Group have been treated as third parties.

Entities included in material NCI disclosure	Country	Proportion of NCI at year-end 2017	2018
BBRG entities			
Acma Inversiones SA	Chile	40.0%	0.0%
BBRG (Purchaser) Ltd	United Kingdom	40.0%	0.0%
BBRG (Subsidiary) Ltd	United Kingdom	40.0%	0.0%
BBRG Finance (UK) Ltd	United Kingdom	40.0%	0.0%
BBRG Holding (UK) Ltd	United Kingdom	40.0%	0.0%
BBRG Operations (UK) Ltd	United Kingdom	40.0%	0.0%
BBRG Production (UK) Ltd	United Kingdom	40.0%	0.0%
BBRG - Macaé Cabos Ltda	Brazil	40.1%	0.0%
BBRG - Osasco Cabos Ltda	Brazil	40.0%	0.0%
Bekaert (Shenyang) Advanced Cords Co Ltd	China	40.0%	0.0%
Bekaert Advanced Cords Aalter NV	Belgium	40.0%	0.0%
Bekaert Wire Rope Industry NV	Belgium	40.0%	0.0%
Bekaert Wire Ropes Pty Ltd	Australia	40.0%	0.0%
Bridon (Hangzhou) Ropes Co Ltd	China	40.1%	0.0%
Bridon (South East Asia) Ltd	China	40.1%	0.0%
Bridon Coatbridge Ltd	United Kingdom	40.0%	0.0%
Bridon Holdings Ltd	United Kingdom	40.1%	0.0%
Bridon Hong Kong Ltd	China	40.1%	0.0%
Bridon International GmbH	Germany	40.0%	0.0%
Bridon International Ltd	United Kingdom	40.0%	0.0%
Bridon Ltd	United Kingdom	40.0%	0.0%
Bridon New Zealand Ltd	New Zealand	40.1%	0.0%
Bridon Ropes NV/SA	Belgium	40.1%	0.0%
Bridon Scheme Trustees Ltd	United Kingdom	40.0%	0.0%
Bridon Singapore Pte Ltd	Singapore	40.1%	0.0%
Bridon-American Corporation	United States	40.0%	0.0%
Bridon-Bekaert Ropes Group (UK) Ltd	United Kingdom	40.0%	0.0%
Bridon-Bekaert Ropes Group Ltd	United Kingdom	40.0%	0.0%
Bridon-Bekaert Scanrope AS	Norway	40.1%	0.0%
British Ropes Ltd	United Kingdom	40.0%	0.0%
Inversiones BBRG Lima SA	Peru	42.4%	3.9%
Procables SA	Peru	42.3%	3.9%
Procables Wire Ropes SA	Chile	40.0%	0.0%
Prodinsa SA	Chile	40.0%	0.0%
PT Bridon	Indonesia	40.1%	0.0%
Wire Rope Industries Ltd/Industries de Câbles d'Acier Ltée	Canada	40.0%	0.0%
Wire entities Chile and Peru			
Acma SA	Chile	48.0%	48.0%
Acmanet SA	Chile	48.0%	48.0%
Industrias Acmanet Ltda	Chile	48.0%	48.0%
Industrias Chilenas de Alambre - Inchalam SA	Chile	48.0%	48.0%
Inversiones Impala Perú SA Cerrada	Peru	48.0%	48.0%
Procercos SA	Chile	48.0%	48.0%
Prodalam SA	Chile	48.0%	48.0%
Prodac Contrata SAC	Peru	62.5%	62.5%
Prodac Selva SAC	Peru	62.5%	62.5%
Productos de Acero Cassadó SA	Peru	62.5%	62.5%
Wire entities Andina region			
Bekaert Ideal SL	Spain	20.0%	20.0%
Bekaert Costa Rica SA	Costa Rica	41.6%	41.6%
Bekaert Trade Latin America NV	Antilles	41.6%	0.0%
BIA Alambres Costa Rica SA	Costa Rica	41.6%	41.6%
Ideal Alambrec SA	Ecuador	41.6%	41.6%
InverVicson SA	Venezuela	20.0%	20.0%
Productora de Alambres Colombianos Proalco SAS	Colombia	20.0%	20.0%
Vicson SA	Venezuela	20.0%	20.0%

The principal activity of the main entities listed above is manufacturing and selling wire, ropes and other wire products, mainly for the local market. Following entities are essentially holdings, having interests in one or more of the other entities listed above: Acma Inversiones SA, Procables Wire Ropes SA, Bekaert Wire Rope Industry NV, BBRG (Purchaser) Ltd, BBRG (Subsidiary) Ltd, BBRG Finance (UK) Ltd, BBRG Holding (UK) Ltd, BBRG Operations (UK) Ltd, BBRG Production (UK) Ltd, Bridon Holdings Ltd, Bridon-Bekaert Ropes Group (UK) Ltd, Bridon-Bekaert Ropes Group Ltd, Industrias Acmanet Ltda, Procercos SA, Inversiones Impala Perú SA Cerrada and Bekaert Ideal SL. The following table shows the relative importance of the entity groups with material NCI in terms of results and equity attributable to NCI.

Material and other NCI	**Result attributable to NCI**		**Equity attributable to NCI**	
in thousands of €	**2017**	**2018**	**2017**	**2018**
BBRG entities	-21 482	-39 058	-18 275	270
Wire entities Chile and Peru	7 692	6 006	71 877	75 481
Wire entities Andina region	4 388	-1 577	16 878	16 356
Consolidation adjustments on material NCI	-15	1 895	-37 854	-28 552
Contribution of material NCI to consolidated NCI	-9 417	-32 734	32 626	63 555
Other NCI	7 197	-4 246	62 755	55 516
Total consolidated NCI	-2 220	-36 980	95 381	119 071

The substantial consolidation adjustments to the equity attributable to material NCI are largely due to the wire entities in Chile and Peru.

