

Stora Enso

Full year financial results

January–December 2020

Q4



storaenso

THE RENEWABLE MATERIALS COMPANY

Steady performance as a result of our own actions

Dividend proposal EUR 0.30 per share

Q4/2020 (compared with Q4/2019)

- Sales decreased by 10.7% to EUR 2 154 (2 411) million, due to structural changes, lower prices and volumes. Sales excluding Paper decreased by 2.5%.
- Operational EBIT was EUR 118 (124) million, lower sales were mitigated by efficient cost management. Operational EBIT excluding Paper increased to EUR 122 (80) million.
- Operational EBIT margin increased to 5.5% (5.1%). Excluding Paper, the operational EBIT margin was 7.3% (4.6%).
- Operating profit (IFRS) decreased to EUR 289 (680) million, mainly due to the change in biological asset valuation.
- EPS was EUR 0.30 (0.66) and EPS excl. fair valuations (FV) was EUR 0.09 (0.04).
- Items affecting comparability (IAC) amounted to EUR -45 (-32) million, mainly related to the closure of the Virdia operations.
- The value of forest assets, including leased land and Stora Enso's share of Tornator, increased by EUR 1 960 million to EUR 7 314 (5 175) million.
- Cash flow from operations amounted to EUR 436 (725) million. Cash flow after investing activities was EUR 223 (518) million. Cash flow in 2019 was positively affected by an extraordinary dividend and capital repayment of EUR 223 million from Bergvik Skog.
- The net debt to operational EBITDA ratio at 2.3 (2.0) was above the target level of less than 2.0. Net debt was reduced by nearly EUR 300 million.
- Strong liquidity at EUR 2.5 billion, including cash and committed credit facilities.
- Operational ROCE excluding Forest division was 4.6% (5.0%), below the long-term target of more than 13%.

2020 (compared with 2019)

- Sales were EUR 8 553 (10 055) million, mainly due to lower volumes and prices, and structural changes.
- Operational EBIT decreased to EUR 650 (1 003) million, due to lower sales. Operational EBIT excluding Paper was EUR 688 (790) million.

Dividend proposal

- The Board of Directors proposes a dividend of EUR 0.30 per share. In their proposal, the Board considered the Company's solvency and liquidity.
- Stora Enso's policy is to distribute 50% of EPS excl. FV over the cycle. EPS excl. FV in 2020 was EUR 0.45.

Profit protection programme

The EUR 400 million profit protection programme is proceeding well with the target of delivering these savings by the end of 2021.

Main events

- The conversion of Oulu Mill from coated fine paper to kraftliner is finalised and the mill is in a start-up phase.
- A feasibility study is underway regarding a possible expansion of the pulp and board production at Skoghall Mill in Sweden.
- The wood handling capacity at the Imatra Mills in Finland is being modernised with a EUR 80 million investment.
- To support the growth of its lignin business, Stora Enso is investing EUR 14 million in a granulation and packing plant.
- Stora Enso announced the divestment of approximately 5 200 hectares of forest assets in southern Sweden for approximately EUR 90 million. The transaction was closed in January 2021.
- The US-based Virdia operations will be permanently closed during 2021.
- Some of the long-term financial targets were updated to support the focus on growth and value creation.

Preventive Covid-19 actions

The health and safety of Stora Enso's employees is a key priority during the pandemic. Thanks to Stora Enso's proactive approach during Covid-19 thus far, there has been minimal impact on the Group's ability to serve customers and run operations.

In the end of November, a number of Covid-19 infections were detected among contractors working on the Oulu Mill conversion project. Following the infections, Stora Enso further enhanced guidelines to prevent coronavirus infections, tested the entire personnel including contractors, working at the mill and continued the testing as required. The situation is currently under control.

Outlook

Stora Enso resumes an annual outlook even though the uncertainties due to the ongoing pandemic in the global economy are expected to remain in 2021. Provided that the vaccination programmes progress as planned and the virus is contained, there are expectations of economic recovery. Until then, demand for our products remains mixed.

Operational EBIT in 2021 is expected to be higher than the 2020 operational EBIT.

Stora Enso will conclude its EUR 400 million profit protection programme by the end of 2021. The expected fixed and variable cost savings for the year are approximately EUR 80 million. The Group will continue to focus on customer service and cash flow generation in 2021.

The Oulu Mill conversion is estimated to have approximately EUR 20 million negative impact on the Packaging Materials Q1/2021 operational EBIT. The total impact on operational EBIT is forecasted to be approximately EUR 45-55 million negative for the full year

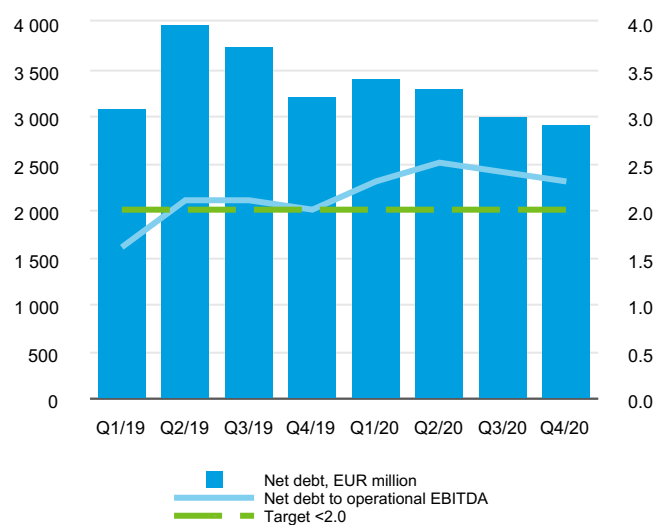
2021. The mill is planned to reach designed capacity by the end of Q2/2021, commercialisation of product portfolio by the end of 2021 and operational EBITDA break-even in Q1/2022.

Total maintenance impact

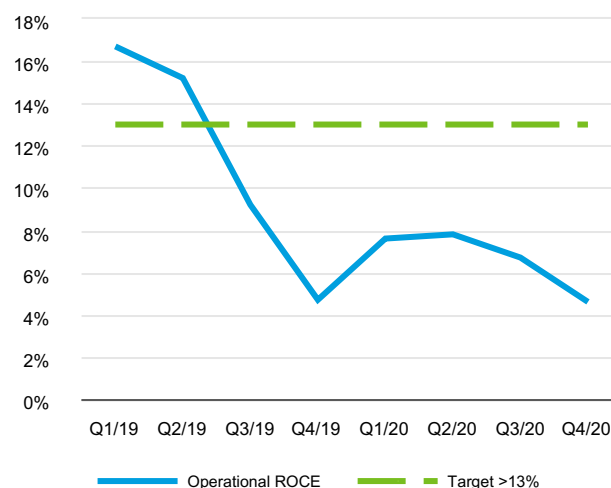
EUR million	Q4/2019	Q1/2020	Q2/2020	Q3/2020	Q4/2020	Q1/2021 ¹
Total maintenance impact	167	98	110	159	161	105

¹ Estimated

Net debt to operational EBITDA



Operational ROCE excl. Forest division



Key figures

EUR million	Q4/20	Q4/19	Change % Q4/20- Q4/19	Q3/20	Change % Q4/20- Q3/20	2020	2019	Change % 2020-2019
Sales	2 154	2 411	-10.7%	2 079	3.6%	8 553	10 055	-14.9%
Operational EBITDA	274	277	-1.3%	330	-17.0%	1 270	1 614	-21.3%
Operational EBITDA margin	12.7%	11.5%		15.9%		14.9%	16.0%	
Operational EBIT	118	124	-5.1%	175	-32.8%	650	1 003	-35.2%
Operational EBIT margin	5.5%	5.1%		8.4%		7.6%	10.0%	
Operating profit (IFRS)	289	680	-57.5%	145	99.1%	922	1 305	-29.3%
Profit before tax excl. IAC and FV	88	90	-2.0%	144	-39.1%	501	835	-40.0%
Profit before tax (IFRS)	260	646	-59.8%	115	126.3%	773	1 137	-32.0%
Net profit for the period (IFRS)	237	519	-54.3%	86	175.0%	617	856	-27.9%
Cash flow from operations	436	725	-39.8%	399	9.5%	1 344	1 991	-32.5%
Cash flow after investing activities	223	518	-57.0%	250	-11.0%	680	1 386	-50.9%
Capital expenditure	303	302	0.2%	156	93.4%	687	656	4.8%
Capital expenditure excluding investments in biological assets	287	276	4.0%	143	100.1%	628	579	8.5%
Depreciation and impairment charges excl. IAC	136	136	0.5%	135	1.2%	544	533	2.2%
Net interest-bearing liabilities	2 921	3 209	-9.0%	3 008	-2.9%	2 921	3 209	-9.0%
Operational return on capital employed (ROCE), %	4.3%	4.7%		6.7%		5.8%	10.3%	
Operational ROCE excl. Forest division	4.6%	5.0%		8.0%		7.0%	12.8%	
Earnings per share (EPS) excl. FV ³ , EUR	0.09	0.04	127.5%	0.12	-22.2%	0.45	0.61	-26.7%
EPS (basic), EUR	0.30	0.66	-53.9%	0.11	173.9%	0.79	1.12	-28.9%
Return on equity (ROE)	11.9%	29.1%		4.8%		7.6%	12.1%	
Net debt/equity ratio	0.33	0.43		0.42		0.33	0.43	
Net debt to last 12 months' operational EBITDA ratio	2.3	2.0		2.4		2.3	2.0	
Fixed costs to sales, %	29.0%	27.5%		26.8%		26.7%	24.3%	
Equity per share, EUR	11.17	9.42	18.6%	9.18	21.6%	11.17	9.42	18.6%
Average number of employees (FTE)	23 406	25 403	-7.9%	24 428	-4.2%	24 455	26 096	-6.3%
TRI rate ¹²	6.7	6.7	0.0%	6.3	3.2%	6.1	7.0	-12.9%

Comparative 2019 figures have been restated as described in our [release](#) from 19 March 2020.

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.

IAC = Items affecting comparability, **FV** = Fair valuations and non-operational items

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

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

² Historical figures for TRI rate recalculated due to additional data received after the previous Interim Reports.

³ Earnings per share (EPS) excl. FV was added to the list of non-IFRS measures during Q4/2020 replacing the key figure of EPS excl. IAC and FV. Comparatives are recalculated.

