

Stora Enso Interim Report

January–March 2019

Q1





A promising start of the year

Supported by the profit protection programme

Q1/2019 (compared with Q1/2018)

- Sales increased 2.2% to EUR 2 635 (2 579) million.
 - The highest first quarter since 2013 and the ninth consecutive quarter of growth.
 - The growth was primarily due to higher prices in all divisions, and improved product mix, despite lower volumes.
 - Sales excluding Paper increased 3.6%.
- Operational EBIT decreased to EUR 324 (369) million which was in the upper end of our guidance range of EUR 260–350 million.
 - The decrease was mainly due to a higher maintenance impact of EUR 20 million, decreased volumes and higher costs.
 - The operational EBIT margin was 12.3% (14.3%), above 10% for the seventh consecutive quarter.
- Operating profit (IFRS) was EUR 313 (355) million.
- EPS decreased by 16.0% to EUR 0.29 (0.35) and EPS excl. IAC was EUR 0.30 (0.35).
- Cash flow from operations decreased slightly to EUR 223 (229) million. Net working capital increased during the quarter by EUR 236 million because of seasonal reasons. Cash flow after investing activities amounted to EUR 94 (113) million.
- The net debt to operational EBITDA ratio increased to 1.7 (1.3), due to the adoption of IFRS 16 Leases (impact 0.3) and dividend payment.
- Operational ROCE was 14.0% (17.7%), above the strategic target of 13%. The impact of the adoption of IFRS 16 Leases was a negative 0.4 %-points.

Main events Q1/2019

- Stora Enso invests EUR 5 million to build a new production line and related infrastructure to manufacture formed fiber products at Hylte Mill in Sweden. The formed fiber technology enables manufacturing of products that are designed for circularity, meaning that they are renewable, recyclable and biodegradable and do not contain any plastic.
- The previously announced restructuring of Stora Enso's forest associate Bergvik Skog is proceeding as planned. The aim is to complete the transaction during the second quarter of 2019.
- The feasibility study about a potential conversion of the Oulu paper mill into packaging board production was completed. The proposed plan is to convert paper machine 7 into kraftliner production and close down paper machine 6 and the sheeting plant. The decision of the potential conversion is planned to be made by the Stora Enso Board of Directors during the first half of 2019 after the co-determination process has been completed.
- The investment in a new cross laminated timber (CLT) unit at the Gruvön sawmill was completed, and the first commercial volumes were produced during the quarter.

Profit protection programme

The profit protection programme launched in February 2019 to strengthen competitiveness is proceeding according to plan. The intention is to achieve annual cost reduction of EUR 120 million as well as reduction of capital expenditure by about EUR 50 million compared to the earlier forecast. Some effects will be visible already during 2019 with full impact by the end of 2020.

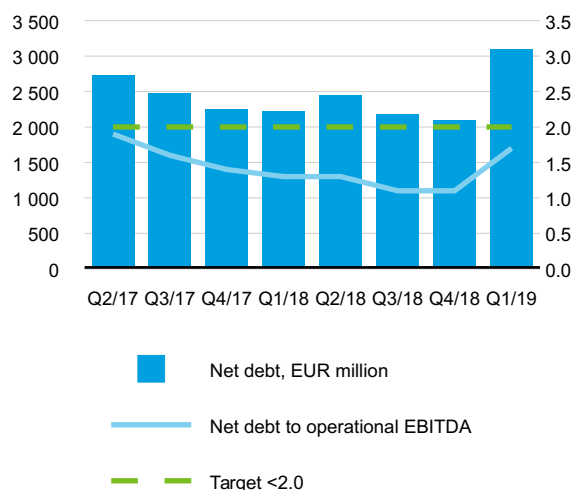
Outlook for 2019

Stora Enso's year 2019 is expected to be largely in line with 2018, provided that the current trading conditions do not significantly change. Demand growth is expected to continue for Stora Enso's other businesses except for European Paper, for which demand is forecast to continue to decline in 2019. Group's sales are expected to be higher and costs are forecast to increase in 2019 compared to 2018. Stora Enso will implement measures to mitigate these cost increases and the increased uncertainties with the profit protection programme.

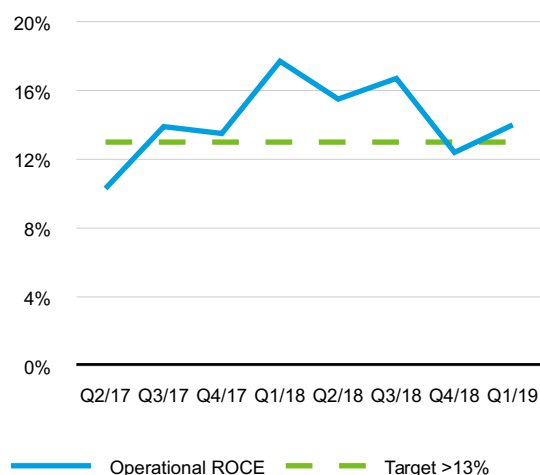
Guidance for Q2/2019

Q2/2019 operational EBIT is expected to be in the range of EUR 270–350 million. During the second quarter, there will be annual maintenance shutdown at the Nymölla paper mill. The total negative impact of maintenance is estimated to be EUR 35 million less compared to Q2/2018.

Net debt to operational EBITDA



Operational return on capital employed (ROCE)



Key figures

EUR million	Q1/19	Q1/18	Change % Q1/19-Q1/18	Q4/18	Change % Q1/19-Q4/18	2018
Sales	2 635	2 579	2.2%	2 657	-0.9%	10 486
Operational EBITDA	471	504	-6.5%	405	16.3%	1 878
Operational EBITDA margin	17.9%	19.5%		15.3%		17.9%
Operational EBIT	324	369	-12.3%	271	19.5%	1 325
Operational EBIT margin	12.3%	14.3%		10.2%		12.6%
Operating profit (IFRS)	313	355	-11.9%	356	-12.1%	1 390
Profit before tax excl. IAC	286	333	-14.2%	267	6.9%	1 190
Profit before tax (IFRS)	282	333	-15.4%	315	-10.5%	1 210
Net profit for the period (IFRS)	226	273	-17.4%	299	-24.4%	988
Cash flow from operations	223	229	-2.8%	323	-31.0%	1 365
Cash flow after investing activities	94	113	-17.2%	148	-37.0%	811
Capital expenditure	78	82	-4.6%	237	-67.0%	574
Capital expenditure excluding investments in biological assets	64	64	0.3%	215	-70.2%	491
Depreciation and impairment charges excl. IAC	133	121	10.0%	114	16.5%	479
Net interest-bearing liabilities	3 093	2 226	38.9%	2 092	47.8%	2 092
Operational return on capital employed (ROCE)	14.0%	17.7%		12.4%		15.5%
Earnings per share (EPS) excl. IAC, EUR	0.30	0.35	-14.9%	0.33	-8.3%	1.29
EPS (basic), EUR	0.29	0.35	-16.0%	0.39	-23.6%	1.28
Return on equity (ROE)	13.6%	17.8%		18.1%		15.5%
Net debt/equity ratio	0.47	0.36		0.31		0.31
Net debt to last 12 months' operational EBITDA ratio	1.7	1.3		1.1		1.1
Fixed costs to sales, %	22.4%	22.6%		25.0%		23.6%
Equity per share, EUR	8.27	7.79	6.2%	8.51	-2.9%	8.51
Average number of employees	26 036	25 442	2.3%	26 151	-0.4%	26 067
TRI rate ¹²	6.7	6.1	9.8%	8.1	-17.3%	6.1

Operational key figures, items affecting comparability and other non-IFRS measures: The list of Stora Enso's non-IFRS measures and the calculation of the key figures are presented at the end of this report. See also the chapter *Non-IFRS measures* at the beginning of the Financials section.

TRI (Total recordable incidents) rate = number of incidents per one million hours worked.

¹ For own employees, including employees of joint operations Veracel and Montes del Plata

² Historical figures recalculated due to additional data after the Q4/2018 Interim Report

Production and external deliveries

	Q1/19	Q1/18	Change % Q1/19-Q1/18	Q4/18	Change % Q1/19-Q4/18	2018
Consumer board deliveries, 1 000 tonnes	688	723	-4.9%	701	-1.9%	2 914
Consumer board production, 1 000 tonnes	691	769	-10.2%	694	-0.4%	2 922
Containerboard deliveries, 1 000 tonnes	242	257	-5.8%	213	13.6%	985
Containerboard production, 1 000 tonnes	324	335	-3.2%	338	-4.2%	1 320
Corrugated packaging deliveries, million m ²	230	229	0.5%	246	-6.5%	940
Corrugated packaging production, million m ²	257	265	-3.0%	273	-5.9%	1 048
Market pulp deliveries, 1 000 tonnes	541	497	8.9%	532	1.7%	2 017
Wood product deliveries, 1 000 m ³	1 203	1 236	-2.7%	1 285	-6.4%	5 095
Paper deliveries, 1 000 tonnes	1 079	1 172	-8.0%	1 121	-3.8%	4 591
Paper production, 1 000 tonnes	1 101	1 178	-6.5%	1 087	1.2%	4 633

CEO comment

We have had a promising start of the year and I am pleased to see that the profit protection programme is already supporting our development. Given the potential market weakness, we are convinced that the timing for activating the programme is right. During the first quarter of 2019, we focused on the balance between value creation and profit protection. It has obviously paid off. Sales continue to grow and profitability is on a good level. The sales increase of roughly 2% was primarily due to higher prices in all divisions and improved product mix, despite lower volumes. Operational EBIT decreased, while keeping a double-digit operational margin for the seventh consecutive quarter. Operational ROCE remains above our strategic target of 13%, despite additional capital of nearly EUR 300 million due to the implementation of IFRS 16.

Looking at our divisions, we had first quarter records in four out of five: Packaging Solutions and Biomaterials had record sales, while Wood Products and Paper delivered record profitability. Moreover, it is satisfying that our price increases are coming through gradually in Consumer Board.

We continue to drive our transformation projects forward and take active steps to contribute to a renewable future. Our recent investment in Hylte will enable manufacturing of formed fiber products that are designed for circularity. These products are renewable, recyclable, biodegradable and do not contain any plastic. Also, the first commercial volumes were produced during the quarter from our new cross laminated timber (CLT) investment at Gruvön. Wooden elements store carbon dioxide and substitute fossil based building materials, making them suitable for the development of green and sustainable cities.

On the note of sustainability, I am pleased that we have successfully issued our first Green Bonds to finance our ongoing transaction in Bergvik Skog. The aim is to complete the transaction during the second quarter of 2019. We have also completed our feasibility study of the potential conversion of the Oulu paper mill into packaging board production. The decision on the potential conversion is planned to be made by the Board of Directors during the first half of 2019 after the co-determination process has been completed.

I find it is important to support initiatives that can help to drive economics and society towards a plastic free future and we have joined the New Plastics Economy Global Commitment to eliminate plastic waste and pollution. This is led by the Ellen MacArthur Foundation, in collaboration with UN Environment. We contribute with our customers and suppliers by developing circular and low carbon solutions to replace plastic.

All in all, we have made good progress in increasing our share of the bioeconomy!

I am very proud that Stora Enso received the highest score in a recent diversity report in Finland. We believe diversity strengthens innovation and drives competitiveness, and we aim to reflect the societies in which we operate.

As always, I would like to thank our customers for their business, our employees for their dedication, and our investors for their trust.