The following tables show concise basic statements of the non-wholly owned groups of entities.

BBRG entities in thousands of €	**2017**	**2018**
Current assets	254 193	257 289
Non-current assets	360 631	337 623
Current liabilities	161 658	149 563
Non-current liabilities	498 561	565 103
Equity attributable to equity holders of Bekaert	**-27 120**	**-120 024**
Equity attributable to NCI	**-18 275**	**270**

Shortly after the acquisition of all interests held by Ontario Teachers' Pension Plan (OTPP) in BBRG, Bekaert completed the refinancing of the outstanding financial debt incurred by BBRG, including:

(1) the temporary refinancing through a financial covenant-free bridge loan with a group of banks for a maximum maturity of two years, preceding a permanent long-term funding decision;
(2) the repayment of € 294 million to the BBRG lenders' syndicate;
(3) the release of all related security interests;
(4) the elimination of the related ring-fenced debt structure; and
(5) significantly lower interest charges on the refinanced BBRG debt.

BBRG entities in thousands of €	**2017**	**2018**
Sales	457 531	465 933
Expenses	-511 327	-582 350
Result for the period	-53 796	-116 417
Result for the period attributable to equity holders of Bekaert	-32 314	-77 359
Result for the period attributable to NCI	-21 482	-39 058
Other comprehensive income for the period	-2 456	-11 064
OCI attributable to equity holders of Bekaert	-1 460	-9 185
OCI attributable to NCI	-996	-1 879
Total comprehensive income for the period	-56 252	-127 481
Total comprehensive income attributable to equity holders of Bekaert	-33 774	-86 544
Total comprehensive income attributable to NCI	-22 478	-40 937
Net cash inflow (outflow) from operating activities	24 767	10 485
Net cash inflow (outflow) from investing activities	-10 176	-19 230
Net cash inflow (outflow) from financing activities	-29 410	11 735
Net cash inflow (outflow)	-14 819	2 990

The 2018 result for the period of the BBRG entities was impacted by on the one hand one-time non-cash transactions, mainly related to inventory write-downs for slow moving and obsolescence (recorded in Underlying EBIT), and on the other hand restructuring expenses. Moreover a contractual extension service fee related to the intra-group financing taken out by BBRG as well as significant accounting losses were incurred as part of the refinancing operation of the Senior Facilities Agreement. The investing cash flows in 2018 essentially reflected a higher investment program in PP&E. The 2018 financing cash inflows mainly originate from taking on additional debt through the refinancing operation, partially offset by costs to service the debt.

Wire entities Chile and Peru in thousands of €	**2017**	**2018**
Current assets	202 072	238 595
Non-current assets	142 277	139 880
Current liabilities	152 059	197 941
Non-current liabilities	55 447	37 067
Equity attributable to equity holders of Bekaert	**64 966**	**67 986**
Equity attributable to NCI	**71 877**	**75 481**

Wire entities Chile and Peru in thousands of €	**2017**	**2018**
Sales	451 644	498 007
Expenses	-436 429	-485 760
Result for the period	15 215	12 246
Result for the period attributable to equity holders of Bekaert	7 524	6 241
Result for the period attributable to NCI	7 692	6 006
Other comprehensive income for the period	-11 380	-5 623
OCI attributable to equity holders of Bekaert	-5 068	-3 242
OCI attributable to NCI	-6 312	-2 381
Total comprehensive income for the period	3 835	6 623
Total comprehensive income attributable to equity holders of Bekaert	2 456	2 999
Total comprehensive income attributable to NCI	1 380	3 625
Dividends paid to NCI	-15 676	-
Net cash inflow (outflow) from operating activities	12 290	13 377
Net cash inflow (outflow) from investing activities	-18 763	-13 379
Net cash inflow (outflow) from financing activities	-5 143	7 841
Net cash inflow (outflow)	-11 616	7 839

The changes in balance sheet composition mainly followed the increase in inventories on the one hand and trade payables on the other hand, both impacted by price increases of raw materials.
Sales increased in Chile, but remained rather constant in Peru, resulting in higher operating results. Unfavourable FX impacts, as well as higher tax expenses caused the result of the period to be lower than the year before. Other comprehensive income mainly includes losses from exchange differences due to the weakened Chilean peso and US dollar (the functional currency of the entities in Peru).

Wire entities Andina region in thousands of €	**2017**	**2018**
Current assets	88 692	102 723
Non-current assets	57 456	46 172
Current liabilities	84 790	93 608
Non-current liabilities	19 639	15 769
Equity attributable to equity holders of Bekaert	**24 841**	**23 162**
Equity attributable to NCI	**16 878**	**16 356**

Current items, both at the assets side (trade receivables and cash) as at the liability side (trade payables and credit institutions), were higher without a material net effect on equity.