Production and external deliveries

	Q4/20	Q4/19	Change % Q4/20- Q4/19	Q3/20	Change % Q4/20- Q3/20	2020	2019	Change % 2020-2019
Consumer board deliveries, 1 000 tonnes	646	687	-5.9%	686	-5.7%	2 742	2 811	-2.4%
Consumer board production, 1 000 tonnes	643	686	-6.2%	684	-6.0%	2 759	2 775	-0.6%
Containerboard deliveries, 1 000 tonnes	260	238	9.3%	239	8.7%	970	943	2.9%
Containerboard production, 1 000 tonnes	344	330	4.3%	318	8.2%	1 304	1 303	0.1%
Corrugated packaging European deliveries, million m ²	243	236	2.9%	225	7.9%	902	925	-2.5%
Corrugated packaging European production, million m ²	270	264	2.2%	249	8.2%	1 004	1 033	-2.8%
Market pulp deliveries, 1 000 tonnes	689	662	4.1%	671	2.8%	2 443	2 362	3.4%
Wood products deliveries, 1 000 m ³	1 244	1 194	4.2%	1 149	8.3%	4 692	4 918	-4.6%
Wood deliveries, 1 000 m ³	3 196	2 919	9.5%	2 418	32.2%	11 469	11 717	-2.1%
Paper deliveries, 1 000 tonnes	792	1 029	-23.1%	731	8.3%	3 106	4 130	-24.8%
Paper production, 1 000 tonnes	731	982	-25.5%	723	1.2%	3 034	4 065	-25.4%

CEO comment

Looking back at 2020, my first year as CEO for Stora Enso, I can undoubtedly say that it has been extremely eventful. The year has been marked by the global pandemic and slowdown of the global economy, but also by geopolitical unrest, Brexit and – for Stora Enso during the first quarter – the strikes in Finland. So, concluding with the fourth quarter, in an environment that is still volatile, I am very satisfied that we deliver steady results in line with Q4/2019. If we exclude Paper, operational EBIT increased to EUR 122 (80) million. Sequentially quarter on quarter, we can see improved sales, an indication that the markets are moving in the right direction. We are delivering on our EUR 400 million savings promise and we have further reduced working capital to record low levels, enhancing our cash flow. Our own actions have made all the difference.

The main parts of our businesses have performed well during a quarter that is maintenance heavy. We see increased activity on the market and continued good development in Packaging Materials and Packaging Solutions. Results for the Forest division are strong, and Wood Products delivered the second best Q4 results ever. For Biomaterials, there are positive signs of price recovery, as the supply and demand situation is more balanced, and China continues to recover. The accelerated structural decline persists in the paper business, leading to overcapacity and severe price pressure. Despite this, Paper delivered good cash flow.

The conversion of Oulu Mill is in a start-up phase. Its new products will strengthen our offering in the growing packaging business. This is a major step forward in our transformation. To further establish Stora Enso as a provider of high-quality, renewable packaging materials, we have also started a feasibility study for expanding pulp and board capacity at our production site in Skoghall. Moreover, we are investing EUR 80 million to modernise the wood handling capacity at Imatra Mills, where we are one of the world's largest producers of liquid packaging board, serving customers globally. These investments strengthen our capabilities for premium solutions for food, beverage and luxury packaging. And they are in line with our strategy: to accelerate growth in the packaging business, allowing us to meet the increasing demand for sustainable packaging among consumers.

Lignin is one of our key innovation areas for delivering growth in new applications, such as energy storage, binders and carbon fiber. As the largest producer in the world, we are investing EUR 14 million to build a granulation and packing plant for lignin. In addition to reducing both packaging and transportation costs, granulated lignin is easier to handle for our customers.

The real value of our forests, the foundation for our renewable raw material, has also been brought to light. After the new market based valuation method for our Nordic forest assets, the total value of our forest assets is over EUR 7 billion, an increase of almost EUR 2 billion. As part of our active forest management, we divested over 5 000 hectares of non-core forest for approximately EUR 90 million. This is a clear proof point of the value that the forest represents.

Following the green bonds issued in 2019 and 2020 in the Swedish market, I am also pleased that we have now issued our first euro green bond, and the interest from the market was big. This will allow us to continue strengthening our position as the leading renewable materials company and fits our sustainable finance strategy well.

On the note of sustainability and enabling a circular economy, I'd like to mention that we are joining forces with our customer TetraPak to explore the possibility of building a new recycling line in Poland. This would significantly increase the recycling of used beverage cartons in Europe and support in making our customers' brands circular.

Lastly, in 2020 our Board of Directors changed the 2019 dividend proposal due to business impact uncertainties related to Covid-19. In Q4, the Board decided on a second dividend installment. It was paid in December to our valued shareholders, bringing the total 2019 dividend to EUR 0.30 per share. For the financial year 2020, the Board of Directors proposes to the Annual General Meeting a dividend of 0.30 euros per share. This is aligned with our new policy to pay half of the EPS excluding fair valuations as dividend over the cycle.

To summarise, I'm proud of our achievements and how our people have not only adjusted, but also stepped up to meet the challenges. We have renewed our strategy and long-term financial targets, shaping our business for accelerated growth and value. Now I am excited to continue executing our chosen direction with the whole Stora Enso team, our customers and partners.

The renewable future grows in the forest.

Annica Bresky, President and CEO

Dividend proposal per share

0.30

Operational EBIT

5.5%

Operational ROCE excluding Forest division

4.6%

(Target >13%)

Reconciliation of operational profitability

EUR million	Q4/20	Q4/19	Change % Q4/20- Q4/19	Q3/20	Change % Q4/20- Q3/20	2020	2019	Change % 2020-2019
Operational EBITDA¹	274	277	-1.3%	330	-17.0%	1 270	1 614	-21.3%
Depreciation and silviculture costs of EAI	-3	-2	-34.4%	-6	49.7%	-15	-16	8.0%
Silviculture costs ²	-17	-15	-9.0%	-14	-19.3%	-61	-62	1.5%
Depreciation and impairment excl. IAC	-136	-136	-0.5%	-135	-1.2%	-544	-533	-2.2%
Operational EBIT	118	124	-5.1%	175	-32.8%	650	1 003	-35.2%
Fair valuations and non-operational items ³	217	588	-63.1	-4	n/m	362	494	-26.9%
Items affecting comparability (IAC)	-45	-32	-43.8%	-25	-79.7%	-90	-192	53.4%
Operating profit (IFRS)	289	680	-57.5%	145	99.1%	922	1 305	-29.3%

¹ Restated Operational EBITDA includes operational fair value changes of biological assets of EUR 50 million for 2019. In addition, the Nordic forests silviculture costs of EUR 21 million for 2019 have been presented under Operational EBITDA.

² Including damages to forests

³ Fair valuations and non-operational items include CO₂ emission rights, non-operational fair valuation changes of biological assets, adjustments for differences between fair value and acquisition cost of forest assets upon disposal and the Group's share of income tax and net financial items of EAI. From 1 January 2020 onwards, the changes in the fair valuation of biological assets are categorized in non-operational and operational fair value changes. Non-operational fair value changes of biological assets reflect changes made to valuation assumptions and parameters, usually during the annual valuation process. Operational fair value changes of biological assets are included in Operational EBITDA and contain all other fair value changes, mainly due to inflation and differences in actual harvesting levels compared to the harvesting plan. The previous periods have been restated.

Fourth quarter 2020 results (compared with Q4/2019)

Breakdown of change in sales Q4/2019 to Q4/2020

Sales Q4/2019, EUR million	2 411
Price and mix	-3%
Currency	0%
Volume	-2%
Other sales ¹	-2%
Total before structural changes	-8%
Structural changes ²	-3%
Total	-11%
Sales Q4/2020, EUR million	2 154

¹ Energy, paper for recycling, by-products etc.

² Asset closures, major investments, divestments and acquisitions

Group sales decreased by 11%, or EUR 257 million from the previous year to EUR 2 154 (2 411) million. Group sales excluding the Paper division decreased by 2%. Sales were negatively affected by mix and lower prices especially in the Paper and Forest divisions. Lower by-product sales decreased the top line further. Deliveries were clearly lower in Paper, as the global overcapacity and Covid-19 pandemic reduced demand. The divestment and closures of paper production at Oulu Mill in Finland, the Kitee and Pfarrkirchen sawmills in Finland and Germany, as well as a small packaging paper machine closure at Imatra Mills in Finland reduced sales.

Operational EBIT decreased by 5%, or EUR 6 million, from the previous year to EUR 118 (124) million. The operational EBIT margin increased to 5.5% (5.1%).

Lower sales prices and mix decreased operational EBIT by EUR 104 million, especially due to lower paper and wood prices. Total volume impact decreased operational EBIT by EUR 66 million, mainly due to the accelerated structural decline in paper demand. Production was curtailed due to the Covid-19 pandemic.

Variable costs decreased by EUR 115 million, mainly due to lower fiber, transportation, and chemicals costs, supported by the profit protection programme actions. Fixed costs decreased by EUR 24 million, mainly due to the profit protection programme actions and Covid-19 related savings. Net foreign exchange rates had a positive impact of EUR 20 million on operational EBIT. The operational result from equity accounted investments improved, due to the better profitability of Tornator. Depreciation was slightly higher.

The average number of employees in the fourth quarter of 2020 was approximately 23 400 (25 400).

Fair valuations and non-operational items had a positive net impact on the operating profit of EUR 217 (positive 588) million. The positive impact came mainly from the forest valuation increases.

Earnings per share decreased by 53.9% to EUR 0.30 (0.66), and earnings per share excluding fair valuations increased by 127.5% to EUR 0.09 (0.04).

The Group recorded items affecting comparability (IACs) with a negative impact of EUR 45 (negative 32) million on its operating profit. The related tax impact was positive EUR 12 (positive 5) million. The IACs relate mainly to asset impairments in the US-

based Viridia operations in the Biomaterials division. Asset disposal gains recognised in the Packaging Materials division had a positive IAC impact.

Net financial expenses of EUR 30 million were EUR 4 million lower than a year ago. Net interest expenses of EUR 33 million decreased by EUR 4 million, mainly as a result of the lower average interest expense rate on borrowings. Other net financial expenses were EUR 4 (5) million. The net foreign exchange rate impact in respect of cash equivalents, interest-bearing assets and liabilities and related foreign-currency hedges amounted to a gain of EUR 7 (gain of EUR 8) million, mainly due to a revaluation of foreign currency net debt in subsidiaries and joint operations.

Breakdown of change in capital employed 31 December 2019 to 31 December 2020

EUR million	Capital employed
31 December 2019	10 632
Capital expenditure excluding investments in biological assets less depreciation	60
Investments in biological assets less depletion of capitalised silviculture costs	19
Impairments and reversal of impairments	-57
Fair valuation of forest assets	1 973
Unlisted securities (mainly PVO)	-125
Equity accounted investments	-22
Net liabilities in defined benefit plans	-11
Operative working capital and other interest-free items, net	-172
Net tax liabilities	-411
Translation difference	-171
Other changes	-1
31 December 2020	11 714

The operational return on capital employed (ROCE) in the fourth quarter of 2020 was 4.3% (4.7%). Operational ROCE excluding the Forest division was 4.6%.