Karl-Henrik Sundström, CEO

Operational EBIT

12.3%

Operational ROCE

14.0%

(Target >13%)

Net debt to operational EBITDA

1.7

(Target <2.0)

Reconciliation of operational profitability

EUR million	Q1/19	Q1/18	Change % Q1/19- Q1/18	Q4/18	Change % Q1/19- Q4/18	2018
Operational EBITDA	471	504	-6.5%	405	16.3%	1 878
Depreciation and depletion of equity accounted investments (EAI)	-2	-1	-10.7%	0	n/m	-7
Operational decrease in the value of biological assets	-13	-13	-1.3%	-20	35.7%	-66
Depreciation and impairment excl. IAC	-133	-121	-10.0%	-114	-16.5%	-479
Operational EBIT	324	369	-12.3%	271	19.5%	1 325
Fair valuations and non-operational items ¹	-7	-14	49.3%	37	-118.6%	45
Items affecting comparability (IAC)	-4	0	-	47	-108.5%	20
Operating profit (IFRS)	313	355	-11.9%	356	-12.1%	1 390

¹ Fair valuations and non-operational items include CO₂ emission rights, valuations of biological assets, and the Group's share of income tax and net financial items of EAI. Until the end of 2018, fair valuations and non-operational items also included equity incentive schemes and related hedges. The previous periods have not been restated due to immateriality.

First quarter 2019 results (compared with Q1/2018)

Breakdown of change in sales Q1/2018 to Q1/2019

Sales Q1/2018, EUR million	2 579
Price and mix	4%
Currency	0%
Volume	-3%
Other sales ¹	2%
Total before structural changes	2%
Structural changes ²	0%
Total	2%
Sales Q1/2019, EUR million	2 635

¹ Wood, energy, paper for recycling, by-products etc.

² Asset closures, major investments, divestments and acquisitions

Group sales increased 2.2% or EUR 56 million to EUR 2 635 million. This was the highest first quarter sales since 2013 and the ninth consecutive year-on-year quarter of growth. Topline growth was driven by higher sales prices in local currencies, especially in Paper. Lower deliveries, negatively impacted by changed maintenance schedule, were partly offset by higher external wood sales.

Operational EBIT decreased 12% or EUR 45 million to EUR 324 (369) million. The operational EBIT margin decreased by 2 %-points to 12.3% (14.3%). Higher prices were more than offset by continuing cost pressure, with some impact from profit protection programme at this early stage.

Higher sales prices, especially in Paper, improved operational EBIT by EUR 80 million. The total volume impact was EUR 25 million negative, partly due to changed maintenance schedule at Ostrołęka Mill's PM5 and Veracel.

Variable costs continued to increase and were EUR 76 million higher, mainly due to increased wood costs. Fixed costs increased by EUR 8 million, impacted by changed maintenance schedule. Net foreign exchange impact decreased operational EBIT by EUR 6 million. Operational result from equity accounted investments and closed units increased profitability by EUR 1 million. Depreciation was EUR 10 million higher, driven by adoption of IFRS16 Leases standard, which had overall a slight positive impact at operational EBIT level, as EUR 3 million is moved to interest costs from operative costs.

The planned and unplanned production downtime was 12% (3%) for paper, 9% (1%) for board, and 1% (0%) for wood products.

The average number of employees in the first quarter of 2019 was approximately 26 000 (25 400).

Fair valuations and non-operational items had a negative net impact on the operating profit of EUR 7 million (negative EUR 14 million). The impact came mainly from charges related to financial instruments in the Nordic equity accounted investment Tornator.

Earnings per share decreased by 16.0% to EUR 0.29 (EUR 0.35) and earnings per share excluding items affecting comparability (IAC) decreased to EUR 0.30 (EUR 0.35).

The Group recorded an item affecting comparability (IAC) with a negative impact of EUR 4 (EUR 0) million on its operating profit. The IAC relates to the plans to shut down paper machine 6 at Imatra Mills in Finland. This is part of the earlier announced ongoing profit protection programme.

Net financial expenses at EUR 31 million were EUR 9 million higher. Net interest expenses at EUR 38 million increased by EUR 9 million compared to a year ago mainly as a result of IFRS 16 implementation and higher gross debt levels. Other net financial expenses were EUR 5 (EUR 3) million. The net foreign exchange impact in respect of cash, interest-bearing assets and liabilities and related foreign-currency hedges amounted to a gain of EUR 12 (gain of EUR 10) million, mainly due to revaluation of foreign currency net debt in subsidiaries.

Breakdown of change in capital employed 31 March 2018 to 31 March 2019

EUR million	Capital employed
31 March 2018	8 414
Capital expenditure less depreciation	47
Right-of-use assets - adoption of IFRS 16 Leases	530
Impairments and reversal of impairments	-1
Fair valuation of biological assets	-1
Costs related to growth of biological assets	-65
Unlisted securities (mainly PVO)	89
Equity accounted investments	192
Net liabilities in defined benefit plans	-27
Operative working capital and other interest-free items, net	342
Net tax liabilities	-58
Translation difference	125
Other changes	43
31 March 2019	9 628

The operational return on capital employed (ROCE) in the first quarter of 2019 was 14.0% (17.7%). The adoption of the IFRS 16 Leases had a negative impact of 0.4%-point on ROCE.

First quarter 2019 results (compared with Q4/2018)

Sales decreased by EUR 22 million, or 0.9%, to EUR 2 635 million. Operational EBIT increased by EUR 53 million to EUR 324 million. Sales prices in local currencies had EUR 5 million negative and volumes EUR 3 million negative impact on operational EBIT. Variable costs were EUR 21 million lower, despite higher energy costs during winter months, as fibre costs, mainly pulp, more than offset this. Fixed costs were clearly lower due to lower maintenance activity and increased operational EBIT by EUR 70 million. The net foreign exchange impact decreased the profitability by EUR 5 million. Operational result from equity accounted investments decreased operational EBIT by EUR 7 million. Depreciations were EUR 17 million higher, driven by the adoption of IFRS16 Leases standard.

Segments in the first quarter 2019 (compared with Q1/2018)

Consumer Board division

Price increases coming through gradually

The ambition of the Consumer Board division is to be the global leader in high-quality virgin fibre cartonboard. We aim to be the preferred partner of customers and brand owners in premium end-use packaging and graphical segments. Our wide board and barrier coating selection is suitable for consumer packaging for liquid, food, pharmaceutical and luxury goods.

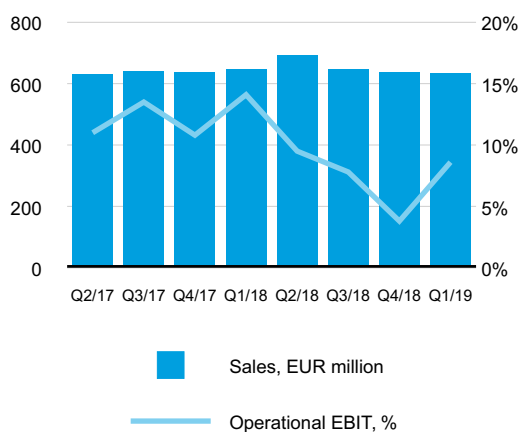
EUR million	Q1/19	Q1/18	Change % Q1/19-Q1/18	Q4/18	Change % Q1/19-Q4/18	2018
Sales	634	646	-1.9%	637	-0.5%	2 622
Operational EBITDA	101	136	-26.0%	74	36.0%	423
Operational EBITDA margin	15.9%	21.1%		11.6%		16.1%
Operational EBIT	54	91	-40.3%	24	122.1%	231
Operational EBIT margin	8.6%	14.1%		3.8%		8.8%
Operational ROOC	10.3%	18.5%		5.0%		11.9%
Cash flow from operations	56	49	13.3%	65	-14.2%	339
Cash flow after investing activities	11	10	14.0%	13	-12.9%	177
Board deliveries, 1 000 tonnes	688	723	-4.8%	701	-1.9%	2 916
Board production, 1 000 tonnes	691	769	-10.2%	694	-0.4%	2 922

- Sales decreased slightly, 1.9% or EUR 12 million to EUR 634 million mainly due to lower deliveries. Lower board deliveries were partly offset by higher pulp deliveries, as Nordic wood shortage situation had a negative impact in pulp deliveries a year ago. Local sales prices had a slight positive impact on sales.
- Operational EBIT decreased EUR 37 million to EUR 54 million. Slightly higher sales prices were more than offset by significantly higher variable costs, especially for wood, as well as negative total volume impact.
- Operational ROOC declined to 10.3%, mainly due to lower profitability and the impact of IFRS 16 Leases.
- The EUR 42 million investment in flash-drying capacity of chemi-thermomechanical pulp (CTMP) at Imatra Mills was completed successfully during the quarter. The investment enhances the availability of CTMP at the mill and drives the commercialisation of micro-fibrillated cellulose (MFC).
- Stora Enso launched a premium quality folding boxboard in China, called Arctic Deer™ by Stora Enso. Produced at Beihai Mill, Arctic Deer is suitable for applications in food and pharmaceutical packaging, as well as in publications.
- Co-determination negotiations concerning the closure of paper machine (PM) 6 at Stora Enso's Imatra Mills in Finland, ended on 15 April 2019. PM6 will be shut down by the end of 2019, and it will decrease Stora Enso's annual sales by approximately EUR 70 million. The annual capacity of PM6 is 90 000 tonnes of packaging papers. The closure is part of the Group's profit protection programme.

Markets

Product	Market	Demand Q1/19 compared with Q1/18	Demand Q1/19 compared with Q4/18	Price Q1/19 compared with Q1/18	Price Q1/19 compared with Q4/18
Consumer board	Europe	Slightly stronger	Stable	Slightly higher	Slightly higher

Sales and operational EBIT



Operational ROOC

10.3%

(Target: >20%)

Scheduled annual maintenance shutdowns

	2019	2018
Q1	–	–
Q2	–	Beihai Mill
Q3	Beihai and Imatra mills	Imatra and Ingerois mills
Q4	Fors, Ingerois and Skoghall mills	Skoghall and Fors mills

Packaging Solutions division

Record Q1 sales

The Packaging Solutions division provides fibre-based board materials and corrugated packaging products and services that are designed for a wide array of applications. Our renewable high-end packaging solutions serve leading converters, brand owners and retailers – including those in e-commerce that are looking to optimise performance, drive innovation and improve their sustainability.