Wire entities Andina region in thousands of €	**2017**	**2018**
Sales	187 585	203 928
Expenses	-178 590	-208 517
Result for the period	8 996	-4 589
Result for the period attributable to equity holders of Bekaert	4 608	-3 012
Result for the period attributable to NCI	4 388	-1 577
Other comprehensive income for the period	-7 774	2 398
OCI attributable to equity holders of Bekaert	-4 880	1 381
OCI attributable to NCI	-2 894	1 016
Total comprehensive income for the period	1 222	-2 191
Total comprehensive income attributable to equity holders of Bekaert	-272	-1 631
Total comprehensive income attributable to NCI	1 494	-561
Dividends paid to NCI	-2 258	-606
Net cash inflow (outflow) from operating activities	6 446	-4 957
Net cash inflow (outflow) from investing activities	-3 020	800
Net cash inflow (outflow) from financing activities	-5 022	11 131
Net cash inflow (outflow)	-1 596	6 974

The Result of the period in 2017 included the one-time positive impact of the elimination of the provision related to a wire rod supply contract (€ 10.4 million), while the results in 2018 were impacted by the one-off expenses related to the closure of the Dramix plant in Costa Rica.

Vicson SA (Venezuela) remains exposed to restrictions on the repatriation of cash due to foreign exchange regulations in Venezuela, although these restrictions were recently softened by the authorities. Cash & cash equivalents and short-term deposits amounted to € 2.0 million at 31 December 2018 (vs € 2.0 million at 31 December 2017). See also note 6.9. 'Cash & cash equivalents and short-term deposits'.

6.15. Employee benefit obligations

The total net liabilities for employee benefit obligations, which amounted to € 248.5 million as at 31 December 2018 (€ 268.1 million as at year-end 2017), are as follows:

in thousands of €	2017	2018
Liabilities for		
Post-employment defined-benefit plans	*144 312*	*136 080*
Other long-term employee benefits	*5 966*	*4 535*
Cash-settled share-based payment employee benefits	*2 702*	*877*
Short-term employee benefits	*120 341*	*112 112*
Termination benefits	*7 693*	*6 374*
Total liabilities in the balance sheet	**281 015**	**259 977**
of which		
Non-current liabilities	*150 810*	*141 550*
Current liabilities	*130 204*	*118 427*
Assets for		
Defined-benefit pension plans	-12 915	-11 428
Total assets in the balance sheet	**-12 915**	**-11 428**
Total net liabilities	**268 100**	**248 549**

Post-employment benefit plans

In accordance with IAS 19, ‘Employee benefits’, plans are classified as either defined-contribution plans or defined-benefit plans.

Defined-contribution plans

For defined-contribution plans, Bekaert pays contributions to publicly or privately administered pension funds or insurance companies. Once the contributions have been paid, the Group has no further payment obligation. These contributions constitute an expense for the year in which they are due.

The Belgian defined-contribution pension plans are by law subject to minimum guaranteed rates of return. Pension legislation defines the minimum guaranteed rate of return as a variable percentage linked to government bond yields observed in the market as from 1 January 2016 onwards. As of 2016 the minimum guaranteed rate of return became 1.75% on both employer contributions and employee contributions. The old rates (3.25% on employer contributions and 3.75% on employee contributions) continue to apply to the accumulated past contributions in the group insurance as at 31 December 2015. As a consequence, the defined-contribution plans are reported as defined benefit obligations at year end, whereby an actuarial valuation was performed.

Bekaert participates in a multi employer defined benefit plan in the Netherlands funded through the Pensioenfonds Metaal & Techniek (‘PMT’). This plan is treated as a defined contribution plan because no information is available with respect to the plan assets attributable to Bekaert. Contributions for the plan amounted to € 1.8 million (2017: € 1.4 million). Employer contributions are set every five years by PMT, they are equal for all participating companies and are expressed as a percentage of pensionable salary. Bekaert’s total contribution represents less than 0.1% of the overall PMT contribution. The financing rules specify that an employer is not obliged to pay any further contributions in respect of previously accrued benefits. The funded status of PMT was 102.3% at 31 December 2018 (2017: 100.6%). During the five year period 2015 to 2019 there is no obligation for participating companies to fund any deficit of PMT (nor to receive any surplus). After 2019, PMT has some flexibility to set the employer contribution above the required minimum should it wish to improve its funded status.

Defined-contribution plans

in thousands of €	2017	2018
Expenses recognized	13 894	15 149

Defined-benefit plans

Several Bekaert companies operate retirement benefit and other post-employment benefit plans. These plans generally cover all employees and provide benefits which are related to salary and length of service.

The latest actuarial valuations under IAS 19 were carried out as of 31 December 2018 for all significant post-employment defined-benefit plans by independent actuaries. The Group's largest defined-benefit obligations are in Belgium, the United States and the United Kingdom. They account for 87.3% (2017: 86.4%) of the Group's defined-benefit obligations and 99.5% (2017: 99.7%) of the Group's plan assets.

Plans in Belgium

The funded plans in Belgium mainly relate to retirement plans representing a defined-benefit obligation of € 198.4 million (2017: € 185.1 million) and € 176.6 million assets (2017: € 172.1 million). This is including the defined-contribution plans funded through a group insurance.

The traditional defined-benefit plans foresee in a lump sum payment upon retirement and in risk benefits in case of death or disability prior to retirement. The plans are externally funded through two self-administrated institutions for occupational retirement provision (IORP). On a regular basis, an Asset Liability Matching (ALM) study is performed in which the consequences of strategic investment policies are analyzed in terms of risk-and-return profiles. Statement of investment principles and funding policy are derived from this study. The purpose is to have a well-diversified asset allocation to control the risk. Investment risk and liability risk are monitored on a quarterly basis. Funding policy targets to be at least fully funded in terms of the technical provision (this is a prudent estimate of the pension liabilities).