Fourth quarter 2020 results (compared with Q3/2020)

Group sales increased by 4%, or EUR 75 million, to EUR 2 154 (2 079) million, mainly due to higher Forest, Wood Products and Packaging Solutions sales. Excluding Paper division, sales also increased by 4%.

Operational EBIT decreased by EUR 57 million to EUR 118 (175) million. Operational EBIT excluding Paper was EUR 122 (191) million. The sales price and mix was EUR 29 million lower, mainly due to paper. The total volume impact decreased operational EBIT by EUR 1 million, as higher volumes in Forest, Wood Products and Packaging Solutions offset lower volumes in Consumer board and Biomaterials, negatively impacted by annual maintenance shutdowns. Lower variable costs improved operational EBIT by EUR 30 million, but fixed costs increased by EUR 53 million, mainly due to the Oulu Mill conversion costs and higher maintenance activity. The impact of net foreign exchange rates decreased operational EBIT by EUR 9 million. Depreciations, the operational result from equity accounted investments and the impact from divested and closed units increased operational EBIT by EUR 4 million.

Full year results 2020 (compared with full year 2019)

Breakdown of change in sales 2019 to 2020

Sales 2019, million	10 055
Price and mix	-5%
Currency	0%
Volume	-6%
Other sales ¹	-1%
Total before structural changes	-13%
Structural changes ²	-2%
Total	-15%
Sales 2020, EUR million	8 553

¹ Energy, paper for recycling, by-products etc.

² Asset closures, major investments, divestments and acquisitions

Sales, at EUR 8 553 (10 055) million, were 14.9% lower than a year earlier. Deliveries reduced in all divisions and the largest drop was in paper volumes. Sales prices were lower in all divisions, with the biggest negative price impacts coming from pulp and paper. The impact of the foreign exchange rate movements on sales was EUR 19 million positive. Structural changes reduced sales by EUR 226 million, the biggest ones being the Oulu Mill conversion in Finland, the divestment of the Dawang paper mill in China in October 2019, the closure of the paper machine 6 at Imatra Mills in Finland in December 2019, the divestment of the Pfarrkirchen Mill in Austria in during the first quarter of 2020, and the closure of the Kitee sawmill in Finland during the second quarter of 2020. Sales excluding the paper business decreased by 8.7%.

Operational EBIT, at EUR 650 (1 003) million, decreased by 35.2% or EUR 353 million and represents a margin of 7.6% (10.0%). Operational EBIT decreased due to lower sales prices and lower volumes in all divisions. The biggest negative impact came from the lower paper volumes and prices and the significantly lower pulp prices.

Variable costs were EUR 340 million lower, mainly fiber costs including wood, pulp and recycled paper. Fixed costs decreased by EUR 117 million due to Covid-19 and profit protection programme actions. The net foreign exchange impact increased operational EBIT by EUR 123 million. The operational result from equity accounted investments was EUR 16 million lower, mainly due to the Bergvik Skog transaction in 2019.

Segments in the fourth quarter 2020 (compared with Q4/2019)

As of 1 January 2020, Stora Enso merged its containerboard business with the Consumer Board division, creating a new Packaging Materials division. The remaining business in Packaging Solutions, together with the recently created Formed Fiber unit, constitute a more focused Packaging Solutions division. The Group also established a new Forest division as of 1 January. Certain historical figures for Packaging Materials, Packaging Solutions, Forest, Segment Other and the Group have been restated as described in the release from 19 March 2020.

Packaging Materials division

Strong performance continues, market conditions improving for containerboard

The Packaging Materials division is a global leader in the circular economy with our premium renewable and recyclable packaging materials based on both virgin and recycled fiber. Addressing the needs of today's eco-conscious consumers, we help customers replace fossil-based materials with low-carbon, renewable and recyclable alternatives for their food and drink, pharmaceutical or transport packaging. A wide selection of barrier coatings enables design optimisation for various demanding packaging end-uses.

EUR million	Q4/20	Q4/19	Change % Q4/20-Q4/19	Q3/20	Change % Q4/20-Q3/20	2020	2019	Change % 2020-2019
Sales	759	770	-1.4%	771	-1.5%	3 115	3 254	-4.3%
Sales (Consumer board)	602	614	-1.9%	628	-4.1%	2 523	2 564	-1.6%
Sales (Containerboard)	162	156	3.9%	144	12.6%	602	690	-12.8%
Operational EBITDA	130	115	13.6%	168	-22.6%	641	574	11.7%
Operational EBITDA (Consumer board)	124	96	29.9%	154	-19.3%	578	434	33.1%
Operational EBITDA (Containerboard)	6	19	-67.9%	14	-57.3%	63	139	-54.9%
Operational EBITDA margin	17.2%	14.9%		21.8%		20.6%	17.6%	
Operational EBIT	67	57	16.9%	111	-40.0%	403	339	18.8%
Operational EBIT margin	8.8%	7.4%		14.4%		12.9%	10.4%	
Operational ROOC	9.2%	8.0%		15.6%		13.9%	12.4%	
Cash flow from operations	184	175	5.4%	194	-5.1%	694	632	9.8%
Cash flow after investing activities	46	87	-47.5%	104	-56.3%	301	401	-25.1%
Deliveries, 1 000 tonnes	997	1 014	-1.6%	1 004	-0.7%	4 043	4 111	-1.7%
Deliveries (Consumer board)	651	687	-5.2%	687	-5.2%	2 752	2 812	-2.1%
Deliveries (Containerboard)	346	327	5.8%	317	9.1%	1 291	1 299	-0.6%
Production, 1 000 tonnes	987	1 016	-2.8%	1 002	-1.5%	4 063	4 078	-0.4%
Production (Consumer board)	643	686	-6.2%	684	-6.0%	2 759	2 775	-0.6%
Production (Containerboard)	344	330	4.3%	318	8.2%	1 304	1 303	0.1%

Comparative 2019 figures have been restated as described in our [release](#) from 19 March 2020. Sales and Operational EBITDA and EBIT margin figures for Q4/19, Q3/19, and full year 2019 have been recalculated versus the amounts presented in the earlier release.

- Sales decreased by 1% or EUR 11 million, to EUR 759 million. Clearly lower containerboard prices and the closure of a small packaging paper machine at Imatra Mills in Finland was partly mitigated by higher pulp sales and containerboard demand.
- Operational EBIT increased by EUR 10 million to EUR 67 million, despite significant conversion costs of EUR 27 million for the Oulu kraftliner mill. Clearly lower variable cost, especially for pulp, chemicals and energy, together with the profit protection programme, more than offset lower containerboard prices and lower consumer board volumes. Market situation in China continued to improve.
- Operational ROOC improved to 9.2% (8.0%), mainly due to improved profitability.
- In line with the growth strategy, Stora Enso commenced a feasibility study and environmental permit application process on enhancing and expanding the pulp and board making capabilities at its Skoghall Mill in Sweden. The feasibility study is expected to be completed by the end of 2021. If decided, production would start at the earliest in Q4/2023.
- Stora Enso invests in centralising and modernising the wood handling capacity at its Imatra Mills in Finland. The investment of EUR 80 million will enhance Stora Enso's production capabilities for premium packaging board. The investment is planned to start in Q1/2021 and to be completed in Q3/2022.
- As leaders in driving a circular bioeconomy, Stora Enso and Tetra Pak are conducting a feasibility study to assess the viability of building a large-scale recycling line for Used Beverage Cartons (UBC) at Stora Enso's Ostrołęka Mill in Poland.

Markets

Product	Market	Demand Q4/20 compared with Q4/19	Demand Q4/20 compared with Q3/20	Price Q4/20 compared with Q4/19	Price Q4/20 compared with Q3/20
Consumer board (FBB)	Europe	Slightly stronger	Stable	Slightly lower	Slightly lower
Virgin fiber-based containerboard	Global	Stable	Slightly stronger	Slightly lower	Stable
Recycled fiber based (RCP) containerboard	Europe	Slightly stronger	Slightly stronger	Stable	Higher

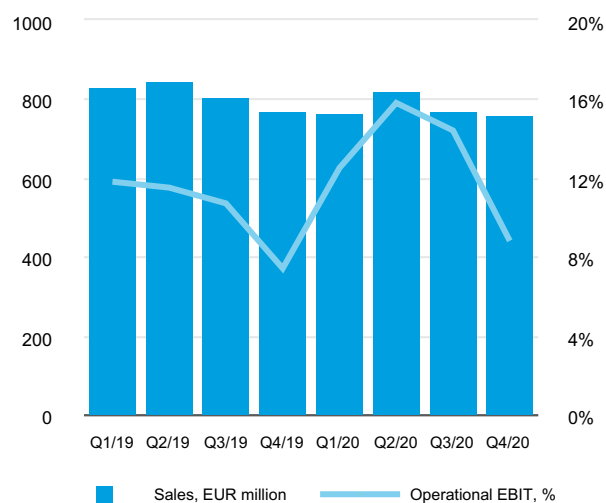
Packaging Materials division (continued)

Sales and operational EBIT

Operational ROOC

9.2%

(Target: >20%)



Scheduled annual maintenance shutdowns

	2021	2020
Q1	–	–
Q2	Beihai and Ostrołęka mills	Heinola Mill
Q3	Imatra and Varkaus mills	Beihai, Imatra, and Varkaus mills
Q4	Skoghall, Fors, Ingerois, Heinola and Oulu mills	Fors, Ingerois, Skoghall and Ostrołęka mills

Packaging Solutions division

Solid result supported by strong e-commerce demand

The Packaging Solutions division develops and sells premium fiber-based packaging products and services. Our high-end eco-friendly packaging products are used by leading brands across multiple market sectors, including store retail, e-commerce and industrials. The portfolio includes corrugated and other converting, design services, automation solutions, and scalable innovations such as formed fiber and biocomposites.

EUR million	Q4/20	Q4/19	Change % Q4/20- Q4/19	Q3/20	Change % Q4/20- Q3/20	2020	2019	Change % 2020-2019
Sales	160	170	-6.0%	145	10.5%	594	698	-14.9%
Operational EBITDA	17	16	0.3%	15	12.6%	61	71	-14.3%
Operational EBITDA margin	10.3%	9.7%		10.1%		10.3%	10.2%	
Operational EBIT	10	10	-4.4%	8	24.9%	34	46	-26.9%
Operational EBIT margin	6.0%	5.9%		5.3%		5.7%	6.6%	
Operational ROOC	16.2%	16.4%		13.2%		14.1%	18.9%	
Cash flow from operations	17	26	-32.7%	10	74.3%	51	93	-45.7%
Cash flow after investing activities	7	16	-57.4%	7	3.5%	28	58	-51.5%
Corrugated packaging European deliveries, million m ²	268	261	2.8%	250	7.3%	999	1 026	-2.6%
Corrugated packaging European production, million m ²	270	264	2.2%	249	8.2%	1 004	1 033	-2.8%

Comparative 2019 figures have been restated as described in our [release](#) from 19 March 2020. Sales and Operational EBITDA and EBIT margin figures for Q4/19, Q3/19, and full year 2019 have been recalculated versus the amounts presented in the earlier release. The biocomposites business was transferred from Wood Products to Packaging Solutions on 1 July 2020, and the historical figures have not been restated, as the change was not material for the Group.