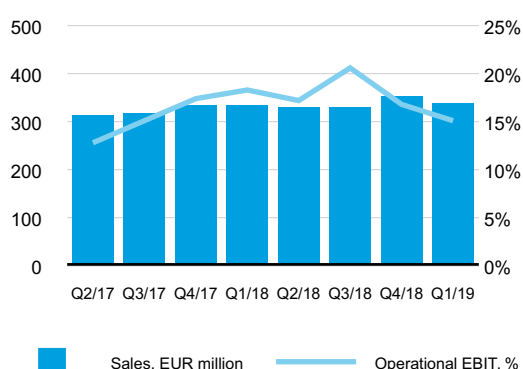
EUR million	Q1/19	Q1/18	Change % Q1/19-Q1/18	Q4/18	Change % Q1/19-Q4/18	2018
Sales	338	333	1.6%	352	-3.8%	1 344
Operational EBITDA	70	78	-10.1%	76	-8.3%	313
Operational EBITDA margin	20.7%	23.4%		21.7%		23.3%
Operational EBIT	51	61	-16.0%	59	-13.1%	245
Operational EBIT margin	15.1%	18.3%		16.8%		18.2%
Operational ROOC	21.8%	27.7%		25.7%		27.2%
Cash flow from operations	60	65	-8.3%	66	-10.0%	272
Cash flow after investing activities	48	46	4.5%	41	18.5%	172
Board deliveries, 1 000 tonnes	329	331	-0.5%	336	-2.0%	1 308
Board production, 1 000 tonnes	324	335	-3.2%	338	-4.2%	1 320
Corrugated packaging deliveries, million m ²	259	263	-1.4%	276	-6.0%	1 059
Corrugated packaging production, million m ²	257	265	-3.0%	273	-5.9%	1 048

- Sales increased 1.6%, or EUR 5 million, to record high Q1 of EUR 338 million due to higher prices in Corrugated and SC Fluting.
- Operational EBIT decreased EUR 10 million to EUR 51 million. Higher sales prices were offset by overall higher costs and lower China Packaging sales margin. Changed maintenance schedule compared to a year ago for Ostrołęka Mill's PM5 decreased production and increased maintenance costs.
- Operational ROOC at 21.8% remained above the long-term target of 20%.
- An industrial scale pilot plant will be built at the Heinola fluting mill in Finland to turn sludge from the mill's water treatment plant into renewable fuel. The plant will test new energy-efficient technology. The new biofuels will reduce the carbon dioxide emissions at the mill's power plant.

Markets

Product	Market	Demand Q1/19 compared with Q1/18	Demand Q1/19 compared with Q4/18	Price Q1/19 compared with Q1/18	Price Q1/19 compared with Q4/18
Virgin fibre-based containerboard	Global	Slightly weaker	Slightly weaker	Higher	Slightly lower
Recycled fibre based (RCP) containerboard	Europe	Slightly weaker	Stable	Lower	Lower
Corrugated packaging	Europe	Stable	Stable	Higher	Stable

Sales and operational EBIT



Operational ROOC

21.8%

(Target: >20%)

Scheduled annual maintenance shutdowns

	2019	2018
Q1	Ostrołęka Mill PM5	–
Q2	–	Heinola and Varkaus mills
Q3	Heinola and Ostrołęka kraft mills	Ostrołęka Mill
Q4	Varkaus Mill	–

Biomaterials division

Good performance continues – record quarter

The Biomaterials division offers a wide variety of pulp grades to meet the demands of paper, board, tissue, textile and hygiene product producers. We are maximising the business potential of the by-products extracted in our processes, such as tall oil and turpentine from biomass. Based on our strong innovation approach, all fractions of biomass, like sugars and lignin, hold substantial potential for use in various applications.

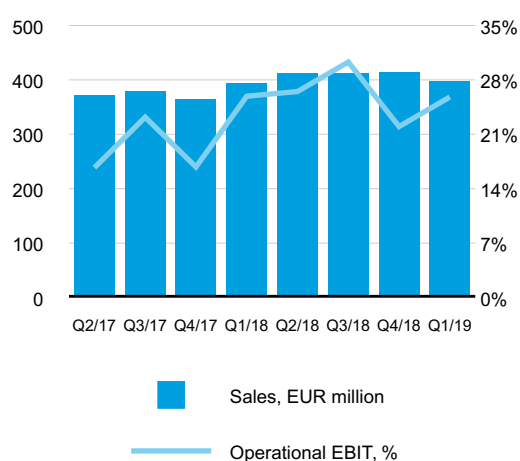
EUR million	Q1/19	Q1/18	Change % Q1/19-Q1/18	Q4/18	Change % Q1/19-Q4/18	2018
Sales	398	394	1.1%	415	-4.1%	1 635
Operational EBITDA	135	136	-0.8%	116	15.9%	550
Operational EBITDA margin	33.9%	34.5%		28.0%		33.6%
Operational EBIT	103	102	0.9%	91	12.8%	427
Operational EBIT margin	25.8%	25.9%		22.0%		26.1%
Operational ROOC	16.2%	17.6%		15.0%		17.9%
Cash flow from operations	105	67	57.1%	117	-9.8%	438
Cash flow after investing activities	69	45	53.2%	80	-13.3%	327
Pulp deliveries, 1 000 tonnes	588	611	-3.9%	611	-3.9%	2 432

- Sales increased 1.1% or EUR 4 million to record high Q1 of EUR 398 million. Sales prices were slightly higher and supported by positive foreign exchange rates. Deliveries were lower mainly due to changed maintenance schedule at Veracel Mill, in Brazil.
- Operational EBIT was at record high Q1 level of EUR 103 million. Sales prices were higher, offsetting increased variable and fixed costs. Wood and transportation costs were higher and pulp deliveries were lower due to change in Veracel maintenance schedule. The maintenance break also increased the fixed costs.
- Operational ROOC remained above the strategic target level at 16.2%.

Markets

Product	Market	Demand Q1/19 compared with Q1/18	Demand Q1/19 compared with Q4/18	Price Q1/19 compared with Q1/18	Price Q1/19 compared with Q4/18
Softwood pulp	Europe	Slightly weaker	Stable	Stable	Lower
Hardwood pulp	Europe	Slightly weaker	Stronger	Slightly higher	Slightly lower
Hardwood pulp	China	Significantly weaker	Slightly stronger	Significantly lower	Slightly lower

Sales and operational EBIT



16.2%

(Target: >15%)

Scheduled annual maintenance shutdowns

	2019	2018
Q1	Veracel Mill	–
Q2	–	Enocell Mill
Q3	Enocell Mill	Sunila Mill
Q4	Montes del Plata and Skutskär mills	Montes del Plata and Skutskär mills

Wood Products division

Continues on record level

The Wood Products division is a leading provider of innovative wood-based solutions. The product range covers all areas of construction, including massive wooden elements and wooden components. It also includes a variety of sawn timber goods and pellets for sustainable heating. The emerging product range of Biocomposites addresses the opportunities to replace plastics in consumer goods and creates potential in various demanding exterior applications in a cost-competitive way.

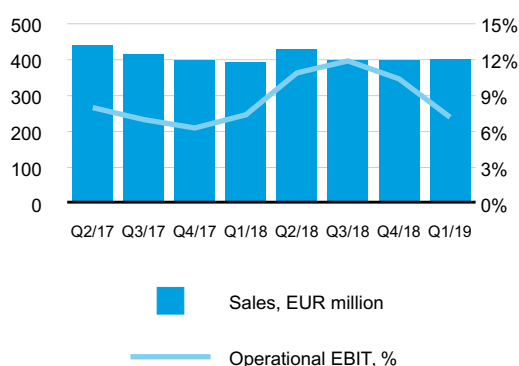
EUR million	Q1/19	Q1/18	Change % Q1/19-Q1/18	Q4/18	Change % Q1/19-Q4/18	2018
Sales	403	393	2.6%	399	1.0%	1 622
Operational EBITDA	40	38	6.1%	50	-19.6%	199
Operational EBITDA margin	10.0%	9.7%		12.6%		12.3%
Operational EBIT	29	29	0.7%	42	-29.7%	165
Operational EBIT margin	7.2%	7.4%		10.4%		10.2%
Operational ROOC	17.7%	20.4%		27.1%		28.1%
Cash flow from operations	19	11	73.2%	38	-49.3%	147
Cash flow after investing activities	8	-7	214.1%	23	-65.7%	80
Wood products deliveries, 1 000 m ³	1 168	1 190	-1.8%	1 247	-6.4%	4 932

- Sales increased 2.6%, or EUR 10 million. Slightly higher sales prices and favourable mix changes were only partly offset by lower deliveries.
- Operational EBIT at record high Q1 level of EUR 29 million. Increased sales prices were offset by higher fixed costs, mainly related to start-up preparations of strategic investments, and negative impact from volumes.
- Operational ROOC decreased below 20% strategic target at 17.7%, despite same profitability, due to capital increase at Gruvön new cross-laminated timber (CLT) plant, seasonality and adoption of IFRS16 Leases.
- The investment in a new cross laminated timber (CLT) unit at the Gruvön sawmill was completed, and the first commercial volumes were produced during the quarter.
- During the quarter, Stora Enso was selected as the provider of wooden materials for the following landmark building projects around the world, among others:
 - Entrepatis in Madrid, Spain. An interesting concept of residential houses combining a new method of construction with a new way of living to an affordable price.
 - Astor in Geel, Belgium. A senior housing project which is the highest hybrid timber and concrete structure in Belgium.
 - University of Kent, a three storey building providing lecture theatres, classrooms and IT suites. The structural solution uses a Hybrid construction of a steel frame and cross laminated timber floor/roof slabs.
 - IQL Pavilion International Quarter London (IQL). Built from CLT and glulam, the multi-storey event pavilion will house the Queen Elizabeth Olympic Park visitor centre, a café and two restaurants.
 - Volda student houses in Romsdal, Norway, comprising of 120 apartments.

Markets

Product	Market	Demand Q1/19 compared with Q1/18	Demand Q1/19 compared with Q4/18	Price Q1/19 compared with Q1/18	Price Q1/19 compared with Q4/18
Wood products	Europe	Slightly weaker	Stable	Slightly higher	Slightly lower

Sales and operational EBIT



Operational ROOC

17.7%

(Target: >20%)

Paper division

Record high Q1 profitability

Stora Enso is the second largest paper producer in Europe with an established customer base and a wide product portfolio for print and office use. Customers benefit from Stora Enso's broad selection of papers made from recycled and virgin fibre as well as our valuable industry experience, know-how and customer support.

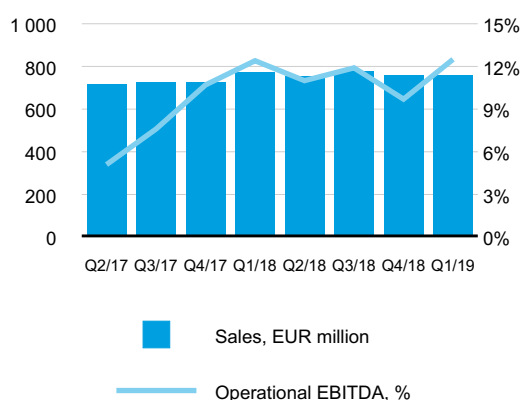
EUR million	Q1/19	Q1/18	Change % Q1/19-Q1/18	Q4/18	Change % Q1/19-Q4/18	2018
Sales	760	772	-1.5%	761	-0.1%	3 066
Operational EBITDA	95	96	-0.8%	73	29.6%	345
Operational EBITDA margin	12.5%	12.4%		9.7%		11.3%
Operational EBIT	69	69	-0.2%	45	52.7%	234
Operational EBIT margin	9.1%	8.9%		5.9%		7.6%
Operational ROOC	33.7%	36.7%		22.9%		30.2%
Cash flow from operations	59	59	0.0%	31	91.2%	222
Cash flow after investing activities	46	48	-3.8%	19	145.1%	175
Cash flow after investing activities to sales, %	6.1%	6.2%		2.5%		5.7%
Paper deliveries, 1 000 tonnes	1 079	1 172	-8.0%	1 121	-3.8%	4 591
Paper production, 1 000 tonnes	1 101	1 178	-6.5%	1 087	1.2%	4 633

- Sales decreased 1.5%, or EUR 12 million, to EUR 760 million, as clearly higher sales prices in all grades and a better mix were more than offset by lower sales volumes.
- Operational EBIT remained at last year level of EUR 69 million, but margin increased to 9.1%, highest in ten years. Significantly higher sales prices in all grades and slightly lower fixed costs were offset by increased variable costs, especially in wood, pulp and energy as well as lower volumes.
- Cash flow after investing activities to sales ratio remained stable at 6.1% (6.2%), slightly below long term target.
- Stora Enso announced in March that it would start co-determination negotiations with employees at Oulu Mill in Finland regarding the earlier announced plan to convert the paper mill into packaging board production and the closure of paper machine 6 and a sheeting plant. The planned change could result in a reduction of a maximum of 400 employees at the mill. The decision on the potential conversion is planned to be made by the Stora Enso Board of Directors during the first half of 2019 after the co-determination process has been completed.