Other plans mainly relate to pre-retirement pensions (defined-benefit obligation € 11.2 million (2017: € 19.8 million)) which are not externally funded. An amount of € 4.6 million (2017: € 9.6 million) relates to employees in active service who have not yet entered into any pre-retirement agreement.

Plans in the United States

The funded plans in the United States mainly relate to pension plans representing a defined-benefit obligation of € 116.2 million (2017: € 122.2 million) and assets of € 81.0 million (2017: € 85.9 million). The plans provide for benefits for the life of the plan members but have been closed for new entrants. Plan assets are invested, in fixed-income funds and in equities. Based on an ALM study the strategic asset allocation has been shifted more towards long duration fixed income funds. Funding policy targets to be sufficiently funded in terms of Pension Protection Act requirements and thus to avoid benefit restrictions or at-risk status of the plans.

Unfunded plans include medical care plans (defined-benefit obligation € 3.9 million (2017: € 4.7 million)).

Plans in the United Kingdom

The funded plan in the United Kingdom relates to a pension scheme closed for new entrants and further accrual representing a defined-benefit obligation of € 79.7 million (2017: 86.1) and assets of € 91.2 million (2017: 99.0 million). The scheme is administrated by a separate board of Trustees which is legally separate from the company. The Trustees are composed of representatives of both employer and employees. The Trustees are required by law to act in the interest of all relevant beneficiaries and are responsible for the investment policy with regard to the assets plus the day to day administration of the benefits. On 26 October 2018, the High Court handed down its judgement relating to equalization of member benefits for the gender effects of Guaranteed Minimum Pension (GMP). The estimated impact on the scheme's liabilities is € 1.7 million. This additional liability has been recognized as a past service cost in the 2018 income statement.

The defined benefit obligation solely includes benefits for deferred pensioners and current pensioners. Broadly, about 80% of the liabilities are attributable to non-pensioners and 20% to current pensioners (2017: 20% pensioners).

UK legislation requires that pension schemes are funded prudently. The funding valuation of the scheme carried out as at 31 December 2016 by a qualified actuary showed a deficit of € 6.5 million. The company entered into a funding agreement in order to make good this shortfall. As part of the funding agreement the company did not make any funding contributions during 2018, but will start making payments of € 0.8 million p.a. over the period 1 January 2019 to 31 August 2021. The above contributions are excluding administration costs which are reported separately from IAS 19.

The amounts recognized in the balance sheet are as follows:

in thousands of €	2017	2018
Belgium		
Present value of funded obligations	185 156	198 425
Fair value of plan assets	-172 087	-176 557
Deficit / surplus (-) of funded obligations	**13 069**	**21 868**
Present value of unfunded obligations	19 819	11 176
Total deficit / surplus (-) of obligations	**32 888**	**33 044**
United States		
Present value of funded obligations	122 177	116 221
Fair value of plan assets	-85 953	-81 043
Deficit / surplus (-) of funded obligations	**36 224**	**35 178**
Present value of unfunded obligations	9 706	8 831
Total deficit / surplus (-) of obligations	**45 930**	**44 009**
United Kingdom		
Present value of funded obligations	86 125	79 749
Fair value of plan assets	-99 027	-91 167
Deficit / surplus (-) of funded obligations	**-12 902**	**-11 418**
Present value of unfunded obligations	-	-
Total deficit / surplus (-) of obligations	**-12 902**	**-11 418**
Other		
Present value of funded obligations	1 227	1 346
Fair value of plan assets	-947	-1 582
Deficit / surplus (-) of funded obligations	**280**	**-236**
Present value of unfunded obligations	65 200	59 253
Total deficit / surplus (-) of obligations	**65 480**	**59 017**
Total		
Present value of funded obligations	394 685	395 741
Fair value of plan assets	-358 014	-350 350
Deficit / surplus (-) of funded obligations	**36 671**	**45 391**
Present value of unfunded obligations	94 725	79 260
Total deficit / surplus (-) of obligations	**131 396**	**124 651**

The movement in the defined-benefit obligation, plan assets, net liability and asset over the year is as follows:

in thousands of €	Defined-benefit obligation	Plan assets	Amount not recognized as an asset	Net liability / asset (-)
As at 1 January 2017	**537 263**	**-365 093**		**172 170**
Current service cost	18 648	-		18 648
Past service cost	-6 151	-		-6 151
Gains (-) / losses from settlements	-12 526	12 434		-92
Interest expense / income (-)	13 187	-8 802		4 385
Net benefit expense / income (-) recognized in profit and loss	**13 158**	**3 632**	**-**	**16 789**
Components recognized in EBIT				*12 405*
Components recognized in financial result				*4 385*
Remeasurements				
Return on plan assets, excluding amounts included in interest expense / income (-)	*-*	*-12 633*		*-12 633*
Gain (-) / loss from change in demographic assumptions	*-3 750*	*-*		*-3 750*
Gain (-) / loss from change in financial assumptions	*1 684*	*-*		*1 684*
Experience gains (-) / losses	*-424*	*-*		*-424*
Changes recognized in equity	**-2 490**	**-12 633**	**-**	**-15 123**
Contributions				
Employer contributions / direct benefit payments	-	-31 633		-31 633
Employee contributions	173	-173		-
Payments from plans				
Benefit payments	-32 418	32 418		-
Reclassifications	**143**	**-**	**-**	**143**
Foreign-currency translation effect	**-26 420**	**15 469**	**-**	**-10 951**
As at 31 December 2017	**489 409**	**-358 013**	**-**	**131 396**
As at 1 January 2018	**489 409**	**-358 013**		**131 396**
Current service cost	17 219	-		17 219
Past service cost	-4 103	-		-4 103
Gains (-) / losses from settlements	-755	685		-71
Interest expense / income (-)	11 982	-8 393		3 588
Net benefit expense / income (-) recognized in profit and loss	**24 342**	**-7 709**	**-**	**16 634**
Components recognized in EBIT				*13 045*
Components recognized in financial result				*3 588*
Remeasurements				
Return on plan assets, excluding amounts included in interest expense / income (-)	*-*	*18 467*		*18 467*
Gain (-) / loss from change in demographic assumptions	*-4 631*	*-*		*-4 631*
Gain (-) / loss from change in financial assumptions	*-19 093*	*-*		*-19 093*
Experience gains (-) / losses	*6 644*	*-*		*6 644*
Changes recognized in equity	**-17 080**	**18 467**		**1 387**
Contributions				
Employer contributions / direct benefit payments	-	-25 637		-25 637
Employee contributions	127	-127		-
Payments from plans				
Benefit payments	-25 712	25 712		**-**
Disposals	**-549**	**-**		**-549**
Foreign-currency translation effect	**4 473**	**-3 042**	**-**	**1 431**
As at 31 December 2018	**475 011**	**-350 350**	**-**	**124 661**