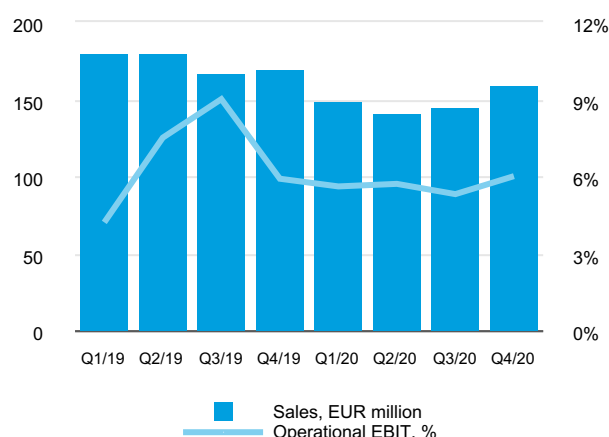
- Sales decreased by 6%, or EUR 10 million to EUR 160 million. Lower corrugated box prices in Europe due to decreased raw material prices, and negative sales foreign exchange rates were only partly offset by slightly higher European corrugated deliveries.
- Operational EBIT remained flat at EUR 10 million. Lower sales and accelerated efforts in new businesses (biocomposites, formed fiber and Box Inc.) were offset by lower cost for containerboard and lower fixed costs primarily relating to the profit protection programme.
- Operational ROOC remained stable at 16.2% (16.4%), despite costs related to the new business.
- Stora Enso and the wholesale company Tingstad launched unique formed fiber food service bowls to replace plastics. The PureFiber™ by Stora Enso product range will expand to other food and consumer goods applications.

Markets

Product	Market	Demand Q4/20 compared with Q4/19	Demand Q4/20 compared with Q3/20	Price Q4/20 compared with Q4/19	Price Q4/20 compared with Q3/20
Corrugated packaging	Europe	Slightly stronger	Significantly stronger	Lower	Slightly lower

Sales and operational EBIT

Operational ROOC



16.2%

(Target: >25%)

Biomaterials division

Market conditions improving; low profitability due to planned annual maintenance shutdowns

The Biomaterials division meets the growing demand for the replacement of products made from fossil-based and hazardous materials with bio-based solutions. We use all fractions of biomass, like lignin and sugars, to develop new solutions. We work to replace fossil-based materials with new applications such as carbon for energy storage, bio-based binders, and bio-based carbon fiber. The division's offering includes a wide variety of pulp grades to meet the demands of paper, board, tissue, textile and hygiene product producers as well as materials from side streams of our processes, such as tall oil and turpentine from biomass.

EUR million	Q4/20	Q4/19	Change % Q4/20- Q4/19	Q3/20	Change % Q4/20- Q3/20	2020	2019	Change % 2020-2019
Sales	314	341	-7.9%	305	3.0%	1 193	1 464	-18.5%
Operational EBITDA	17	21	-19.4%	38	-55.2%	128	356	-64.0%
Operational EBITDA margin	5.4%	6.1%		12.3%		10.7%	24.3%	
Operational EBIT	-12	-12	-1.7%	10	-224.5%	9	233	-96.1%
Operational EBIT margin	-3.9%	-3.5%		3.2%		0.8%	15.9%	
Operational ROOC	-2.1%	-1.9%		1.6%		0.4%	9.4%	
Cash flow from operations	44	66	-33.2%	47	-7.1%	96	423	-77.2%
Cash flow after investing activities	14	11	20.1%	26	-46.9%	0	266	-100.1%
Pulp deliveries, 1 000 tonnes	649	709	-8.4%	652	-0.4%	2 427	2 520	-3.7%

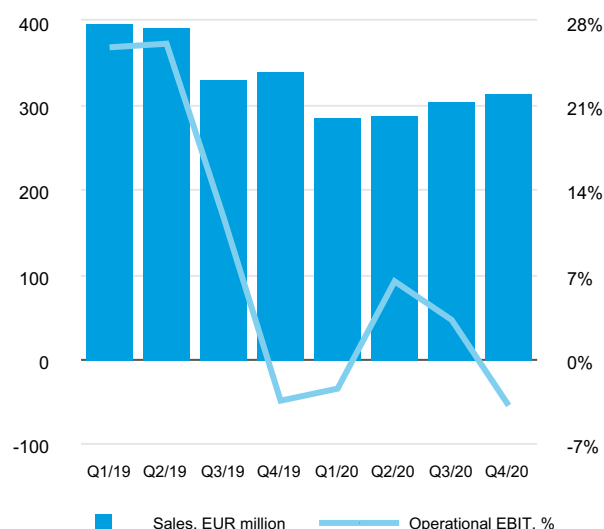
- Sales decreased by 8%, or EUR 27 million, to EUR 314 million. Lower pulp deliveries, mainly due to all-time high deliveries a year ago, and the negative sales foreign exchange rate impact decreased sales.
- Operational EBIT remained flat at EUR -12 million. The negative impact from total volumes affected by larger than normally maintenance works and slightly lower price. The negative impact was partially offset by clearly lower variable costs, especially for wood, chemicals and energy, supported by profit protection programme actions.
- Operational ROOC remained at a low level of -2.1% (-1.9%).
- Stora Enso invests EUR 14 million to build a granulation and packing plant for lignin, allowing easier packing and handling of lignin compared to powder and wet form. The granulation plant will be located at Stora Enso's Sunila Mill in Finland.
- Stora Enso will permanently close its Viridia operations in the United States during 2021. The operations have consisted of two facilities: a research centre in Danville, Virginia, and a demo plant in Raceland, Louisiana.

Markets

Product	Market	Demand Q4/20 compared with Q4/19	Demand Q4/20 compared with Q3/20	Price Q4/20 compared with Q4/19	Price Q4/20 compared with Q3/20
Softwood pulp	Europe	Slightly weaker	Stronger	Slightly higher	Slightly higher
Hardwood pulp	Europe	Slightly weaker	Significantly stronger	Stable	Stable
Hardwood pulp	China	Stronger	Significantly stronger	Stable	Slightly higher

Sales and operational EBIT

Operational ROOC



-2.1%

(Target: >15%)

Scheduled annual maintenance shutdowns

	2021	2020
Q1	–	–
Q2	Enocell Mill	–
Q3	Skutskär and Sunila mills	Sunila and Veracel mills
Q4	Montes del Plata and Veracel mills	Montes del Plata and Skutskär mills

Wood Products division

Exceptionally strong Q4

The Wood Products division is the largest sawn wood producer in Europe and a leading provider of sustainable wood-based solutions for the construction industry. Our growing Building Solutions business offers building concepts to support low-carbon construction and eco-friendly designs. We develop digital tools to simplify the designing of building projects with wood. We also offer applications for windows, doors and for packaging industries, and our pellets provide a sustainable heating solution.

EUR million	Q4/20	Q4/19	Change % Q4/20- Q4/19	Q3/20	Change % Q4/20- Q3/20	2020	2019	Change % 2020-2019
Sales	360	374	-3.7%	341	5.6%	1 386	1 569	-11.7%
Operational EBITDA	44	26	69.8%	49	-9.4%	160	153	4.6%
Operational EBITDA margin	12.3%	7.0%		14.3%		11.6%	9.8%	
Operational EBIT	33	14	143.7%	38	-12.4%	114	105	8.6%
Operational EBIT margin	9.2%	3.6%		11.0%		8.3%	6.7%	
Operational ROOC	23.5%	8.2%		25.2%		19.1%	16.6%	
Cash flow from operations	79	57	38.9%	64	23.8%	211	183	15.3%
Cash flow after investing activities	74	42	75.1%	57	30.6%	181	135	34.0%
Wood products deliveries, 1 000 m ³	1 155	1 149	0.5%	1 071	7.8%	4 407	4 753	-7.3%

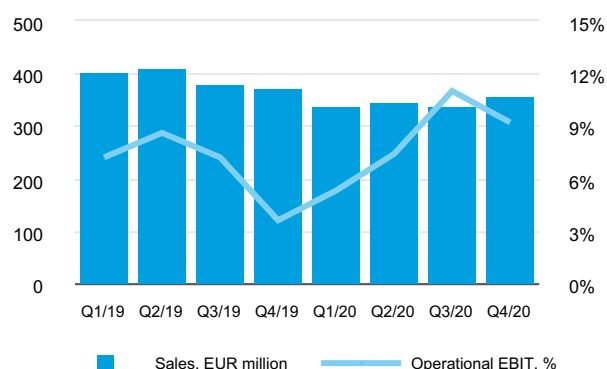
- Sales decreased by 4%, or EUR 14 million to EUR 360 million. The structural changes at the Pfarrkirchen mill in Germany, and at the Uimaharju and Kitee sawmills in Finland reduced sales by EUR 23 million. This was only partly offset by slightly better prices and mix for classic sawn, laminated veneer lumber (LVL) and US sales.
- Operational EBIT increased by EUR 19 million to EUR 33 million, the second highest Q4 ever. Higher sales prices and good cost control, supported by the profit protection programme, improved profitability.
- Operational ROOC increased above the long-term target to 23.5% (8.2%).
- Stora Enso's focus on the mass timber construction business continues, despite the volatile construction outlook and expected project delays. There were more than 650 projects with CLT and LVL in Q4, covering a wide range for large and smaller buildings delivered to 21 countries around the world.

Markets

Product	Market	Demand Q4/20 compared with Q4/19	Demand Q4/20 compared with Q3/20	Price Q4/20 compared with Q4/19	Price Q4/20 compared with Q3/20
Wood products	Europe	Stronger	Stable	Slightly higher	Slightly higher

Sales and operational EBIT

Operational ROOC



23.5%

(Target: >20%)

Forest division

Continued strong and stable performance

The Forest division creates value with sustainable forest management, competitive wood supply and innovation, which are the foundation for Stora Enso's renewable offerings. The division manages Stora Enso's forest assets in Sweden and the 41% share of Tornator, the majority of whose forest assets are located in Finland. The division is also responsible for wood sourcing for Stora Enso's Nordic, Baltic and Russian operations and B2B customers. Stora Enso is one of the biggest private forest owners in the world.