Markets

Product	Market	Demand Q1/19 compared with Q1/18	Demand Q1/19 compared with Q4/18	Price Q1/19 compared with Q1/18	Price Q1/19 compared with Q4/18
Paper	Europe	Weaker	Slightly weaker	Higher	Slightly higher

Sales and operational EBITDA



Cash flow after investing activities to sales¹

6.1%

(Target: >7%)

Scheduled annual maintenance shutdowns

	2019	2018
Q1	–	–
Q2	Nymölla Mill	Oulu Mill
Q3	Veitsiluoto Mill	Veitsiluoto Mill
Q4	Oulu Mill	–

¹ The Paper division's financial target is cash flow after investing activities to sales (non-IFRS), because the division's goal is to generate cash flow for the Group so that it can transform into a renewable materials growth company.

Segment Other

The segment Other includes the Nordic forest equity-accounted investments, Stora Enso's shareholding in the energy company Pohjolan Voima, operations supplying wood to the Nordic and Baltic mills, plantations not connected to any mill site, and the Group's shared services and administration.

EUR million	Q1/19	Q1/18	Change % Q1/19-Q1/18	Q4/18	Change % Q1/19-Q4/18	2018
Sales	922	838	10.0%	913	1.0%	3 425
Operational EBITDA	30	20	50.3%	15	102.9%	48
Operational EBITDA margin	3.3%	2.4%		1.6%		1.4%
Operational EBIT	17	17	0.5%	9	81.3%	23
Operational EBIT margin	1.9%	2.0%		1.0%		0.7%
Cash flow from operations	-76	-22	-243.9%	7	n/m	-53
Cash flow after investing activities	-89	-29	-206.8%	-27	-237.0%	-119

- Sales increased EUR 84 million to EUR 922 million, on the back of increased external wood sales.
- Operational EBIT remained unchanged at EUR 17 million.
- Stora Enso invests EUR 5 million to build a new production line and related infrastructure to manufacture formed fiber products at Hylte Mill in Sweden. The formed fiber technology enables manufacturing of products that are designed for circularity, meaning that they are renewable, recyclable and biodegradable and do not contain any plastic.
- The previously announced restructuring of Stora Enso's forest associate Bergvik Skog is proceeding as planned. The aim is to complete the transaction during the second quarter of 2019.

Financing in the first quarter 2019 (compared with Q4/2018)

Capital structure

EUR million	31 Mar 2019	31 Dec 2018	31 Mar 2018
Operative fixed assets ¹	7 197	6 636	6 417
Equity accounted investments	1 707	1 729	1 536
Operative working capital, net	1 330	1 078	984
Non-current interest-free items, net	-482	-488	-456
Operating Capital Total	9 752	8 955	8 481
Net tax liabilities	-124	-132	-67
Capital Employed	9 628	8 824	8 414
Equity attributable to owners of the Parent	6 522	6 714	6 142
Non-controlling interests	13	18	46
Net interest-bearing liabilities	3 093	2 092	2 226
Financing Total	9 628	8 824	8 414

¹ Operative fixed assets include goodwill, other intangible assets, property, plant and equipment, right-of-use assets, biological assets, emission rights, and unlisted securities.

Cash and cash equivalents net of overdrafts increased by EUR 92 million to EUR 1 221 million mainly as a result of net proceeds from the issue of new long-term debt under the Green Bond framework partly offset by dividend payment. Net debt increased to EUR 3 093 (EUR 2 092) million mainly as a result of IFRS 16 implementation and dividend payment. The adoption of IFRS 16 Leases increased net debt by EUR 526 million. The ratio of net debt to the last 12 months' operational EBITDA was 1.7, compared to the ratio of 1.1 at the end of the previous quarter. The net debt/equity ratio on 31 March 2019 was 0.47 (0.31).

In the first quarter Stora Enso successfully issued its first Green Bonds with a total nominal value of SEK 6 000 million. The bonds consist of three tranches with SEK 3 000 million maturing in August 2021 and paying a floating coupon of STIBOR +0.85%, SEK 1 250 million maturing in February 2024 and paying a floating coupon of STIBOR +1.45%, and SEK 1 750 million maturing in February 2024 and paying a fixed coupon of 1.875%. There are no financial covenants for the bonds.

Stora Enso has EUR 600 million committed revolving credit facility that was fully undrawn at the quarter end. Additionally, Stora Enso has access to various long-term sources of funding up to EUR 1 000 (1 000) million.

The fair value of Pohjolan Voima (PVO) shares, accounted for as equity investment fair valued through other comprehensive income under IFRS 9, decreased in the quarter by EUR 21 million to EUR 394 million. The change in the fair value was mainly driven by changes in trading multiple valuation parameters.

Cash flow in the first quarter 2019 (compared with Q4/2018)

Operative cash flow

EUR million	Q1/19	Q1/18	Change % Q1/19- Q1/18	Q4/18	Change % Q1/19- Q4/18	2018
Operational EBITDA	471	504	-6.5%	405	16.3%	1 878
IAC on operational EBITDA	-1	0	-100.0%	47	-102.1%	20
Other adjustments	-12	-15	21.8%	-81	85.4%	-104
Change in working capital	-236	-260	9.3%	-50	n/m	-428
Cash Flow from Operations	223	229	-2.8%	323	-31.0%	1 365
Cash spent on fixed and biological assets	-123	-116	-5.8%	-155	20.9%	-525
Acquisitions of equity accounted investments	-6	0	-100.0%	-19	66.7%	-29
Cash Flow after Investing Activities	94	113	-17.2%	148	-37.0%	811

First quarter 2019 cash flow after investing activities was EUR 94 million. Working capital increased by EUR 236 million, mainly due to seasonally higher inventories and higher trade receivables. Cash spent on fixed and biological assets was EUR 123 million. Payments related to the previously announced provisions were EUR 4 million.

Capital expenditure

Additions to fixed and biological assets in the first quarter 2019 totalled EUR 78 (82) million, of which EUR 64 million were fixed assets including EUR 4 million of leases capex, and EUR 14 million biological assets. Depreciations and impairment charges totalled EUR 133 (121) million. Additions in fixed and biological assets had a cash outflow impact of EUR 123 (116) million.

The main projects ongoing in the first quarter of 2019 were the malodorous gas handling and chemi-thermomechanical pulp (CTMP) flash drying at Imatra Mills in Finland, the capacity extension and technology upgrade in the China Packaging unit, the fluff pulp investment at Skutskär Mill in Sweden, the dissolving pulp investment at Enocell Mill in Finland the Launkalne sawmill expansion in Latvia, and the new steam turbine project at Maxau Mill in Germany.

Capital expenditure and depreciation forecast 2019

EUR million	Forecast 2019
Capital expenditure	540–590
Depreciation and operational decrease in biological asset values	590–630

Stora Enso's capital expenditure forecast for 2019 includes approximately EUR 100 million for the Group's biological assets and the capitalised leasing contracts according to IFRS 16 Leases of approximately EUR 40 million. The capital expenditure forecast takes into account a reduction of EUR 50 million as part of the profit protection programme. The depreciation and operational decrease in biological asset values forecast includes also the IFRS 16 impact. The amount of operational decrease in biological asset values in the forecast is EUR 50–70 million.

Sustainability in the first quarter 2019 (compared with Q1/2018)

Safety performance

TRI rate

	Q1/19	Q1/18	Q4/18	2018	Milestone	Milestone to be reached by
TRI rate ^{1 2}	6.7	6.1	8.1	6.1	5.3	end of 2019

TRI (Total recordable incident) rate = number of incidents per one million hours worked

¹ For own employees, including employees of joint operations Veracel and Montes del Plata

² Historical figures recalculated due to additional data after the Q4/2018 Interim Report

The milestone for 2019 is 5.3. The first part of the quarter had weak performance with an unacceptably high level of slips, trips and falls.

There was a fatal accident involving a contractor's worker at Warsaw paper for recycling (PFR) plant in Poland in March.

Suppliers

Implementation of the Supplier Code of Conduct

	31 Mar 2019	31 Dec 2018	31 Mar 2018	Target
% of supplier spend covered by the Supplier Code of Conduct ¹	95%	95%	95%	95%

¹ Excluding joint operations, intellectual property rights, leasing fees, financial trading, and government fees such as customs, and wood purchases from private individual forest owners.

The target is to maintain the high coverage level of 95%.

Human rights

During the quarter, the identification of the cornerstones for a compliance monitoring programme on the Group's eight highest priority human rights was finalised with a gap assessment of current monitoring and reporting processes. The next step is to address the gaps. The reporting on human rights in the Interim Reports will be stopped, and will continue in our Annual Report. Material updates on the human rights work will be provided at Stora Enso's website at storaenso.com/sustainability.

Forests, plantations, and land use

Agreements with social landless movements and land occupations in Bahia, Brazil

	31 Mar 2019	31 Dec 2018	31 Mar 2018
Productive area occupied by social movements not involved in the agreements, ha	468	468	3 043

At the end of the first quarter, 468 hectares of productive land owned by Veracel were occupied by social landless movements not involved in the agreements. Veracel continues to recover occupied areas through legal processes.

Previously Veracel has voluntarily reserved 16 500 hectares to support the Sustainable Settlement Initiative. At the end of 2018, the total land area owned by Veracel was 213 500 hectares, of which 76 000 hectares are planted with eucalyptus for pulp production.

Carbon dioxide

Science-based target (SBT) performance compared to 2010 base-year level

	Q1/19	Q1/18	Q4/18	2018	Target	Target to be reached by
Reduction of fossil CO ₂ e emissions per saleable tonne of board, pulp, and paper (kg/t) ^{1 2}	-13%	-8%	-16%	-18%	-31%	end of 2030

¹ Covering direct fossil CO₂e emissions from production and indirect fossil CO₂e emissions related to purchased electricity and heat (Scope 1 and 2). Excluding joint operations.

² Historical figures recalculated due to additional data after the Q4/2018 Interim Report

In December 2017, Stora Enso's Science Based Targets to combat global warming were approved by the Science Based Target Initiative. With the new targets, Stora Enso commits to reduce greenhouse gas (GHG) emissions from operations 31% per tonne of board, pulp, and paper produced by 2030 from a 2010 base-year.

Other events

Stora Enso joined the New Plastics Economy Global Commitment, an initiative of the Ellen MacArthur Foundation and UN Environment. Its vision is to eliminate plastic waste and pollution at source through a circular economy model.

Stora Enso received the highest scores in the FINDIX report, a new diversity comparison in Finland. The study examined the diversity of 89 Finnish companies through five different variables.

Stora Enso received Ecovadis' highest recognition level, Gold, for its sustainability performance as a supplier.