The past service cost mainly relates to a terminated plan in Ecuador, legislative changes for bridge pension in Belgium and GMP equalization in UK. In the income statement, current and past service cost, including gains or losses from settlements are included in the operating result (EBIT), and interest expense or income is included in interest expense, under interest element of interest-bearing provisions.

Reimbursement rights arising from reinsurance contracts covering retirement pensions, death and disability benefits in Germany amount to € 0.2 million (2017: € 0.2 million).

Estimated contributions and direct benefit payments for 2019 are as follows:

Estimated contributions and direct benefit payments in thousands of €	**2019**
Pension plans	25 698
Total	**25 698**

Fair values of plan assets at 31 December were as follows:

in thousands of €	**2017**	**2018**
Belgium		
Bonds	**42 706**	**42 925**
Equity	**64 313**	**60 638**
Cash	**6 038**	**9 906**
Insurance contracts	**59 031**	**63 088**
Total Belgium	**172 088**	**176 557**
United States		
Bonds		
USD Long Duration Bonds	46 035	30 559
USD Fixed Income	12 447	8 296
Equity		
USD Equity	19 307	28 714
Non-USD Equity	8 164	13 474
Total United States	**85 953**	**81 043**
United Kingdom		
Bonds	**20 363**	**1 092**
Derivatives	**44 925**	**59 782**
Equity	**33 145**	**27 107**
Cash	**594**	**3 186**
Total United Kingdom	**99 027**	**91 167**
Other		
Bonds	**946**	**1 583**
Total Other	**946**	**1 583**
Total	**358 014**	**350 350**

In the USA, investments are primarily made through mutual fund investments and insurance company separate accounts, in quoted equity and debt instruments. In Belgium, the investments are made through mutual fund investments in quoted equity and debt instruments. Investments are well-diversified so that the failure of any single investment would not have a material impact on the overall level of assets. In UK, investments are primarily made in Liability Driven Investments. The Group's plan assets include no direct positions in Bekaert shares or bonds, nor do they include any property used by a Bekaert entity.

The principal actuarial assumptions on the balance sheet date (weighted averages based on outstanding DBO) were:

Actuarial assumptions	2017	2018
Discount rate	2.5%	2.8%
Future salary increases	3.0%	3.2%
Underlying inflation rate	1.5%	2.2%
Health care cost increases (initial)	7.0%	6.8%
Health care cost increases (ultimate)	4.7%	4.7%
Health care (years to ultimate rate)	9	8

The discount rate for the UK, USA and Belgium is reflective both of the current interest rate environment and the plan's distinct liability characteristics. The plan's projected cash flows are matched to spot rates, after which an associated present value is developed. A single equivalent discount rate is then determined that produces that same present value. The underlying yield curve for deriving spot rates is based on high quality AA-credit rated corporate bonds issues denominated in the currency of the applicable regional market.

This resulted into the following discount rates:

Discount rates	2017	2018
Belgium	1.6%	1.7%
United States	3.5%	4.2%
United Kingdom	2.7%	2.9%
Other	3.2%	3.8%

Assumptions regarding future mortality are based on actuarial advice in accordance with published statistics and experience in each territory. These assumptions translate into the following average life expectancy in years for a pensioner retiring at age 65.

	2017	2018
Life expectancy of a man aged 65 (years) at balance sheet date	20.4	20.4
Life expectancy of a woman aged 65 (years) at balance sheet date	23.0	22.9
Life expectancy of a man aged 65 (years) ten years after balance sheet date	21.2	21.2
Life expectancy of a woman aged 65 (years) ten years after balance sheet date	23.9	23.7

Sensitivity analyses show the following effects:

Sensitivity analysis in thousands of €	Change in assumption	Impact on defined-benefit obligation		
Discount rate	-0.50%	Increase by	29 567	6.2%
Salary growth rate	0.50%	Increase by	10 763	2.3%
Health care cost	0.50%	Increase by	165	0.03%
Life expectancy	1 year	Increase by	6 139	1.3%

The above analyses were done on a mutually exclusive basis, while holding all other assumptions constant.