EUR million	Q4/20	Q4/19	Change % Q4/20-Q4/19	Q3/20	Change % Q4/20-Q3/20	2020	2019	Change % 2020-2019
Sales	527	558	-5.5%	457	15.5%	2 046	2 321	-11.9%
Operational EBITDA	54	43	26.8%	54	0.0%	217	145	49.9%
Operational EBITDA margin	10.3%	7.7%		11.9%		10.6%	6.2%	
Operational EBIT	41	31	31.1%	38	8.0%	164	99	64.9%
Operational EBIT margin	7.8%	5.6%		8.3%		8.0%	4.3%	
Operational ROCE	3.8%	3.8%		4.3%		3.9%	3.7%	
Cash flow from operations	41	273	-85.0%	37	10.3%	203	370	-45.1%
Cash flow after investing activities	32	258	-87.7%	29	8.0%	166	333	-50.0%
Wood deliveries, 1 000 m ³	9 956	9 379	6.2%	8 591	15.9%	37 369	38 775	-3.6%
Operational fair value change of biological assets	14	12	12.1%	20	-31.9%	70	50	40.6%

Comparative 2019 figures have been restated as described in our [release](#) from 19 March 2020.

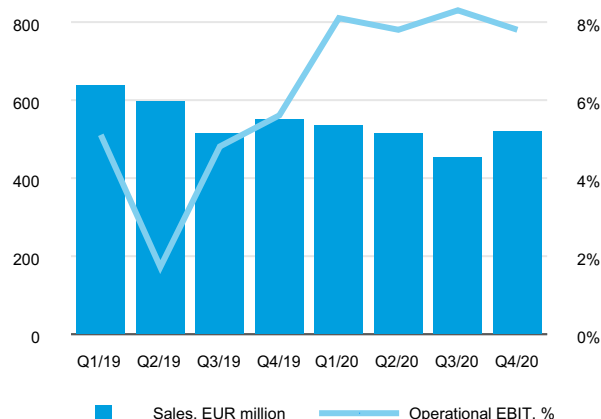
- Sales decreased by 5% or EUR 31 million to EUR 527 million. Clearly lower wood prices were only partly offset by increased wood deliveries, especially in Sweden.
- Operational EBIT increased by EUR 10 million to a record high Q4 level of EUR 41 million. The Nordic forest equity accounted investment, Tornator, signed a wind power project transaction which together with increased efficiency in the Finnish wood sourcing unit improved profitability significantly.
- Operational ROCE remained above the long-term target at 3.8% (3.8%), despite a clear capital base increase after the adoption of the market transaction based valuation for the Nordic forest assets.
- Stora Enso announced the divestment of forest assets located in southern Sweden to the forestry fund Silvestica Green Forest AB. The total area of forest land in the transaction is approximately 5 200 hectares. The selling price was approximately EUR 90 million. The divestment was closed in January 2021. A gain of approximately EUR 70 million, based on the assets' historical cost, will be recorded in operational EBIT for the first quarter of 2021. The gain under IFRS is approximately EUR 30 million, based on the IFRS book value.
- At the end of 2020, Stora Enso changed the valuation method for forest assets and accounting principle for forest land in the Nordics. Valuation of forest assets in Sweden is based on market transaction data.
- Tornator and the largest onshore wind power company in Europe OX2 have signed an agreement, according to which Tornator will lease land in Finland for OX2 to build wind power of 600 MW.

Sales and operational EBIT

Operational ROCE

3.8%

(Target: >3.5%)



Paper division

Challenging market conditions continue; strong cash flow generation

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 paper products made from recycled and virgin fiber, our technical expertise and our sustainability know-how as well as our mill and customer service centre network.

EUR million	Q4/20	Q4/19	Change % Q4/20- Q4/19	Q3/20	Change % Q4/20- Q3/20	2020	2019	Change % 2020-2019
Sales	476	694	-31.4%	468	1.7%	1 979	2 856	-30.7%
Operational EBITDA	19	71	-73.5%	11	72.3%	66	318	-79.4%
Operational EBITDA margin	3.9%	10.2%		2.3%		3.3%	11.1%	
Operational EBIT	-5	44	-111.0%	-16	70.4%	-38	213	-118.0%
Operational EBIT margin	-1.0%	6.3%		-3.5%		-1.9%	7.4%	
Operational ROOC	-3.5%	24.7%		-10.1%		-6.7%	29.3%	
Cash flow from operations	66	97	-31.8%	31	111.1%	105	344	-69.5%
Cash flow after investing activities	49	72	-31.5%	15	233.3%	31	264	-88.4%
Cash flow after investing activities to sales, %	10.3%	10.3%		3.2%		1.6%	9.3%	
Paper deliveries, 1 000 tonnes	792	1 029	-23.1%	731	8.3%	3 106	4 130	-24.8%
Paper production, 1 000 tonnes	731	982	-25.5%	723	1.2%	3 034	4 065	-25.4%

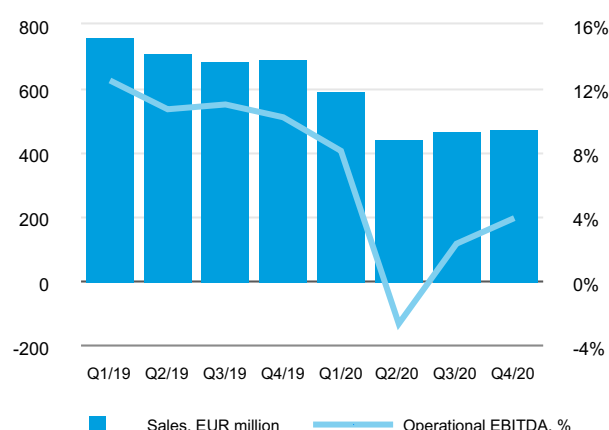
- Sales decreased by 31%, or EUR 218 million, to EUR 476 million. The ongoing Covid-19 pandemic has accelerated the global overcapacity situation, leading to a further decline in demand and placing additional pressure on both prices and deliveries in all paper grades. The discontinuation of Oulu Mill paper production in Finland decreased sales by EUR 50 million.
- Operational EBIT decreased by EUR 49 million to EUR -5 million. Clearly lower prices and the total volume impact were only partly mitigated by lower costs, supported by the profit protection programme. Activities related to the discontinuation of paper production at Oulu Mill had a EUR 5 million negative impact on the operational EBIT.
- Cash flow after investing activities to sales ratio is clearly above long-term target at 10.3% (10.3%), driven by very good working capital management.
- Stora Enso completed the co-determination negotiations concerning the closure of one standard newsprint paper machine (PM3) in December and the deinking plant in Q2/2021 at Stora Enso's Hylte Mill in Sweden. The maximum personnel impact is 140 people.

Markets

Product	Market	Demand Q4/20 compared with Q4/19	Demand Q4/20 compared with Q3/20	Price Q4/20 compared with Q4/19	Price Q4/20 compared with Q3/20
Paper	Europe	Significantly weaker	Significantly stronger	Significantly lower	Slightly lower

Sales and operational EBITDA

Cash flow after investing activities to sales¹



10.3%

(Target: >7%)

Scheduled annual maintenance shutdowns

	2021	2020
Q1	–	–
Q2	–	–
Q3	Veitsiluoto Mill	Veitsiluoto Mill
Q4	Nymölla Mill	Nymölla 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 Stora Enso's shareholding in the energy company Pohjolan Voima (PVO), and the Group's shared services and administration.

EUR million	Q4/20	Q4/19	Change % Q4/20-Q4/19	Q3/20	Change % Q4/20-Q3/20	2020	2019	Change % 2020-2019
Sales	231	262	-11.8%	230	0.5%	928	1 076	-13.7%
Operational EBITDA	-7	-14	49.6%	-5	-54.2%	-3	-4	20.4%
Operational EBITDA margin	-3.1%	-5.5%		-2.0%		-0.3%	-0.3%	
Operational EBIT	-16	-19	19.8%	-13	-21.0%	-35	-32	-9.8%
Operational EBIT margin	-6.7%	-7.4%		-5.6%		-3.8%	-3.0%	
Cash flow from operations	5	32	-86.1%	16	-71.8%	-17	-55	69.3%
Cash flow after investing activities	1	32	-95.5%	13	-88.5%	-27	-71	62.6%

- Sales decreased by EUR 31 million to EUR 231 million, as sales related to internal services decreased.
- Operational EBIT increased by EUR 3 million to EUR -16 million mainly due to Covid-19 related savings actions.

Financing in the fourth quarter 2020 (compared with Q3/2020)

Capital structure

EUR million	31 Dec 2020	30 Sep 2020	30 Jun 2020	31 Mar 2020	31 Dec 2019
Operative fixed assets ¹	12 566	10 519	10 626	10 337	10 779
Equity accounted investments	456	430	423	443	483
Operative working capital, net	531	792	940	914	771
Non-current interest-free items, net	-561	-622	-614	-496	-571
Operating Capital Total	12 993	11 118	11 374	11 198	11 462
Net tax liabilities	-1 279	-881	-854	-792	-830
Capital Employed	11 714	10 237	10 520	10 406	10 632
Equity attributable to owners of the Parent	8 809	7 243	7 244	7 018	7 429
Non-controlling interests	-16	-14	-13	-11	-7
Net interest-bearing liabilities	2 921	3 008	3 289	3 399	3 209
Financing Total	11 714	10 237	10 520	10 406	10 632

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

Cash and cash equivalents net of overdrafts increased by EUR 299 million to EUR 1 655 million. Net debt decreased by EUR 87 million to EUR 2 921 (EUR 3 008) million mainly as a result of solid cash flow from operations even after investments and dividend payment. The ratio of net debt to the last 12 months' operational EBITDA was 2.3, compared to the ratio of 2.4 in the previous quarter. The net debt/equity ratio on 31 December 2020 decreased to 0.33 (0.42) mainly as a result of the market transactions based forest assets fair valuation change implemented during the fourth quarter, increasing equity. The average interest expense rate on borrowings decreased to 3.0% (3.1%).

During the fourth quarter Stora Enso successfully issued a new EUR 500 million green bond under its EMTN (Euro Medium Term Note) programme and Stora Enso's Green Bond framework. The bond matures in December 2030 and pays a fixed coupon of 0.625%.

Stora Enso has a EUR 600 million committed revolving credit facility that was fully undrawn at the end of the quarter. In addition, Stora Enso has undrawn committed bilateral credit facility arrangements with commercial banks up to EUR 250 million. The original tenor of these bilateral arrangements varies from 18 to 24 months and they mature in 2021 and 2022. Stora Enso also has an undrawn committed EUR 150 million loan signed with the European Investment Bank during the fourth quarter that can be drawn at the latest in 2022 for a five-year maturity. Additionally, Stora Enso has access to statutory pension premium loans in Finland up to EUR 950 (950) million.