Short-term risks and uncertainties

Increasing competition, and supply and demand imbalances in the paper, pulp, packaging, wood products and roundwood markets may affect Stora Enso's market share and profitability. Changes in the global economic and political environment, sharp market corrections, increasing volatility in foreign exchange rates and deteriorating economic conditions in the main markets could all affect Stora Enso's profits, cash flows and financial position.

With reference to current geopolitical circumstances, there is an increasing risk of an escalation in protectionist measures to the extent that global trade could materially shrink. This would have major knock-on effects for inflation, business sentiment, consumer sentiment and ultimately global economic growth.

Furthermore, as the global economy is moving into a new phase where the main central banks will begin to reduce or reverse their lenient monetary policy positions, such developments may give rise to significant uncertainty and negatively affect Stora Enso's business conditions.

To mitigate the impact of deteriorating geopolitical and macroeconomic conditions, and increased uncertainty in the global economy, Stora Enso has initiated a Profit Protection Programme, targeting EUR 120 million reductions in fixed and variable costs by the end of 2020.

Other risks and uncertainties include, but are not limited to, general industry conditions, such as changes in the cost or availability of raw materials, energy and transportation costs, unanticipated expenditures related to the cost of compliance with existing and new environmental and other governmental regulations and to actual or potential litigation, material disruption at one of our manufacturing facilities, risks inherent in conducting business through joint ventures, and other factors that can be found in Stora Enso's press releases and disclosures.

A more detailed description of risks is available in Stora Enso's Financial Report at storaenso.com/annualreport2018

Energy sensitivity analysis: the direct effect of a 10% increase in electricity, heat, oil and other fossil fuel market prices would have a negative impact of approximately EUR 12 million on operational EBIT for the next 12 months, after the effect of hedges.

Wood sensitivity analysis: the direct effect of a 10% increase in wood prices would have a negative impact of approximately EUR 198 million on operational EBIT for the next 12 months.

Pulp sensitivity analysis: the direct effect of a 10% increase in pulp market prices would have a positive impact of approximately EUR 135 million on operational EBIT for the next 12 months.

Chemical and filler sensitivity analysis: the direct effect of a 10% increase in chemical and filler prices would have a negative impact of approximately EUR 53 million on operational EBIT for the next 12 months.

A decrease of energy, wood, pulp or chemical and filler prices would have the opposite impact.

Foreign exchange rates sensitivity analysis for the next twelve months: the direct effect on operational EBIT of a 10% strengthening in the value of the US dollar, Swedish krona and British pound against the euro would be approximately positive EUR 162 million, negative EUR 101 million and positive EUR 35 million annual impact, respectively. Weakening of the currencies would have the opposite impact. These numbers are before the effect of hedges and assuming no changes occur other than a single currency exchange rate movement.

The Group incurs annual unhedged net costs worth approximately EUR 120 million in Brazilian real (BRL) in its operations in Brazil and approximately EUR 110 million in Chinese Renminbi (CNY) in its operations in China. For these flows, a 10% strengthening in the value of a foreign currency would have a EUR 12 million and EUR 11 million negative impact on operational EBIT, respectively.

Legal proceedings

Contingent liabilities

Stora Enso has undertaken significant restructuring actions in recent years which have included the divestment of companies, sale of assets and mill closures. These transactions include a risk of possible environmental or other obligations the existence of which would be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Group.

Stora Enso is party to legal proceedings that arise in the ordinary course of business and which primarily involve claims arising out of commercial law. The management does not consider that liabilities related to such proceedings before insurance recoveries, if any, are likely to be material to the Group's financial condition or results of operations.

Legal proceedings in Latin America

Veracel

On 11 July 2008, Stora Enso announced that a federal judge in Brazil had issued a decision claiming that the permits issued by the State of Bahia for the operations of Stora Enso's joint operations company Veracel were not valid. The judge also ordered Veracel to take certain actions, including reforestation with native trees on part of Veracel's plantations and a possible fine of BRL 20 (EUR 5) million. Veracel disputes the decision and has filed an appeal against it. Veracel operates in full compliance with all Brazilian laws and has obtained all the necessary environmental and operating licences for its industrial and forestry activities from the relevant authorities. In November 2008, a Federal Court suspended the effects of the decision. No provisions have been recorded in Veracel's or Stora Enso's accounts for the reforestation or the possible fine.

Legal proceedings in Sweden

Insurance claim

In July and August 2016, six Swedish insurance companies filed lawsuits in the Environmental Court and the District Court of Falun against Stora Enso, due to damage caused by the forest fire in Västmanland, Sweden, in 2014. The claimed amount is approximately SEK 300 (EUR 30) million, excluding interest. Stora Enso denies liability. The Supreme Court has in a decision found that the Environmental code is not applicable on damage caused by fire, closing the procedure in the Environmental Court. Further it has come to Stora Enso's knowledge that the Supreme Court, in a case which Stora Enso is not party, has ruled that a traffic insurance held by Stora Enso's sub-supplier is applicable on the damage. This traffic insurance cover damage up to SEK 300 million, excluding interest, which corresponds to the amount claimed from Stora Enso.

Company fine

In January 2018, a Swedish prosecutor filed a lawsuit against Stora Enso and its supplier, due to the forest fire in Västmanland, Sweden in 2014, claiming a company fine of SEK 5 million each. Both Stora Enso and the supplier have disputed the claim.

Major events in 2019

Decisions of Annual General Meeting 2019

Stora Enso Oyj's Annual General Meeting (AGM) was held on 14 March 2019 in Helsinki. The AGM approved the proposal by the Board of Directors that the Company distributes a dividend of EUR 0.50 per share for the year 2018.

The AGM approved the proposal that of the current members of the Board of Directors – **Jorma Eloranta, Elisabeth Fleuriot, Hock Goh, Christiane Kuehne, Antti Mäkinen, Richard Nilsson, Göran Sandberg, and Hans Stråberg** – be re-elected members of the Board of Directors until the end of the following AGM and that **Mikko Helander** be elected new member of the Board of Directors for the same term of office. The AGM elected Jorma Eloranta as Chairman of the Board of Directors and Hans Stråberg as Vice Chairman.

The AGM approved the proposed annual remuneration for the Board of Directors as follows:

Chairman	EUR 192 000 (2018: 175 000)
Vice Chairman	EUR 109 000 (2018: 103 000)
Members	EUR 74 000 (2018: 72 000)

The AGM also approved the proposal that the annual remuneration for the members of the Board of Directors, be paid in Company shares and cash so that 40% will be paid in Stora Enso R shares to be purchased on the Board members' behalf from the market at a price determined in public trading, and the rest in cash.

The AGM also approved the proposed annual remuneration for the Board committees.

The AGM approved the proposal that PricewaterhouseCoopers Oy be elected as auditor until the end of the following AGM. PricewaterhouseCoopers Oy has notified the company that **Samuli Perälä, APA**, will act as the responsible auditor. It was resolved that the remuneration for the auditor shall be paid according to invoice approved by the Financial and Audit Committee.

The AGM approved the proposals that the Board of Directors be authorised to decide on the repurchase and on the issuance of Stora Enso R shares. The amount of shares not to exceed a total of 2 000 000 R shares, corresponding to approximately 0.25% of all shares and 0.33% of all R shares.

Decisions by the Board of Directors

At its meeting held after the AGM, Stora Enso's Board of Directors elected Richard Nilsson (chairman), Jorma Eloranta, and Elisabeth Fleuriot as members of the Financial and Audit Committee.

Jorma Eloranta (chairman), Antti Mäkinen and Hans Stråberg were elected members of the Remuneration Committee.

Christiane Kuehne (chairman), Hock Goh and Göran Sandberg were elected members of the Sustainability and Ethics Committee.

Share capital and shareholdings

During the first quarter of 2019, the conversions of 53 236 A shares into R shares were recorded in the Finnish trade register.

On 31 March 2019, Stora Enso had 176 259 136 A shares and 612 360 851 R shares in issue. The company did not hold its own shares. The total number of Stora Enso shares in issue was 788 619 987 and the total number votes at least 237 495 221.

Events after the period

On 15 April, the conversion of 300 A shares into R shares was recorded in the Finnish trade register.

All figures in this Interim Report have been rounded to the nearest million, unless otherwise stated. Therefore, percentages and figures in this report may not add up precisely to the totals presented and may vary from previously published financial information.

This report has been prepared in Finnish, English and Swedish. If there are any variations in the content between the versions, the English version shall govern. This report is unaudited.

Helsinki, 25 April 2019
Stora Enso Oyj
Board of Directors

Financials

Basis of Preparation

This unaudited interim financial report has been prepared in accordance with the accounting policies set out in International Accounting Standard 34 on Interim Financial Reporting and in the Group's Financial Report for 2018 with the exception of new and amended standards applied to the annual periods beginning on 1 January 2019.

All figures in this Interim Report have been rounded to the nearest million, unless otherwise stated. Therefore, percentages and figures in this report may not add up precisely to the totals presented and may vary from previously published financial information.

Non-IFRS measures

The Group's key non-IFRS performance metric is operational EBIT, which is used to evaluate the performance of its operating segments and to steer allocation of resources to them. Operational EBIT comprises the operating profit excluding items affecting comparability (IAC) and fair valuations from the segments and Stora Enso's share of the operating profit of equity accounted investments (EAI), also excluding items affecting comparability and fair valuations.

Items affecting comparability are exceptional transactions that are not related to recurring business operations. The most common items affecting comparability are capital gains, additional write-downs or reversals of write-downs, provisions for planned restructuring and penalties. Items affecting comparability are normally disclosed individually if they exceed one cent per share.

Fair valuations and non-operational items include CO₂ emission rights, valuations of biological assets and the Group's share of income tax and net financial items of EAI. Until the end of 2018, fair valuations and non-operational items also included equity incentive schemes and related hedges. The previous periods have not been restated due to immateriality.

Cash flow from operations (non-IFRS) is a Group specific way to present operative cash flow starting from operational EBITDA instead of operating profit.

Cash flow after investing activities (non-IFRS) is calculated as follows: cash flow from operations (non-IFRS) excluding cash spent on intangible assets, property, plant and equipment, and biological assets and acquisitions of EAls.

The full list of the non-IFRS measures is presented at the end of this report.

The following new and amended standards are applied to the annual periods beginning on 1 January 2019

Stora Enso has applied the following new and amended standards from 1 January 2019:

- **IFRS 16 Leases.** The new leasing standard replaced the guidance in IAS 17 and related interpretations and is a significant change in accounting by lessees in particular. IFRS 16 requires lessees to recognize a lease liability reflecting future lease payments and a right-of-use (ROU) asset for virtually all lease contracts. The distinction between operating and finance lease is removed for lessees. Before transition to IFRS 16, the Group had mainly contracts classified as operating leases, which were not capitalised and Stora Enso did not have any material finance lease contracts in effect at the end of 2018. Stora Enso is mainly acting as a lessee and does not have any material lease agreements where it would act as a lessor.

In accordance IFRS 16, at inception of a contract, the Group assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The change in lease definition mainly relates to the concept of control and amendment in lease definition have no material effect to the Group.

Stora Enso adopted IFRS 16 on 1 January 2019, using the modified retrospective approach and therefore the comparative information will not be restated and continues to be reported under IAS 17 and IFRIC 4. Effect of initial application of IFRS 16 is recognised in balance sheet at 1 January 2019. At transition, lease liabilities are measured at the present value of the remaining lease payments, discounted at the Group's incremental borrowing rate. ROU assets are measured an amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments. The Group allocates the consideration in the contract to each lease component and will separate non-lease components if these are identifiable.