Through its defined-benefit plans, the Group is exposed to a number of risks, the most significant of which are detailed below:

Asset volatility	The plan liabilities are calculated using a discount rate set with reference to corporate bond yields; if plan assets underperform this yield, this will create a deficit.
Changes in bond yields	A decrease in corporate bond yields will increase plan liabilities, although this will be partially offset by an increase in the value of the plans' bond holdings.
Salary risk	The majority of the plans' benefit obligations are calculated by reference to the future salaries of plan members. As such, a salary increase of plan members higher than expected will lead to higher liabilities.
Longevity risk	Belgian pension plans provide for lump sum payments upon retirement. As such, there is limited or no longevity risk. Pension plans in the US and UK provide for benefits for the life of the plan members, so increases in life expectancy will result in an increase in the plans' liabilities.

The weighted average durations of the defined-benefit obligations are as follows:

Weighted average durations of the DBO in years	**2017**	**2018**
Belgium	13.6	14.6
United States	12.4	11.6
United Kingdom	22.9	23.0
Other	10.8	9.3
Total	**14.5**	**14.6**

Other long-term employee benefits

The other long-term employee benefits relate to service awards.

Cash-settled share-based payment employee benefits

Stock appreciation rights ('SAR')

The Group issues stock appreciation rights (SARs) for certain management employees, granting them the right to receive the intrinsic value of the SARs at the date of exercise. These SARs are accounted for as cash-settled share-based payments in accordance with IFRS 2. The fair value of each grant is recalculated at balance sheet date, using the same binomial pricing model as for the equity-settled share-based payments (see note 6.12. 'Ordinary shares, treasury shares and equity-settled share-based payments'). Based on local regulations, the exercise price for any grant under the USA SAR plan is equal to the average closing price of the Company's share during the thirty days following the date of the offer. The exercise price for the other SAR plans is determined in the same way as for the equity-settled stock option plans: it is equal to the lower of (i) the average closing price of the Company's share during the thirty days preceding the date of the offer, and (ii) the last closing price preceding the date of the offer.

Following inputs to the model are used for all grants: share price at balance sheet date: € 21.06 (2017: € 36.45), expected volatility of 36% (2017: 39%), expected dividend yield of 3.0% (2017: 3.0%), vesting period of 3 years, contractual life of 10 years, no employee exit rate (2017: 4% in Asia and 3% in other countries), and no exercise factor (2017: 1.40). Inputs for risk-free interest rates vary by grant and are based on the return of Belgian OLO's (Obligation Linéaire / Lineaire Obligatie) with a term equal to the maturity of the SAR grant under consideration.

Exercise prices and fair values of outstanding SARs by grant are shown below:

USA SAR Plan details by grant in €	**Exercise price**	**Fair value as at 31 Dec 2017**	**Fair value as at 31 Dec 2018**
Grant 2011	83.43	1.22	0.01
Grant 2012	27.63	10.66	2.36
Grant 2013	22.09	14.55	3.92
Exceptional grant 2013	22.51	14.26	4.13
Grant 2014	25.66	11.90	3.43
Grant 2015	25.45	12.11	3.76
Grant 2016	28.38	11.74	3.53
Grant 2017	38.86	9.01	2.64
Grant 2018	37.06	9.77	3.07

Other SAR Plans details by grant in €	**Exercise price**	**Fair value as at 31 Dec 2017**	**Fair value as at 31 Dec 2018**
Grant 2009	16.66	18.73	-
Grant 2010	33.99	7.03	0.29
Grant 2011	77.00	1.49	0.02
Grant 2012	25.14	12.15	2.86
Grant 2013	19.20	17.27	4.71
Exceptional grant 2013	21.45	15.14	4.31
Grant 2014	25.38	12.12	3.52
Grant 2015	26.06	11.77	3.69
Grant 2016	26.38	12.45	3.82
Grant 2017	39.43	8.64	2.58
Grant 2018	34.60	9.99	3.32

At 31 December 2018, the total liability for the USA SAR plan amounted to € 0.2 million (2017: € 0.7 million), while the total liability for the other SAR plans amounted to € 0.4 million (2017: € 1.5 million).

The Group recorded a total income of € 1.6 million (2017: income of € 1.1 million) during the year in respect of SARs.

Performance Share Units ('PSU')

Certain management employees received cash-settled Performance Share Units (PSUs) during 2015, 2016 and 2017 entitling the beneficiary to receive the value of Performance Share Units subject to the conditions of the Performance Share Plan 2015-2017. These Performance Share Units will vest following a vesting period of three years, conditional to the achievement of a pre-set performance target. The performance target was set by the Board of Directors, in line with the Company strategy.

These Performance Share Units are accounted for as cash-settled share-based payments in accordance with IFRS 2. The fair value of each grant is recalculated at balance sheet date, using the same binomial pricing model as for the equity-settled share-based payments (see note 6.12. 'Ordinary shares, treasury shares and equity-settled share-based payments').

Following inputs to the model are used for all grants: share price at balance sheet date: € 21.06 (2017: € 36.45), expected volatility of 36% (2017: 39%), expected dividend yield of 3.0% (2017: 3.0%), vesting period of 3 years. Inputs for risk-free interest rates vary by grant and are based on the return of Belgian OLO's with a term equal to the maturity of the PSU grant under consideration.

The fair value of outstanding Performance Share Units by grant is shown below:

Performance Share Units details by grant in €	**Fair value as at 31 Dec 2017**	**Fair value as at 31 Dec 2018**
Grant 2015	71.18	-
Grant 2016	39.40	0.89
Grant 2017	44.45	5.28

At 31 December 2018, the total liability for the USA PSUs amounted to nearly nil (2017: € 0.3 million), while the total liability for the other PSUs amounted to nearly nil (2017: € 0.5 million).

The Group recorded a total income of € 0.7 million (2017: expense of € 0.5 million) during the year in respect of PSUs.