Operative fixed assets increased by EUR 2 047 million, mainly as a result of forest asset valuation and accounting principles changes.

The fair value of Pohjolan Voima Oy (PVO) shares, accounted for as an equity investment fair valued through other comprehensive income under IFRS 9, increased in the quarter by EUR 15 million to EUR 394 million mainly due to higher trading multipliers as a result of the higher equity valuations on the financial markets partially offset by higher WACC.

The Cumulative translation adjustment (net of hedges and taxes) increased the equity by EUR 125 million in Q4 2020 due to currency movements.

Cash flow in the fourth quarter 2020 (compared with Q3/2020)

Operative cash flow

EUR million	Q4/20	Q4/19	Change % Q4/20- Q4/19	Q3/20	Change % Q4/20- Q3/20	2020	2019	Change % 2020-2019
Operational EBITDA	274	277	-1.3%	330	-17.0%	1 270	1 614	-21.3%
IAC on operational EBITDA	-8	22	-135.7%	-8	3.2%	-25	-128	80.5%
Other adjustments	-42	153	-127.2%	-18	-129.0%	-97	265	-136.4%
Change in working capital	212	274	-22.7%	95	123.2%	195	240	-18.8%
Cash flow from operations	436	725	-39.8%	399	9.5%	1 344	1 991	-32.5%
Cash spent on fixed and biological assets	-213	-207	-2.8%	-147	-44.9%	-661	-598	-10.5%
Acquisitions of equity accounted investments	-1	0	-116.5%	-1	59.8%	-2	-7	68.7%
Cash flow after investing activities	223	518	-57.0%	250	-11.0%	680	1 386	-50.9%

Comparative 2019 figures have been restated as described in our [release](#) from 19 March 2020.

The fourth quarter 2020 cash flow after investing activities was positive at EUR 223 million. Working capital decreased by EUR 212 million mainly due to good working capital management. All divisions reached record low working capital levels for the

quarter. Cash spent on fixed and biological assets was EUR 213 million. Payments related to the previously announced provisions amounted to EUR 9 million.

Capital expenditure

During 2020, as part of managing the macroeconomic uncertainties, focus was put on cash flow. Capital expenditure was lowered from originally planned maximum amount of EUR 750 million to the actual EUR 687 million. Additions to fixed and biological assets in the fourth quarter 2020 totalled EUR 303 (302) million, of which EUR 287 million were fixed assets including EUR 14 million of leases capex, and EUR 16 million of biological assets. Depreciations and impairment charges excluding IACs totalled EUR 136 (136) million. Additions in fixed and biological assets had a cash outflow impact of EUR 213 (207) million.

The main projects ongoing in the fourth quarter of 2020 were the Oulu Mill conversion into kraftliner production in Finland, the pilot facility at Sunila Mill in Finland for producing bio-based carbon materials based on lignin, investment in new production line for cross laminated timber (CLT) at Ždírec Mill in the Czech Republic and the wood handling upgrade investment at Imatra Mills in Finland.

Capital expenditure and depreciation forecast 2021

EUR million	Forecast 2021
Capital expenditure	675–725
Depreciation and depletion of capitalised silviculture costs	600–640

Stora Enso's capital expenditure forecast includes approximately EUR 70 million for the Group's biological assets and the capitalised leasing contracts according to IFRS 16 Leases of approximately EUR 40 million. The depreciation and depletion of capitalised silviculture costs forecast also includes the impact of IFRS 16. The depletion of capitalised silviculture costs is forecast to be EUR 45–60 million.

Capital expenditure on fixed assets includes investments in and acquisitions of tangible and intangible assets as well as internally generated assets and capitalised borrowing costs, net of any related subsidies. Capital expenditure on leased assets includes new capitalised leasing contracts. Capital expenditure on biological assets consists of acquisitions of biological assets and capitalisation of costs directly linked to growing trees in plantation forests. The cash flow impact of capital expenditure is presented in cash flow from investing activities, excluding leases capex, where the cash flow impact is based on paid lease liabilities and presented in cash flow from financing and operating activities.

Sustainability in the fourth quarter 2020

Safety performance

TRI rate

	Q4/20	Q4/19	Q3/20	2020	2019	Milestone	Milestone to be reached by
TRI rate ¹²	6.7	6.7	6.3	6.1	7.0	4.7	end of 2020

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

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

² Historical figures for TRI rate recalculated due to additional data received after the previous Interim Reports.

Stora Enso takes active and precautionary measures to mitigate the effects of the pandemic and keep employees and contractors safe and healthy. In the end of November, Covid-19 infections were detected among contractors working on the Oulu Mill conversion project. Consequently, Stora Enso further enhanced its guidelines and tested all personnel including contractors working at the mill. Follow up tests were also conducted. The company also ran a third-party supplier audit of selected contractors on their preparedness and execution of preventive measures while onsite at Oulu Mill. The Covid-19 impact related to the conversion project at the mill is under control.

Suppliers

Implementation of the Supplier Code of Conduct

	31 Dec 2020	30 Sep 2020	31 Dec 2019	Target
% of supplier spend covered by the Supplier Code of Conduct ¹	96%	97%	96%	95%

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

Forests, plantations, and land use

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

	31 Dec 2020	30 Sep 2020	31 Dec 2019
Productive area occupied by social movements not involved in the agreements, ha	215	215	470

At the end of the year, 215 hectares or 0.3% 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.

Since 2012, Veracel has voluntarily approved the transfer of approximately 20 000 hectares of land to benefit landless people. At the end of 2020, the total land area owned by Veracel was 213 000 hectares, of which 82 000 hectares are planted with eucalyptus for pulp production.

Carbon dioxide

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

	31 Dec 2020	30 Sep 2020	31 Dec 2019	Target	Target to be reached by
Reduction of fossil CO ₂ e emissions per saleable tonne of board, pulp, and paper (kg/t) ¹²	-26%	-25%	-26%	-31%	end of 2030

¹ Direct fossil CO₂e emissions from production and indirect fossil CO₂e emissions related to purchased electricity and heat (Scope 1 and 2). Excluding joint operations. Rolling four quarters.

² Historical figures recalculated due to additional data after the previous Interim Reports.

In 2017, the Science Based Target (SBT) initiative approved our 2030 target to reduce our greenhouse gas (GHG) emissions by 31% from operations per tonne of board, pulp, and paper produced compared to a 2010 base-year. Despite lower production volumes in paper the year-on-year performance remained stable mainly due to the less fossil-intensive electricity purchased for our mills in Finland.

Other events

Stora Enso's Sustainability report 2019 was rated among the top ten globally by the World Business Council for Sustainable Development (WBCSD).

Stora Enso was ranked the most sustainable listed company in our sector in Sweden by Dagens Industri, Aktuell Hållbarhet, and Lund University School of Economics and Management.

The Swedish University of Agricultural Sciences (SLU), Stora Enso's partner in developing climate impact research for forest product companies, published [a report](#) that provides evidence of our positive climate impact.

Short-term risks and uncertainties

The global outlook has brightened. While we expect a weaker rebound in 2021 than anticipated in the end of Q3/2020, recent vaccine progress has shifted the balance of risks substantially and opened the door to a more rapid relaxation of restrictions. The global output is constrained by social distancing in the near term, before large-scale and permanent reductions in restrictions might begin around mid-2021. Nevertheless, and despite a strong initial recovery, high unemployment, stagnant investments, business insolvencies and surging corporate and sovereign debt, as well as dramatic market corrections triggered by unconventional monetary policy measures may limit the revival in 2021. In addition, Stora Enso continues to face uncertainty in the short and medium term. However, compared with previous recessions, both the industry in general and Stora Enso in particular with its diversified business portfolio and relatively strong balance sheet, are considered more resilient to economic shock and morbid business conditions.

Stora Enso maintains a Covid-19 risk assessment process to determine the potential near- and medium-term implications of the direct and indirect impacts on Stora Enso's business operations. The process builds on several alternative scenarios, involving the identification and planning of business contingency and cash preservation measures to limit the potential impacts across Stora Enso's business divisions and to ensure sufficient liquidity in all conditions. The contemplated worst-case scenarios, which assume faltering vaccine progress and delayed W-shaped recovery, would not, in Stora Enso's view, lead to circumstances that would compromise Stora Enso's ability to continue as a going concern.

The trend towards nationalist anti-globalist policies may grow following the Covid-19 pandemic, with border checks on goods and people becoming more stringent and national interests being promoted. There is also a risk that even open economies, such as those in Western Europe and Asian business hubs, enact policies in direct opposition to globalisation. The tail risk related to the UK's exit from the EU, subsequent to the trade deal between the two, is mainly limited to near-term congestion in logistics, while the UK market demand is not expected to suffer notable impacts.

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 flow and financial position.

Stora Enso has been granted various investment subsidies and has given certain investment commitments in different countries e.g. Finland, China and Sweden. If committed planning conditions are not met, local officials may pursue administrative measures to reclaim some of the formerly granted investment subsidies or to impose penalties on Stora Enso, and the outcome of such a process could result in a negative financial impact on Stora Enso.

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 transport 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/annualreport.

Energy sensitivity analysis: the direct effect of a 10% increase in electricity and fossil fuel market prices would have a negative impact of approximately EUR 11 million on operational EBIT for the next 12 months.

Wood sensitivity analysis: the direct effect of a 10% increase in wood prices would have a negative impact of approximately EUR 177 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 105 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 32 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 transaction risk 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 would be approximately positive EUR 133 million, negative EUR 20 million and positive EUR 22 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 in an exposure currency.

The Group's consolidated income statement on operational EBIT level is exposed to a foreign-currency translation risk worth approximately EUR 120 million cost exposure in Brazilian real (BRL) and approximately EUR 28 million income exposure in Chinese Renminbi (CNY). These exposures are arising from the foreign subsidiaries and joint-operations located in Brazil and China, respectively. For these exposures a 10% strengthening in the value of a foreign currency would have a negative EUR 12 million and a positive EUR 3 million 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. A provision has been recognised for obligations for which the related amount can be estimated reliably and for which the related future cost is considered to be at least probable.

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, at the time of the decision, BRL 20 (EUR 3) 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.

Changes in organisational structure in 2020

As of 1 January 2020, Stora Enso merged its containerboard business in the Packaging Solutions division with the Consumer Board division, creating a new Packaging Materials division. The remaining business in Packaging Solutions, together with Stora Enso's recently created formed fiber unit, constituted a more focused Packaging Solutions division. The Group also established a new Forest division.