ROU assets are initially measured at cost, which comprises the initial amount of the lease liability adjusted mainly for lease payments made at or before the commencement date. The ROU assets are subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the lease term or the end of the useful life of the ROU asset. In addition, the ROU asset is adjusted for certain remeasurements of the lease liability. ROU assets are tested for impairment in accordance with IAS 36 Impairment of Assets.

Lease liabilities are initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the Group's incremental borrowing rate. The lease term applied corresponds to the non-cancellable period except in cases where the Group is reasonably certain to exercise renewal option or prolong the contract. The lease liabilities are measured at amortised cost using the effective interest method. Lease liabilities are remeasured mainly when there is a change in future lease payments arising from a change in an index or rate, or if there is a change in the Group's assessment whether it will exercise an extension option. When lease liability is remeasured, a corresponding adjustment is generally made to the carrying amount of the ROU asset.

The Group has elected not to recognise ROU assets and lease liabilities for short-term leases that have a lease term of 12 months or less and leases of low value assets. The Group has also applied the exemption not to recognise contracts which are ending in 2019. The Group has defined low value asset exemption to include leases in which the underlying asset is not material to Stora Enso. The assessment of whether the underlying asset is material and is within the scope or excluded from the recognition requirements of IFRS 16 is based on the concept of materiality in the Conceptual Framework and IAS 1. Leases of low value assets are mainly including IT and office equipment, certain vehicles and machinery and other low value items. The Group recognises the lease payments associated with these leases as an expense on a straight-line basis over the lease term. In addition the Group has applied hindsight in determination of lease term if lease contract includes extension options.

On transition to IFRS 16, leases previously classified as operating leases under IAS 17 resulted in the recognition of ROU assets and lease liabilities. It also resulted in decrease in operative expenses and an increase in depreciation charges and interest expenses. Under IFRS 16, cash paid for interest portion of lease liability is presented as part of operating activities and cash payments for the principal portion of lease liability is presented as part of financing activities. The adoption of IFRS 16 does not have an impact on the total net cash flow. Stora Enso's most material lease agreements capitalised at the implementation consist of land leases (~55%), operative machinery and equipment (~30%) and properties (~15%).

Undiscounted operating lease commitments at the end of 2018 were EUR 731 million. On transition to IFRS 16, the Group recognised an additional EUR 525 million of lease liabilities. No adjustment to the opening balance of retained earnings has been made due to IFRS 16 transition. The weighted average discount rate was 4.1%.

EUR million	1 Jan 2019
Operating lease commitments at 31 December 2018	731
Discounted using the incremental borrowing rates at 1 January 2019	544
Finance lease liabilities recognised as at 31 December 2018	1
Short term leases	-9
Leases of low-value assets	-16
Other*	5
Lease liabilities recognised at 1 January 2019	526
Finance lease liabilities recognised as at 31 December 2018	-1
Additional lease liabilities as a result of the initial application of IFRS 16	525

* Lease period adjustments (e.g. extension options), exclusion of non-lease components and variable rents not included in the measurement of the lease liability

As at 1 January 2019, the Group recognised an additional EUR 530 million of ROU assets. Amount is including prepaid expenses of EUR 5 million, presented as accrued expenses in balance sheet before transition and reclassified to ROU assets at IFRS 16 implementation. In addition certain land use contracts, amounting to EUR 80 million, before IFRS 16 transition accounted as intangible assets were classified on transition to IFRS 16 as leases. All the liabilities related to the arrangements have already been settled in previous periods and therefore there is no effect on the lease liability or income statement.

- Other amended IFRS standards and interpretations do not have material effect on the Group.

Future standard changes endorsed by the EU but not yet effective in 2019

- No future standard changes endorsed by the EU.

Condensed consolidated income statement

EUR million	Q1/19	Q1/18	Q4/18	2018
Sales	2 635	2 579	2 657	10 486
Other operating income	36	18	27	92
Change in inventories of finished goods and WIP	41	71	-2	125
Materials and services	-1 577	-1 498	-1 602	-6 157
Freight and sales commissions	-230	-233	-232	-932
Personnel expenses	-334	-325	-339	-1 330
Other operating expenses	-114	-125	-133	-526
Share of results of equity accounted investments	5	3	112	181
Change in net value of biological assets	-13	-14	-17	-68
Depreciation, amortisation and impairment charges	-136	-121	-114	-479
Operating Profit	313	355	356	1 390
Net financial items	-31	-22	-41	-180
Profit before Tax	282	333	315	1 210
Income tax	-56	-60	-16	-221
Net Profit for the Period	226	273	299	988
Attributable to:				
Owners of the Parent	232	274	304	1 013
Non-controlling interests	-6	-1	-5	-24
Net Profit for the Period	226	273	299	988
Earnings per Share				
Basic earnings per share, EUR	0.29	0.35	0.39	1.28
Diluted earnings per share, EUR	0.29	0.35	0.39	1.28

Consolidated statement of comprehensive income

EUR million	Q1/19	Q1/18	Q4/18	2018
Net profit/loss for the period	226	273	299	988
Other Comprehensive Income (OCI)				
Items that will Not be Reclassified to Profit and Loss				
Equity instruments at fair value through other comprehensive income	-19	-8	-58	97
Actuarial gains and losses on defined benefit plans	0	0	-20	-24
Income tax relating to items that will not be reclassified	0	-1	6	5
	-19	-9	-73	78
Items that may be Reclassified Subsequently to Profit and Loss				
Share of OCI of EAls that may be reclassified	0	1	0	4
Currency translation movements on equity net investments (CTA)	27	-110	33	-36
Currency translation movements on non-controlling interests	1	0	0	0
Net investment hedges	-6	8	-3	-14
Cash flow hedges	-34	-35	21	-24
Cost of hedging - time value of options	-1	0	-1	-2
Non-controlling interests' share of cash flow hedges	1	0	-1	-2
Income tax relating to items that may be reclassified	9	6	-4	7
	-4	-130	46	-68
Total Comprehensive Income	203	134	272	999
Attributable to:				
Owners of the Parent	208	135	277	1 025
Non-controlling interests	-5	-1	-6	-27
Total Comprehensive Income	203	134	272	999

CTA = Cumulative Translation Adjustment

OCI = Other Comprehensive Income

EAI = Equity Accounted Investments

Condensed consolidated statement of financial position

EUR million		31 Mar 2019	31 Dec 2018	31 Mar 2018
Assets				
Goodwill	O	244	243	237
Other intangible assets	O	179	254	243
Property, plant and equipment	O	5 225	5 234	5 155
Right-of-use assets	O	606	0	0
		6 254	5 731	5 635
Biological assets	O	474	457	446
Emission rights	O	71	26	28
Equity accounted investments	O	1 707	1 729	1 536
Listed securities	I	13	13	22
Unlisted securities	O	398	422	308
Non-current interest-bearing receivables	I	55	54	55
Deferred tax assets	T	96	120	120
Other non-current assets	O	45	48	50
Non-current Assets		9 112	8 601	8 200
Inventories	O	1 666	1 567	1 450
Tax receivables	T	11	9	12
Operative receivables	O	1 569	1 487	1 396
Interest-bearing receivables	I	28	55	78
Cash and cash equivalents	I	1 223	1 130	687
Current Assets		4 496	4 248	3 623
Total Assets		13 608	12 849	11 823
Equity and Liabilities				
Owners of the Parent		6 522	6 714	6 142
Non-controlling Interests		13	18	46
Total Equity		6 535	6 732	6 188
Post-employment benefit provisions	O	393	401	367
Other provisions	O	100	101	105
Deferred tax liabilities	T	157	168	147
Non-current interest-bearing liabilities	I	3 296	2 265	2 067
Other non-current operative liabilities	O	34	34	34
Non-current Liabilities		3 980	2 970	2 720
Current portion of non-current debt	I	320	403	413
Interest-bearing liabilities	I	793	675	584
Bank overdrafts	I	2	1	4
Other provisions	O	13	16	20
Other operative liabilities	O	1 892	1 960	1 842
Tax liabilities	T	73	92	52
Current Liabilities		3 093	3 147	2 915
Total Liabilities		7 073	6 117	5 635
Total Equity and Liabilities		13 608	12 849	11 823

Items designated with "O" comprise Operating Capital

Items designated with "I" comprise Net Interest-bearing Liabilities

Items designated with "T" comprise Net Tax Liabilities

Condensed consolidated statement of cash flows

EUR million	Q1/19	Q1/18
Cash Flow from Operating Activities		
Operating profit	313	355
Adjustments for non-cash items	146	134
Change in net working capital	-236	-260
Cash Flow Generated by Operations	223	229
Net financial items paid	-46	-39
Income taxes paid, net	-53	-64
Net Cash Provided by Operating Activities	124	126
Cash Flow from Investing Activities		
Acquisitions of equity accounted investments	-6	0
Proceeds from disposal of subsidiary shares and business operations, net of disposed cash	0	9
Proceeds from disposal of unlisted securities	4	0
Proceeds and advances from disposal of intangible assets and property, plant and equipment	3	2
Capital expenditure	-123	-116
Proceeds from non-current receivables, net	-2	-1
Net Cash Used in Investing Activities	-125	-106
Cash Flow from Financing Activities		
Proceeds from issue of new long-term debt	627	302
Repayment of long-term debt and lease liabilities	-278	-212
Change in short-term borrowings	128	-29
Dividends paid	-394	0
Purchase of own shares ¹	-3	-5
Net Cash Provided by Financing Activities	80	56
Net Change in Cash and Cash Equivalents	78	76
Translation adjustment	15	4
Net cash and cash equivalents at the beginning of period	1 128	603
Net Cash and Cash Equivalents at Period End	1 221	683
Cash and Cash Equivalents at Period End	1 223	687
Bank Overdrafts at Period End	-2	-4
Net Cash and Cash Equivalents at Period End	1 221	683
Disposal of group companies and business operations		
Other intangible assets, property, plant and equipment and biological assets	0	6
Net Assets in Divested Companies	0	6
Gain on sale, excluding CTA release and transaction costs	0	3
Total Disposal Consideration	0	9
Cash part of consideration	0	9
Total Disposal Consideration	0	9
Cash Received Regarding Previous Year Disposals	0	0

¹ Own shares purchased for the Group's share award programme. The Group did not hold any of its own shares at 31 March 2019.