In 2019 an offer of 51 995 cash settled performance share units was made under the terms of the PSU 2018-2020 Performance Share Plan. See note 7.6. 'Events after the balance sheet date'.

Short-term employee benefit obligations

Short-term employee benefit obligations relate to liabilities for remuneration and social security that are due within twelve months after the end of the period in which the employees render the related service.

6.16. Provisions

in thousands of €	Restructuring	Claims	Environment	Other	Total
As at 1 January 2018	**2 395**	**7 379**	**29 591**	**15 890**	**55 255**
Additional provisions	15 343	5 353	8 483	738	29 917
Unutilized amounts released	-254	-3 777	-4 248	-2 429	-10 708
Increase in present value	-	-	-	562	562
Charged to the income statement	**15 089**	**1 576**	**4 235**	**-1 129**	**19 771**
Deconsolidations	-	-589	-	-	-589
Amounts utilized during the year	-1 502	-1 551	-494	-4 478	-8 025
Transfers	222	-	-	-222	-
Exchange gains (-) and losses	1	-23	-42	-124	-188
As at 31 December 2018	**16 205**	**6 792**	**33 290**	**9 937**	**66 224**
Of which					
current	*16 146*	*5 331*	*14 628*	*1 089*	*37 194*
non-current - between 1 and 5 years	*59*	*1 138*	*2 423*	*6 520*	*10 140*
non-current - more than 5 years	*-*	*323*	*16 239*	*2 328*	*18 890*

The increase of the restructuring programs mainly relates to the closure of the rubber reinforcement plant in Figline (Italy).

Provisions for claims mainly relate to product warranty programs and various product quality claims in several entities. Deconsolidations are due to the disposal of the drying activities.

The environmental provisions mainly relate to sites in EMEA. The expected soil sanitation costs are reviewed at each balance sheet date, based on external expert assessments. Timing of settlement is uncertain as it is often triggered by decisions on the destination of the premises.

The decrease of other provisions mainly relates to the phasing out of the internal reinsurance of insurance programs and a reduction of a property lease provision.

6.17. Interest-bearing debt

An analysis of the carrying amount of the Group's interest-bearing debt by contractual maturity is presented below:

2018 in thousands of €	**Due within 1 year**	**Due between 1 and 5 years**	**Due after 5 years**	**Total**
Interest-bearing debt				
Finance leases	*810*	*1 854*	*-*	*2 664*
Credit institutions	*746 231*	*159 449*	*125 727*	*1 031 407*
Bonds	*195 000*	*45 614*	*-*	*240 614*
Convertible bonds	*-*	*354 021*	*-*	*354 021*
Total financial debt	**942 041**	**560 938**	**125 727**	**1 628 705**

2017 **in thousands of €**	**Due within 1 year**	**Due between 1 and 5 years**	**Due after 5 years**	**Total**
Interest-bearing debt				
Finance leases	*582*	*2 564*	*-*	*3 146*
Credit institutions	*353 819*	*423 699*	*172 106*	*949 624*
Bonds	*100 000*	*240 614*	*-*	*340 614*
Convertible bonds	*-*	*341 364*	*-*	*341 364*
Total financial debt	**454 401**	**1 008 241**	**172 106**	**1 634 748**

An analysis of the undiscounted outflows relating to the Group's financial liabilities by contractual maturity is presented in note 7.3. 'Financial risk management and financial derivatives'. The financial debt due within one year more than doubled as a result of the refinancing of the BBRG long term debt and the matured Eurobond with a temporary refinancing through a financial covenant-free bridge loan (€ 410 million) with a group of banks for a maximum maturity of two years, preceding a permanent long-term funding decision.

As a general principle, loans are entered into by Group companies in their local currency to avoid currency risk. If funding is in another currency without an offsetting position on the balance sheet, the companies hedge the currency risk through derivatives (cross-currency interest-rate swaps or forward exchange contracts). Bonds, commercial paper and debt towards credit institutions are unsecured, except for the factoring program that has been set up with KBC and BNP Paribas Fortis at 31 December 2017. In 2018, the factoring program has been changed into an off-balance factoring program without recourse and as a result factored receivables give rise to a decrease in financial debt.

For further information on financial risk management, we refer to note 7.3. 'Financial risk management and financial derivatives'.

Net debt calculation

The derivative representing the conversion option (€ 0.2 million vs € 17.6 million in 2017) embedded in the convertible bond is not included in the net debt (see note 6.18. 'Other non-current liabilities'). The table below summarizes the calculation of the net debt.

in thousands of €	**2017**	**2018**
Non-current interest-bearing debt	1 180 347	686 665
Current interest-bearing debt	454 401	942 041
Total financial debt	**1 634 748**	**1 628 705**
Non-current financial receivables and cash guarantees	-6 259	-7 332
Current loans	-8 447	-20 186
Short-term deposits	-50 406	-50 036
Cash and cash equivalents	-418 779	-398 273
Net debt	**1 150 857**	**1 152 878**

Changes in liabilities arising from financing activities

In accordance with the disclosure requirements of IAS 7 'Statement of Cash Flows', this section presents an overview of the changes in liabilities arising from financing activities. The qualification as long-term vs short-term debt is based on the initial maturity of the debt. In the consolidated cash flow statement, the cash flows from long-term interest-bearing debt are analyzed between proceeds and repayments. Acquisitions and disposals in 2017 relate to the disposal of the majority stake in the rubber reinforcement plant in Sumaré (Brazil). In 2018, other changes in financial debt mainly relate to the conversion of the shareholders' loan into capital for € -52.6 million (see note 6.14. 'Non-controlling interest'), interest accruals from amortizations on liabilities using the effective interest method, and the effect of the changed accounting for a modification or exchange of debt under IFRS 9 (€ 2.6 million). Derivatives held to hedge financial debt include swaps and options that provide (economic) hedges for interest-rate risk, see note 7.3. 'Financial risk management and financial derivatives'. Other changes in 2017 relate to interest accruals from amortizations on liabilities using the effective interest method, and reclassifications.