Changes in Group Leadership Team in 2020

Jari Suominen was appointed as EVP, Head of Forest division as of 1 January 2020. He continued as a member of the Group Leadership Team.

David Ekberg was appointed as EVP, Head of Packaging Solutions division and member of the Group Leadership Team as of 1 April 2020.

Lars Völkel was appointed EVP, Head of Wood Products division, and member of the Group Leadership Team as of 1 July 2020.

Katariina Kravi was appointed EVP, Head of Human Resources, and member of the Group Leadership Team as of 1 September 2020.

Annette Stube was appointed EVP, Head of Sustainability, and member of the Group Leadership Team as of 1 September 2020. She succeeded **Noel Morrin**, who retired at the end of 2020.

Tobias Bäärnman, Chief Strategy and Innovation Officer, was appointed as a member of the Group Leadership Team as of 1 November 2020. He joined Stora Enso in 2017, first as SVP Controlling, Strategy and IT for Consumer Board division. Since December 2019, he has worked as Chief Strategy and Innovation Officer.

Teemu Salmi, CIO and Head of IT & Digitalisation, was appointed as a member of the Group Leadership Team as of 1 November 2020. He joined Stora Enso in 2017.

Major events in 2020

Decisions of Annual General Meeting in 2020 and dividend payment

Stora Enso's Annual General Meeting (AGM) was held on 4 June 2020 at the Company's Head Office in Helsinki, Finland. In order to prevent the spread of the Covid-19 pandemic, a shareholder or his/her proxy representative could not be present at the venue of the meeting.

The AGM approved the proposal by the Board of Directors that the Company distributes a dividend of EUR 0.15 per share for the year 2019. In addition, the AGM approved the proposal that the Board of Directors to decide at its discretion on the payment of dividend up to a maximum of EUR 0.35 per share. In December, Stora Enso Oyj's Board of Directors decided that a second dividend instalment of EUR 0.15 per share would be paid on 17 December 2020. Following the second dividend payment, the total dividend for the financial year 2019 was EUR 0.30 per share.

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

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

Chair	EUR 197 000 (2019: EUR 192 000)
Vice Chair	EUR 112 000 (2019: EUR 109 000)
Members	EUR 76 000 (2019: EUR 74 000)

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 shall 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 (chair), Jorma Eloranta, Elisabeth Fleuriot and Hock Goh as members of the Financial and Audit Committee.

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

Christiane Kuehne (chair), Håkan Buskhe and Mikko Helander were elected members of the Sustainability and Ethics Committee.

Shareholders' Nomination Board

The Shareholders' Nomination Board, established by Stora Enso's Annual General Meeting (AGM), was appointed in September and it consists of the same members as for the previous period: Jorma Eloranta (Chair of Stora Enso's Board of Directors), Hans Stråberg (Vice Chair of Stora Enso's Board of Directors), Harri Sailas (Chair of the Board of Directors of Solidium Oy), and Marcus Wallenberg (Chair of the Board of Directors of FAM AB). The Shareholders' Nomination Board has elected Marcus Wallenberg as its Chair.

The Shareholders' Nomination Board proposes to the AGM to be held on 19 March 2021 that the Company's Board of Directors shall have nine (9) members.

The Shareholders' Nomination Board proposes that of the current members of the Board of Directors, Håkan Buskhe, Elisabeth Fleuriot, Hock Goh, Mikko Helander, Christiane Kuehne, Antti Mäkinen and Richard Nilsson be re-elected members of the Board of Directors until the end of the following AGM and that Helena Hedblom and Hans Sohlström be elected new members of the Board of Directors for the same term of office.

The Shareholders' Nomination Board proposes that Antti Mäkinen be elected Chair and Håkan Buskhe be elected Vice Chair of the Board of Directors. Jorma Eloranta and Hans Stråberg have announced that they are not available for re-election to the Board of Directors.

Annual General Meeting 2021

Stora Enso Oyj's Annual General Meeting (AGM) will be held on Friday 19 March 2021.

The Company will publish the invitation to the Annual General Meeting 2021 on or about 11 February 2021 with more detailed information on the participation and voting at the meeting. More information is available at storaenso.com/agm

The proposals by the Shareholders' Nomination Board to the AGM 2021 have been released on 9 December 2020 and the proposals by the Board of Directors on 29 January 2021. Stora Enso Oyj's annual accounts, the report of the Board of Directors and the auditor's report for 2020 will be published at storaenso.com/annualreport during the week commencing 8 February.

The Annual General Meeting 2021 will be held with exceptional procedures based on the temporary legislative act to limit the spread of the Covid-19 pandemic approved by the Finnish Parliament.

The Board of Directors' proposal for the payment of dividend

The Board of Directors proposes to the AGM that a dividend of EUR 0.30 per share be distributed on the basis of the balance sheet adopted for the year 2020. The Board of Directors has assessed the Company's financial situation and liquidity before making the proposal. There have been no material changes in the parent company's financial position since 31 December 2020, the liquidity of the parent company remains good and the proposed dividend does not risk the solvency of the company. Stora Enso's policy is to distribute 50% of earnings per share (EPS) excluding fair valuation over the cycle. In 2020, EPS excluding fair valuation was EUR 0.45.

The dividend would be paid to shareholders who on the record date of the dividend payment, 23 March 2021, are recorded in the shareholders' register maintained by Euroclear Finland Oy or in the separate register of shareholders maintained by Euroclear Sweden AB for Euroclear Sweden registered shares. Dividends payable to Euroclear Sweden registered shares will be forwarded by Euroclear Sweden AB and paid in Swedish crowns. Dividends payable to ADR holders will be forwarded by Citibank N.A. and paid in US dollars.

The Board of Directors proposes to the AGM that the dividend be paid on or about 30 March 2021.

Share capital and shareholdings

During the fourth quarter of 2020, the conversions of 311 A shares into R shares were recorded in the Finnish trade register. During 2020, the conversions of 2 419 A shares into R shares were recorded in the Finnish trade register.

On 31 December 2020, Stora Enso had 176 254 415 A shares and 612 365 572 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 237 490 972.

Events after the period

On 20 January 2021, the Court of Justice of the European Union has given a preliminary ruling (Lexel AB -case, C-484/19) which might have an impact on Stora Enso's pending disputes concerning the deduction of interest expenses in Sweden.

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, 29 January 2021

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 2019 with the exception of new and amended standards applied to the annual periods beginning on 1 January 2020 and changes in accounting principles described below.

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.

Changes in accounting principles

Valuation of Nordic forest assets

Stora Enso changed the valuation method for its forest assets and the accounting principle for forest land in the Nordics at the end of 2020. Forest assets are defined as biological assets (standing growing trees) and the related forest land. As a result of the valuation method change, the forest assets in Sweden are valued using a market approach. Due to the change in accounting principle, the forest land in Sweden and Finland are accounted for under the revaluation method instead of cost method.

Forest assets in Sweden are valued by using a market approach method based on the forest market transactions in the areas where Stora Enso's forests are located. In Sweden, reliable market transaction data is available and provides a more transparent and observable valuation basis. The total forest assets net cash flows consist of cash flows related to standing trees (biological assets) and separate cash flows regarding forest land. The standing trees valuation is computed based on a discounted cash flow (DCF) method and using a discount rate implied by the market transactions in accordance IAS 41 Agriculture standard. The discount rate is determined as the rate at which the market transaction prices match the total forest assets cash flows. For forest land, previously accounted at cost, the revaluation method is applied as defined in IAS 16 Property, plant and equipment standard. Forest land is revalued using a DCF method based on future net cash flow streams related to trees to-be-planted in the future, as well as other land related income, such as hunting rights, wind power leases and soil material sales. The discount rate is the same for biological assets and forest land.

For the other Nordic forest assets, owned mainly in Finland through Group's 41% shareholding in the equity accounted investment Tornator, the market approach is not considered to be an accurate valuation method, as reliable market data is not available with enough details. The discounted cash flow method will continue to be used for valuation of biological assets, where the discount rate applied is determined using the weighted average cost of capital method. The forest land, previously accounted at cost, is revalued by using DCF method based on its future net cash flow streams related to trees to-be-planted in the future, as well as other related income.

For the plantation forests, there are no changes in accounting principles or in the valuation method, as there is no reliable market transaction data available. Therefore in plantations, biological assets are continued to be valued using DCF method and the related forest land is continued to be accounted at cost. Plantation forest assets are classified as a separate asset class as compared to Nordic forest land to reflect the different nature, usage and characteristics. The main difference is the short-term growing cycle of 6–12 years in plantations versus the long-term growing cycle of 60–100 years in Nordic forests. There are also differences in regeneration methods, forest management and use of the assets for other purposes.

The changes in accounting principles of the Swedish forest assets increased the carrying amount of forest land from EUR 324 million to EUR 1 829 million, resulting in EUR 1 504 million increase in forest land, EUR 1 195 increase in Other Comprehensive Income (OCI, revaluation reserve) and EUR 310 million increase in the deferred tax liability. The accounting principle change related to other Nordic forest assets, owned mainly in Finland, is not considered to be material. The increase in forest land assets is recognised in OCI net of deferred taxes and accumulated in revaluation reserve in equity and does not have impact on the income statement. The fair value changes in biological assets continue to be recognised in the income statement. The comparative periods have not been restated and in the comparative periods forest land is measured at cost.

The Group has also changed its forest land presentation principles. Previously forest land assets were included in the statement of financial position on the line Property, plant and equipment. In accordance with new presentation principles, forest land assets and corresponding comparative figures are presented on a separate line in the statement of financial position.

Accounting implications of the effects of Covid-19

The Group has assessed the potential accounting implications of decreased economic activity as a result of Covid-19 pandemic. The Group has also assessed impact on significant accounting estimates and management judgement and identified certain items, which have been evaluated in more detail. The review of significant estimates and judgement did not result in any material adjustments to the carrying amounts of assets and liabilities or amounts recognised in income statement.

IAS 36 requires non-financial assets to be tested for impairment whenever there is an indicator those assets might be impaired and in addition goodwill is tested at least every year. The uncertainty in the economic environment may decrease the reliability of long-term forecasts used in the impairment testing models. Based on the current estimates of expected performance, no impairment needs were identified at the end of the quarter.

The Group reviewed and updated its expected credit loss model for trade receivables to take into account the macro-economic developments in 2020. This change did not result in a significant increase of credit loss allowances for trade receivables but the credit risk may increase if the current trading conditions deteriorate further.

There was a slight but not material increase in the valuation allowance made for old, slow moving and obsolete finished goods and spare parts.

The Group's units in some countries have received various forms of assistance from the authorities intended to support employment or temporarily improve cash flows. The savings in income statement or cash flow improvements from the obtained relief measures were not material for Stora Enso Group during 2020.