Statement of changes in equity

EUR million	Fair Valuation Reserve														Total
	Share Capital	Share Premium and Reserve fund	Invested Non-Restricted Equity Fund	Treasury Shares	Step Acquisition Revaluation Surplus	Equity investments through OCI	Available-for-Sale Investments	Cash Flow Hedges	OCI of Equity Accounted Investments	CTA and Net Investment Hedges	Retained Earnings	Attributable to Owners of the Parent	Non-controlling Interests		
Balance at 31 December 2017	1 342	77	633	-	4	-	205	15	-14	-288	4 034	6 008	47	6 055	
Adoption of IFRS 2 and IFRS 9	-	-	-	-	-	205	-205	-	-	-	8	8	-	8	
Balance at 1 January 2018	1 342	77	633	-	4	205	-	15	-14	-288	4 042	6 016	47	6 063	
Profit/loss for the period	-	-	-	-	-	-	-	-	-	-	274	274	-1	273	
OCI before tax	-	-	-	-	-	-8	-	-35	1	-102	-	-144	-	-144	
Income tax relating to components of OCI	-	-	-	-	-	-1	-	8	-	-2	-	5	-	5	
Total Comprehensive Income	-	-	-	-	-	-9	-	-27	1	-104	274	135	-1	134	
Dividend	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Purchase of treasury shares	-	-	-	-5	-	-	-	-	-	-	-	-5	-	-5	
Share-based payments	-	-	-	5	-	-	-	-	-	-	-9	-4	-	-4	
Balance at 31 March 2018	1 342	77	633	-	4	196	-	-12	-13	-392	4 307	6 142	46	6 188	
Profit/loss for the period	-	-	-	-	-	-	-	-	-	-	739	739	-23	715	
OCI before tax	-	-	-	-	-	105	-	9	3	52	-24	144	-2	142	
Income tax relating to components of OCI	-	-	-	-	-	2	-	-3	-	5	4	8	-	8	
Total Comprehensive Income	-	-	-	-	-	107	-	5	3	57	719	891	-26	865	
Dividend	-	-	-	-	-	-	-	-	-	-	-323	-323	-2	-326	
Acquisitions and Disposals	-	-	-	-	-	-	-	-	-	-	-	-	-2	-2	
NCI buy-out	-	-	-	-	-	-	-	-	-	-	-2	-2	2	-	
Purchase of treasury shares	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Share-based payments	-	-	-	-	-	-	-	-	-	-	6	6	-	6	
Balance at 31 December 2018	1 342	77	633	-	4	304	-	-7	-11	-335	4 706	6 714	18	6 732	
Profit/loss for the period	-	-	-	-	-	-	-	-	-	-	232	232	-6	226	
OCI before tax	-	-	-	-	-	-19	-	-34	-	21	-	-32	1	-31	
Income tax relating to components of OCI	-	-	-	-	-	-	-	7	-	1	-	8	-	8	
Total Comprehensive Income	-	-	-	-	-	-19	-	-27	-	22	232	208	-5	203	
Dividend	-	-	-	-	-	-	-	-	-	-	-394	-394	-	-394	
Purchase of treasury shares	-	-	-	-3	-	-	-	-	-	-	-	-3	-	-3	
Share-based payments	-	-	-	3	-	-	-	-	-	-	-6	-2	-	-2	
Balance at 31 March 2019	1 342	77	633	-	4	286	-	-34	-11	-313	4 538	6 522	13	6 535	

CTA = Cumulative Translation Adjustment

OCI = Other Comprehensive Income

NCI = Non-controlling Interests

Goodwill, other intangible assets, property, plant and equipment, right-of-use assets and biological assets

EUR million	Q1/19	Q1/18	2018
Carrying value at 1 January	6 187	6 224	6 224
Additions in right-of-use assets due to adoption of IFRS 16	530	-	-
Additions in tangible and intangible assets	60	64	491
Additions in right-of-use assets	4	-	-
Additions in biological assets	14	18	83
Costs related to growth of biological assets	-13	-13	-66
Acquisition of subsidiary companies	0	0	5
Disposals	-2	-8	-5
Disposals of subsidiary companies	0	0	-37
Depreciation and impairment	-136	-121	-479
Fair valuation of biological assets	0	-1	-2
Translation difference and other	83	-82	-26
Statement of Financial Position Total	6 728	6 081	6 187

Borrowings

EUR million	31 Mar 2019	31 Mar 2018	31 Dec 2018
Bond loans	1 929	1 502	1 523
Loans from credit institutions	1 129	943	1 140
Lease liabilities	526	0	0
Finance lease liabilities	0	29	1
Derivative financial liabilities	28	0	0
Other non-current liabilities	5	6	4
Non-current interest bearing liabilities including current portion	3 617	2 480	2 668
Short-term borrowings	708	488	566
Interest payable	31	27	40
Derivative financial liabilities	54	69	68
Bank overdrafts	2	4	1
Total Interest-bearing Liabilities	4 412	3 068	3 344

EUR million	Q1/19	Q1/18	2018
Carrying value at 1 January	3 344	3 016	3 016
Additions in lease liabilities due to adoption of IFRS 16	525	0	0
Proceeds of new long-term debt	627	302	578
Additions in lease liabilities	4	0	0
Repayment of long-term debt	-256	-212	-358
Repayment of lease liabilities	-22	0	0
Change in short-term borrowings and interest payable	134	-45	46
Change in derivative financial liabilities	13	33	32
Translation differences and other	43	-26	31
Total Interest-bearing Liabilities	4 412	3 068	3 344

Commitments and contingencies

EUR million	31 Mar 2019	31 Dec 2018	31 Mar 2018
On Own Behalf			
Mortgages	2	2	2
Operating leases, in next 12 months	0	100	77
Operating leases, after next 12 months	0	631	645
Other commitments	6	6	6
On Behalf of Equity Accounted Investments			
Guarantees	4	4	4
On Behalf of Others			
Guarantees	22	23	25
Other commitments	13	13	14
Total	47	779	773
Mortgages	2	2	2
Guarantees	26	27	29
Operating leases	0	731	722
Other commitments	19	19	20
Total	47	779	773

Operating lease obligations have been reported on balance sheet in accordance with requirements of IFRS 16 Leases since 1 January 2019.

Capital Commitments

EUR million	31 Mar 2019	31 Dec 2018	31 Mar 2018
Total	105	111	142

The Group's direct capital expenditure contracts include the Group's share of direct capital expenditure contracts in joint operations.

Sales by segment – total

EUR million	Q1/19	2018	Q4/18	Q3/18	Q2/18	Q1/18
Consumer Board	634	2 622	637	648	691	646
Packaging Solutions	338	1 344	352	330	329	333
Biomaterials	398	1 635	415	413	413	394
Wood Products	403	1 622	399	400	430	393
Paper	760	3 066	761	779	754	772
Other	922	3 425	913	831	844	838
Inter-segment sales	-821	-3 229	-820	-815	-797	-797
Total	2 635	10 486	2 657	2 585	2 664	2 579

Sales by segment – external

EUR million	Q1/19	2018	Q4/18	Q3/18	Q2/18	Q1/18
Consumer Board	630	2 608	634	645	688	642
Packaging Solutions	332	1 318	346	323	323	326
Biomaterials	318	1 233	325	305	319	284
Wood Products	370	1 497	367	366	398	366
Paper	745	3 004	747	764	738	756
Other	239	825	239	183	198	206
Total	2 635	10 486	2 657	2 585	2 664	2 579

Disaggregation of revenue

EUR million	Q1/19	2018	Q4/18	Q3/18	Q2/18	Q1/18
Product sales	2 608	10 346	2 623	2 550	2 626	2 547
Service sales	27	140	34	35	38	32
Total	2 635	10 486	2 657	2 585	2 664	2 579

Sales comprise mainly sales of products and are typically recognised at a point in time when Stora Enso transfers control of products to a customer.

Product and Service sales by segment

EUR million		Q1/19	2018	Q4/18	Q3/18	Q2/18	Q1/18
Consumer Board	Product sales	631	2 611	634	645	688	643
	Service sales	3	11	3	3	3	3
Packaging Solutions	Product sales	338	1 340	351	329	328	332
	Service sales	1	4	1	1	1	1
Biomaterials	Product sales	391	1 610	410	407	407	387
	Service sales	7	25	5	6	6	7
Wood Products	Product sales	400	1 619	398	399	429	392
	Service sales	3	3	1	0	1	1
Paper	Product sales	757	3 043	755	773	748	767
	Service sales	3	23	6	5	7	5
Other	Product sales	690	2 430	665	579	587	599
	Service sales	232	995	248	252	257	239
Inter-segment sales	Product sales	-599	-2 307	-590	-583	-562	-573
	Service sales	-223	-922	-229	-232	-236	-224
Total		2 635	10 486	2 657	2 585	2 664	2 579

Operational EBIT by segment

EUR million	Q1/19	2018	Q4/18	Q3/18	Q2/18	Q1/18
Consumer Board	54	231	24	50	65	91
Packaging Solutions	51	245	59	68	57	61
Biomaterials	103	427	91	125	109	102
Wood Products	29	165	42	48	47	29
Paper	69	234	45	65	54	69
Other	17	23	9	2	-5	17
Operational EBIT	324	1 325	271	358	327	369
Fair valuations and non-operational items ¹	-7	45	37	5	17	-14
Items affecting comparability	-4	20	47	0	-28	0
Operating Profit (IFRS)	313	1 390	356	363	317	355
Net financial items	-31	-180	-41	-58	-60	-22
Profit before Tax	282	1 210	315	305	257	333
Income tax expense	-56	-221	-16	-101	-44	-60
Net Profit	226	988	299	204	213	273

¹ Fair valuations and non-operational items include CO₂ emission rights, valuations of biological assets, and the Group's share of income tax and net financial items of EAI. Until the end of 2018, fair valuations and non-operational items also included equity incentive schemes and related hedges. The previous periods have not been restated due to immateriality.

Items affecting comparability (IAC), fair valuations and non-operational items

EUR million	Q1/19	2018	Q4/18	Q3/18	Q2/18	Q1/18
Impairments and reversals of intangible assets, PPE and biological assets	-3	0	0	0	0	0
Restructuring costs excluding fixed asset impairments	-1	0	0	0	0	0
Disposals	0	20	47	0	-28	0
Other	0	0	0	0	0	0
Total IAC on Operating Profit	-4	20	47	0	-28	0
Fair valuations and non-operational items	-7	45	37	5	17	-14
Total	-11	65	84	5	-11	-14

Items affecting comparability (IAC) by segment

EUR million	Q1/19	2018	Q4/18	Q3/18	Q2/18	Q1/18
Consumer Board	-4	0	0	0	0	0
Packaging Solutions	0	0	0	0	0	0
Biomaterials	0	0	0	0	0	0
Wood Products	0	0	0	0	0	0
Paper	0	0	0	0	0	0
Other	0	20	47	0	-28	0
IAC on Operating Profit	-4	20	47	0	-28	0
IAC on tax	1	-27	0	-27	0	0
IAC on Net Profit	-3	-8	47	-27	-28	0
Attributable to:						
Owners of the Parent	-3	-8	47	-27	-28	0
Non-controlling interests	0	0	0	0	0	0
IAC on Net Profit	-3	-8	47	-27	-28	0

Fair valuations and non-operational items¹ by segment

EUR million	Q1/19	2018	Q4/18	Q3/18	Q2/18	Q1/18
Consumer Board	0	-1	0	0	0	-1
Packaging Solutions	0	-1	0	0	0	-1
Biomaterials	0	-3	3	-2	-3	-1
Wood Products	0	-1	0	0	0	-1
Paper	5	0	-4	-1	4	1
Other	-12	51	38	7	17	-11
FV and Non-operational Items on Operating Profit	-7	45	37	5	17	-14

¹ Fair valuations and non-operational items include CO₂ emission rights, valuations of biological assets, and the Group's share of income tax and net financial items of EAI. Until the end of 2018, fair valuations and non-operational items also included equity incentive schemes and related hedges. The previous periods have not been restated due to immateriality.