			Non-cash changes				
in thousands of €	**As at 1 January 2017**	**Cash flows**	**Acquisitions & disposals**	**Cumulative translation adjust-ments**	**Fair value changes**	**Other changes**	**As at 31 December 2017**
Financial debt							
Long-term interest-bearing debt	1 179 663	149 445	406	-19 926	-	23 039	1 332 628 [1]
Finance leases	*3 855*	*-629*	*-*	*-334*	*-*	*254*	*3 146*
Credit institutions	*502 353*	*150 075*	*406*	*-19 592*	*-*	*14 262*	*647 503*
Bonds	*342 504*	*-*	*-*	*-*	*-*	*-1 890*	*340 614*
Convertible bonds	*330 951*	*-*	*-*	*-*	*-*	*10 413*	*341 364*
Short-term interest bearing debt	279 562	69 629	2	-29 874	-	-17 199	302 121
Total financial debt	**1 459 225**	**219 074**	**408**	**-49 800**	**-**	**5 840**	**1 634 748**
Derivatives held to hedge financial debt							
Interest-rate swaps	436	-	-	-	4	-	440
Cross-currency interest-rate swaps	5 702	15	-	-20	-10 602	-	-4 905
Interest-rate options	19	-	-	-	5	-	24
Other liabilities from financing activities							
Put options of NCI	8 846	-	-	-	287	-	9 133
Conversion derivative	35 207	-	-	-	-17 662	-	17 545
Total liabilities from financing activities	**1 509 435**	**219 090**	**408**	**-49 820**	**-27 967**	**5 840**	**1 656 986**

[1] *Including the current portion of non-current interest-bearing debt of € 18.4 million as at 1 January and € 152.3 million as at 31 December.*

in thousands of €	As at 1 January 2018	Cash flows	Non-cash changes: Acquisitions & disposals	Non-cash changes: Cumulative translation adjust-ments	Non-cash changes: Fair value changes	Non-cash changes: Other changes	As at 31 December 2018
Financial debt							
Long-term interest-bearing debt	1 332 628	59 576	-	-407	-	-19 037	1 372 759 [1]
Finance leases	*3 146*	*-683*	-	*-75*	-	*275*	*2 664*
Credit institutions	*647 503*	*160 259*	-	*-332*	-	*-31 969*	*775 461*
Bonds	*340 614*	*-100 000*	-	-	-	-	*240 614*
Convertible bonds	*341 364*	-	-	-	-	*12 656*	*354 021*
Short-term interest bearing debt	302 121	-62 590	-32	16 448	-	-	255 946
Total financial debt	**1 634 748**	**-3 014**	**-32**	**16 041**	**-**	**-19 037**	**1 628 705**
Derivatives held to hedge financial debt							
Interest-rate swaps	440	-	-	-	-440	-	-
Cross-currency interest-rate swaps	-4 905	-	-	-32	5 459	-	522
Interest-rate options	24	-	-	-	-24	-	-
Other liabilities from financing activities							
Put options of NCI	9 133	-	-	-	1 900	-	11 033
Conversion derivative	17 545	-	-	-	-17 325	-	220
Total liabilities from financing activities	**1 656 986**	**-3 014**	**-32**	**16 009**	**-10 431**	**-19 037**	**1 640 480**

[1] *Including the current portion of non-current interest-bearing debt of € 152.3 million as at 1 January and € 686.1 million as at 31 December.*

6.18. Other non-current liabilities

Carrying amount in thousands of €	**2017**	**2018**
Other non-current amounts payable	153	149
Derivatives (cf. note 7.3.)	17 835	220
Put options on NCI (cf. note 7.3.)	9 133	11 033
Total	**27 121**	**11 402**

The derivatives relate to the embedded financial instrument (€ 0.2 million (2017: € 17.6 million)) of the convertible bond (see notes 6.17. 'Interest-bearing debt' and 7.3. 'Financial risk management and financial derivatives'). The put option (€ 11.0 million (2017: € 9.1 million)) is for a non-controlling interest in an investment. The amount of 2017 has been reclassified from derivatives to put options on NCI.

6.19. Other current liabilities

Carrying amount in thousands of €	**2017**	**2018**
Other amounts payable	10 394	10 355
Derivatives (cf. note 7.3.)	6 525	4 734
Advances received	10 746	11 259
Other taxes	26 312	28 841
Accruals and deferred income	8 406	7 445
Total	**62 382**	**62 634**

The derivatives include forward-exchange contracts (€ 1.5 million (2017: € 6.5 million)) and CCIRSs (€ 3.2 million). Other taxes predominantly relate to VAT payable, employment-related taxes withheld and other non-income taxes payable.

6.20. Tax positions

The table below provides an overview of the tax receivables, tax payables and uncertain tax positions recognized at balance sheet closing date. The tax receivables and payables include both current income taxes, VAT and other taxes.

in thousands of €	**2017**	**2018**
Tax receivables	106 682	114 412
Certain tax liabilities	35 502	35 464
Uncertain tax positions	65 350	64 687