Operating profit/loss by segment

EUR million	Q1/19	2018	Q4/18	Q3/18	Q2/18	Q1/18
Consumer Board	50	230	25	50	65	90
Packaging Solutions	51	244	59	68	56	60
Biomaterials	103	425	94	123	106	101
Wood Products	29	164	42	48	47	28
Paper	74	234	41	65	58	70
Other	5	93	95	9	-16	6
Operating Profit (IFRS)	313	1 390	356	363	317	355
Net financial items	-31	-180	-41	-58	-60	-22
Profit before Tax	282	1 210	315	305	257	333
Income tax expense	-56	-221	-16	-101	-44	-60
Net Profit	226	988	299	204	213	273

Key exchange rates for the euro

One Euro is	Closing Rate		Average Rate	
	31 Mar 2019	31 Dec 2018	31 Mar 2019	31 Dec 2018
SEK	10.3980	10.2548	10.4223	10.2567
USD	1.1235	1.1450	1.1357	1.1815
GBP	0.8583	0.8945	0.8723	0.8847

Transaction risk and hedges in main currencies as at 31 March 2019

EUR million	USD	SEK	GBP
Estimated annual operating cash flow exposure	1 620	-1 010	350
Transaction hedges as at 31 March 2019	-950	630	-190
Hedging percentage as at 31 March 2019 for the next 12 months	59%	62%	54%

For the next 13–16 months, 18% of the estimated exposure in SEK is hedged.

Changes in exchange rates on Operational EBIT

Operational EBIT: Currency strengthening of +10%	EUR million
USD	162
SEK	-101
GBP	35

The sensitivity is based on the estimated net operating cash flow for the next 12 months. The calculation does not take into account currency hedges, and it assumes that no changes occur other than exchange rate movement in a currency. A currency weakening would have the opposite impact.

Fair Values of Financial Instruments

The Group uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique:

- Level 1: quoted (unadjusted) prices in active markets for identical assets or liabilities;
- Level 2: other techniques, for which all inputs that have a significant effect on the recorded fair value are observable, either directly or indirectly;
- Level 3: techniques which use inputs that have a significant effect on the recorded fair values that are not based on observable market data.

The valuation techniques are described in more detail in the Group's Financial Report.

Carrying amounts of financial assets and liabilities by measurement and fair value categories: 31 March 2019

EUR million	Amortised cost	Fair value through OCI	Fair value through Income Statement	Hedge accounted derivatives	Total carrying amount	Fair value
Financial assets						
Listed securities	-	13	-	-	13	13
Unlisted securities	-	394	3	-	398	398
Non-current interest-bearing receivables	54	-	-	1	55	55
Trade and other operative receivables	1 160	61	-	-	1 221	1 221
Short-term interest-bearing receivables	3	-	3	22	28	28
Cash and cash equivalents	1 223	-	-	-	1 223	1 223
Total	2 441	468	6	22	2 938	2 938

EUR million	Amortised cost	Fair value through Income Statement	Hedge accounted derivatives	Total carrying amount	Fair value
Financial liabilities					
Non-current interest-bearing liabilities	3 269	-	28	3 296	3 613
Current portion of non-current debt	320	-	-	320	320
Short-term interest-bearing liabilities	737	5	51	793	793
Trade and other operative payables	1 564	21	-	1 585	1 585
Bank overdrafts	2	-	-	2	2
Total	5 892	26	78	5 997	6 313

The following items are measured at fair value on a recurring basis.

EUR million	Level 1	Level 2	Level 3	Total
Listed securities	13	-	-	13
Unlisted securities	-	-	398	398
Trade and other operative receivables	-	61	-	61
Derivative financial assets	-	26	-	26
Total financial assets	13	87	398	498
Trade and other operative liabilities	-	-	21	21
Derivative financial liabilities	-	84	-	84
Total financial liabilities	-	84	21	105

Carrying amounts of financial assets and liabilities by measurement and fair value categories: 31 December 2018

EUR million	Amortised cost	Fair value through OCI	Fair value through Income Statement	Hedge accounted derivatives	Total carrying amount	Fair value
Financial assets						
Listed securities	-	13	-	-	13	13
Unlisted securities	-	415	8	-	422	422
Non-current interest-bearing receivables	54	-	-	-	54	54
Trade and other operative receivables	1 092	44	-	-	1 136	1 136
Short-term interest-bearing receivables	1	-	5	49	55	55
Cash and cash equivalents	1 130	-	-	-	1 130	1 130
Total	2 277	472	13	49	2 811	2 811

EUR million	Amortised cost	Fair value through Income Statement	Hedge accounted derivatives	Total carrying amount	Fair value
Financial liabilities					
Non-current interest-bearing liabilities	2 265	-	-	2 265	2 541
Current portion of non-current debt	403	-	-	403	403
Short-term interest-bearing liabilities	604	7	63	675	675
Trade and other operative payables	1 627	21	-	1 648	1 648
Bank overdrafts	1	-	-	1	1
Total	4 901	28	63	4 992	5 268

The following items are measured at fair value on a recurring basis.

EUR million	Level 1	Level 2	Level 3	Total
Listed securities	13	-	-	13
Unlisted securities	-	-	422	422
Trade and other operative receivables	-	44	-	44
Derivative financial assets	-	54	-	54
Total financial assets	13	98	422	533
Trade and other operative liabilities	-	-	21	21
Derivative financial liabilities	-	70	-	70
Total financial liabilities	-	70	21	91

Reconciliation of level 3 fair value measurement of financial assets and liabilities: 31 March 2019

EUR million	Q1/19	2018	Q1/18
Financial assets			
Opening balance at 1 January	422	318	318
Gains/losses recognised in income statement	-1	-2	0
Gains/losses recognised in other comprehensive income	-19	104	-10
Additions	0	3	0
Disposals	-5	-1	0
Closing Balance	398	422	308

EUR million	Q1/19	2018	Q1/18
Financial liabilities			
Opening balance at 1 January	21	20	20
Gains/losses recognised in income statement	0	1	-1
Closing Balance	21	21	19

Level 3 Financial Assets

The level 3 financial assets consist mainly of PVO shares for which the valuation method is described in more detail in the Annual Report. The valuation is most sensitive to changes in electricity prices and discount rates. The discount rate of 3.82% used in the valuation model is determined using the weighted average cost of capital method. A +/- 5% change in the electricity price used in the DCF would change the valuation by EUR +63 million and -40 million, respectively. A +/- 1%-point change in the discount rate would change the valuation by EUR -40 million and +125 million, respectively.

Stora Enso shares

Trading volume

	Helsinki		Stockholm	
	A share	R share	A share	R share
January	209 033	52 229 432	195 422	9 992 362
February	103 550	54 188 593	126 910	9 944 695
March	108 997	61 293 195	155 274	14 457 361
Total	421 580	167 711 220	477 606	34 394 418

Closing price

	Helsinki, EUR		Stockholm, SEK	
	A share	R share	A share	R share
January	12.75	11.70	131.50	121.40
February	12.30	11.79	129.50	124.20
March	12.55	10.90	132.50	114.00

Average number of shares

Million	Q1/19	Q1/18	Q4/18	2018
Periodic	788.6	788.6	788.6	788.6
Cumulative	788.6	788.6	788.6	788.6
Cumulative, diluted	789.7	789.9	789.7	789.9

Calculation of key figures

Operational return on capital employed, operational ROCE (%)	100 x $\frac{\text{Annualised operational EBIT}}{\text{Capital employed}^{1,2}}$
Operational return on operating capital, operational ROOC (%)	100 x $\frac{\text{Annualised operational EBIT}}{\text{Operating capital}^2}$
Return on equity, ROE (%)	100 x $\frac{\text{Net profit/loss for the period}}{\text{Total equity}^2}$
Net interest-bearing liabilities	Interest-bearing liabilities – interest-bearing assets
Net debt/equity ratio	$\frac{\text{Net interest-bearing liabilities}}{\text{Equity}^3}$
Earnings per share (EPS)	$\frac{\text{Net profit/loss for the period}^3}{\text{Average number of shares}}$
Operational EBIT	Operating profit/loss excluding items affecting comparability (IAC) and fair valuations of the segments and Stora Enso's share of operating profit/loss excluding IAC and fair valuations of its equity accounted investments (EAI)
Operational EBITDA	Operating profit/loss excluding operational decrease in the value of biological assets, fixed asset depreciation and impairment, IACs and fair valuations. The definition includes the respective items of subsidiaries, joint arrangements and equity accounted investments.
Net debt/last 12 months' operational EBITDA ratio	$\frac{\text{Net interest-bearing liabilities}}{\text{LTM operational EBITDA}}$
Fixed costs	Maintenance, personnel and other administration type of costs, excluding IAC and fair valuations
Last 12 months (LTM)	12 months prior to the end of reporting period
TRI	Total recordable incident rate = number of incidents per one million hours worked

¹ Capital employed = Operating capital – Net tax liabilities

² Average for the financial period

³ Attributable to the owners of the Parent

List of non-IFRS measures

Operational EBITDA	Depreciation and impairment charges excl. IAC
Operational EBITDA margin	Operational ROCE
Operational EBIT	Earnings per share (EPS), excl. IAC
Operational EBIT margin	Net debt/last 12 months' operational EBITDA ratio
Profit before tax excl. IAC	Fixed costs to sales
Capital expenditure	Operational ROOC
Capital expenditure excl. investments in biological assets	Cash flow from operations
Capital employed	Cash flow after investing activities

Contact information

Stora Enso Oyj

P.O.Box 309
FI-00101 Helsinki, Finland
Visiting address: Kanavaranta 1
Tel. +358 2046 131

Stora Enso AB

P.O.Box 70395
SE-107 24 Stockholm, Sweden
Visiting address: World Trade Center
Klarabergsviadukten 70
Tel. +46 1046 46 000

storaenso.com

storaenso.com/investors

For further information, please contact:

Seppo Parvi, CFO, tel. +358 2046 21205
Ulla Paajanen, SVP, Investor Relations, tel. +358 40 763 8767
Ulrika Lilja, EVP, Communications, tel. +46 72 221 9228

Stora Enso's Q2 results 2019 will be published on

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Part of the bioeconomy, Stora Enso is a leading global provider of renewable solutions in packaging, biomaterials, wooden constructions and paper. We believe that everything that is made from fossil-based materials today can be made from a tree tomorrow. Stora Enso has some 26 000 employees in over 30 countries. Our sales in 2018 were EUR 10.5 billion. Stora Enso shares are listed on Nasdaq Helsinki Oy (STEA V, STERV) and Nasdaq Stockholm AB (STE A, STE R). storaenso.com/investors

It should be noted that Stora Enso and its business are exposed to various risks and uncertainties and certain statements herein which are not historical facts, including, without limitation those regarding expectations for market growth and developments; expectations for growth and profitability; and statements preceded by "believes", "expects", "anticipates", "foresees", or similar expressions, are forward-looking statements. Since these statements are based on current plans, estimates and projections, they involve risks and uncertainties, which may cause actual results to materially differ from those expressed in such forward-looking statements. Such factors include, but are not limited to: (1) operating factors such as continued success of manufacturing activities and the achievement of efficiencies therein, continued success of product development, acceptance of new products or services by the Group's targeted customers, success of the existing and future collaboration arrangements, changes in business strategy or development plans or targets, changes in the degree of protection created by the Group's patents and other intellectual property rights, the availability of capital on acceptable terms; (2) industry conditions, such as strength of product demand, intensity of competition, prevailing and future global market prices for the Group's products and the pricing pressures thereto, price fluctuations in raw materials, financial condition of the customers and the competitors of the Group, the potential introduction of competing products and technologies by competitors; and (3) general economic conditions, such as rates of economic growth in the Group's principal geographic markets or fluctuations in exchange and interest rates. All statements are based on management's best assumptions and beliefs in light of the information currently available to it and Stora Enso assumes no obligation to publicly update or revise any forward-looking statement except to the extent legally required.