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 IAC are capital gains and losses, impairments or impairment reversals, disposal gains and losses relating to Group companies, provisions for planned restructurings, environmental provisions, changes in depreciation due to 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, non-operational fair valuation changes of biological assets, adjustments for differences between fair value and acquisition cost of forest assets upon disposal and the Group's share of income tax and net financial items of EAI. From 1 January 2020 onwards, the changes in the fair valuation of biological assets are categorized in non-operational and operational fair value changes. Non-operational fair value changes of biological assets reflect changes made to valuation assumptions and parameters, usually during the annual valuation process.

Operational fair value changes of biological assets are included in Operational EBITDA and contain all other fair value changes, mainly due to inflation and differences in actual harvesting levels compared to the harvesting plan. The previous periods have been restated.

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 EAIs.

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 2020

- Amended standards and interpretations do not have material effect on the Group.

Future standard changes endorsed by the EU but not yet effective in 2020

- No future standard changes endorsed by the EU which would have material effect on the Group.

Condensed consolidated income statement

EUR million	Q4/20	Q4/19	Q3/20	2020	2019
Sales	2 154	2 411	2 079	8 553	10 055
Other operating income	34	55	33	147	165
Change in inventories of finished goods and WIP	-49	-88	-44	-84	-102
Materials and services	-1 296	-1 435	-1 210	-5 043	-5 964
Freight and sales commissions	-198	-225	-190	-806	-904
Personnel expenses	-332	-347	-294	-1 270	-1 331
Other operating expenses	-96	-149	-87	-394	-686
Share of results of equity accounted investments	11	166	7	-1	229
Change in net value of biological assets	234	482	3	428	442
Depreciation, amortisation and impairment charges	-174	-189	-152	-609	-597
Operating Profit	289	680	145	922	1 305
Net financial items	-30	-34	-31	-150	-168
Profit before Tax	260	646	115	773	1 137
Income tax	-22	-127	-28	-156	-281
Net Profit for the Period	237	519	86	617	856
Attributable to					
Owners of the Parent	240	520	88	626	880
Non-controlling interests	-2	0	-2	-9	-24
Net Profit for the Period	237	519	86	617	856
Earnings per Share					
Basic earnings per share, EUR	0.30	0.66	0.11	0.79	1.12
Diluted earnings per share, EUR	0.30	0.66	0.11	0.79	1.12

Consolidated statement of comprehensive income

EUR million	Q4/20	Q4/19	Q3/20	2020	2019
Net profit for the period	237	519	86	617	856
Other Comprehensive Income (OCI)					
Items that will Not be Reclassified to Profit and Loss					
Equity instruments at fair value through OCI	6	32	38	-136	109
Actuarial gains and losses on defined benefit plans	75	-73	-20	20	-78
Revaluation of forest land	1 504	0	0	1 504	0
Share of OCI of Equity accounted investments (EAI)	12	0	0	12	0
Income tax relating to items that will not be reclassified	-325	4	4	-315	6
	1 273	-37	22	1 086	37
Items that may be Reclassified Subsequently to Profit and Loss					
Cumulative translation adjustment (CTA)	117	26	-133	-143	206
Net investment hedges and loans	10	7	10	16	-9
Cash flow hedges and cost of hedging	52	46	15	54	-14
Share of OCI of Non-controlling Interests (NCI)	0	1	1	1	0
Share of OCI of Equity accounted investments (EAI)	0	0	0	0	11
Income tax relating to items that may be reclassified	-13	-10	-4	-15	2
	167	70	-111	-87	196
Total Comprehensive Income	1 678	553	-2	1 616	1 089
Attributable to					
Owners of the Parent	1 680	553	-2	1 625	1 113
Non-controlling interests	-2	0	-1	-9	-24
Total Comprehensive Income	1 678	553	-2	1 616	1 089

CTA = Cumulative Translation Adjustment

OCI = Other Comprehensive Income

EAI = Equity Accounted Investments

Condensed consolidated statement of financial position

EUR million		31 Dec 2020	31 Dec 2019
Assets			
Goodwill	O	281	302
Other intangible assets	O	134	169
Property, plant and equipment	O	5 007	5 101
Right-of-use assets	O	452	508
		5 874	6 080
Forest assets	O	6 256	4 136
Biological assets	O	4 250	3 627
Forest land	O	2 005	509
Emission rights	O	36	37
Equity accounted investments	O	456	483
Listed securities	I	16	12
Unlisted securities	O	401	526
Non-current interest-bearing receivables	I	93	72
Deferred tax assets	T	117	81
Other non-current assets	O	28	37
Non-current Assets		13 276	11 463
Inventories	O	1 270	1 391
Tax receivables	T	14	11
Operative receivables	O	1 145	1 289
Interest-bearing receivables	I	66	23
Cash and cash equivalents	I	1 661	876
Current Assets		4 155	3 590
Total Assets		17 431	15 053
Equity and Liabilities			
Owners of the Parent		8 809	7 429
Non-controlling Interests		-16	-7
Total Equity		8 793	7 423
Post-employment benefit obligations	O	473	458
Provisions	O	102	110
Deferred tax liabilities	T	1 332	875
Non-current interest-bearing liabilities	I	3 822	3 232
Other non-current operative liabilities	O	13	40
Non-current Liabilities		5 743	4 713
Current portion of non-current debt	I	472	376
Interest-bearing liabilities	I	456	572
Bank overdrafts	I	6	13
Provisions	O	46	55
Other operative liabilities	O	1 837	1 854
Tax liabilities	T	78	48
Current Liabilities		2 895	2 917
Total Liabilities		8 637	7 630
Total Equity and Liabilities		17 431	15 053

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	2020	2019
Cash Flow from Operating Activities		
Operating profit	922	1 305
Adjustments for non-cash items ²	226	446
Change in net working capital	195	240
Cash Flow Generated by Operations²	1 344	1 991
Net financial items paid	-134	-153
Income taxes paid, net	-82	-178
Net Cash Provided by Operating Activities²	1 128	1 660
Cash Flow from Investing Activities		
Acquisition of subsidiary shares and business operations, net of acquired cash	0	-464
Acquisitions of equity accounted investments	-2	-7
Acquisitions of unlisted securities	-14	0
Cash flow on disposal of subsidiary shares and business operations, net of disposed cash	-3	-19
Cash flow on disposal of unlisted securities	1	6
Cash flow on disposal of intangible assets and property, plant and equipment	17	12
Capital expenditure ²	-661	-598
Proceeds from non-current receivables, net	-18	-18
Net Cash Used in Investing Activities²	-681	-1 089
Cash Flow from Financing Activities		
Proceeds from issue of new long-term debt	1 081	870
Repayment of long-term debt and lease liabilities	-399	-1 284
Change in short-term borrowings	-99	-33
Dividends paid	-223	-394
Buy-out of interest in subsidiaries from non-controlling interests	0	-8
Equity injections from, less dividends to, non-controlling interests	0	-4
Purchase of own shares ¹	-6	-3
Net Cash Provided by Financing Activities	354	-856
Net Change in Cash and Cash Equivalents	801	-285
Translation adjustment	-9	19
Net cash and cash equivalents at the beginning of period	863	1 128
Net Cash and Cash Equivalents at Period End	1 655	863
Cash and Cash Equivalents at Period End	1 661	876
Bank Overdrafts at Period End	-6	-13
Net Cash and Cash Equivalents at Period End	1 655	863
Acquisitions		
Cash and cash equivalents, net of bank overdrafts	0	64
Intangible assets and property, plant and equipment	25	2 964
Operating working capital	0	-29
Tax assets and liabilities	-5	-605
Interest-bearing assets and liabilities	0	-802
Fair value of Net Assets Acquired	20	1 592
Purchase consideration on acquisitions, cash part	0	527
Fair value of Net Assets Acquired	-20	-1 592
Goodwill	-20	-1 065
Disposal of Group companies and business operations		
Cash and cash equivalents	2	4
Other intangible assets, property, plant and equipment and biological assets	1	8
Working capital	1	3
Interest-bearing assets and liabilities	-4	-43
Non-controlling interests	0	11

Net Assets in Divested Companies	-1	-16
Gain on sale, excluding CTA release and transaction costs	0	1
Total Disposal Consideration	-1	-15
Cash part of consideration	-1	-15
Total Disposal Consideration	-1	-15

¹ Own shares purchased for the Group's share award programme. The Group did not hold any of its own shares at 31 December 2020.

² Comparative 2019 figures have been restated as described in our [release](#) from 19 March 2020.

Statement of changes in equity

EUR million	Fair Value Reserve											Attributable to Owners of the Parent	Non-controlling Interests	Total
	Share Capital	Share Premium and Reserve fund	Invested Non-Restricted Equity Fund	Treasury Shares	Step Acquisition Revaluation Surplus	Equity instruments through OCI	Cash Flow Hedges	Revaluation reserve	OCI of Equity Accounted Investments	CTA and Net Investment Hedges and loans	Retained Earnings			
Balance at 1 January 2019	1 342	77	633	—	4	304	-7	—	-11	-335	4 706	6 714	18	6 732
Net profit for the period	—	—	—	—	—	—	—	—	—	—	880	880	-24	856
OCI before tax	—	—	—	—	—	109	-14	—	11	197	-78	225	—	225
Income tax relating to OCI	—	—	—	—	—	—	1	—	—	1	6	9	—	9
Total Comprehensive Income	—	—	—	—	—	109	-13	—	11	198	808	1 113	-24	1 089
Dividend	—	—	—	—	—	—	—	—	—	—	-394	-394	-1	-395
Acquisitions and disposals	—	—	—	—	—	—	—	—	—	—	—	—	1	1
Purchase of treasury shares	—	—	—	-4	—	—	—	—	—	—	—	-4	—	-4
Share-based payments	—	—	—	4	—	—	—	—	—	—	-3	—	—	—
Balance at 31 December 2019	1 342	77	633	—	4	413	-20	—	—	-136	5 116	7 429	-7	7 423
Net profit for the period	—	—	—	—	—	—	—	—	—	—	626	626	-9	617
OCI before tax	—	—	—	—	—	-136	54	1 504	12	-127	20	1 328	1	1 329
Income tax relating to OCI	—	—	—	—	—	-1	-11	-310	—	-4	-5	-330	—	-330
Total Comprehensive Income	—	—	—	—	—	-137	43	1 195	12	-131	642	1 625	-9	1 616
Dividend	—	—	—	—	—	—	—	—	—	—	-237	-237	—	-237
Acquisitions and disposals	—	—	—	—	-4	—	—	—	—	—	4	—	—	—
Purchase of treasury shares	—	—	—	-6	—	—	—	—	—	—	—	-6	—	-6
Share-based payments	—	—	—	6	—	—	—	—	—	—	-8	-3	—	-3
Balance at 31 December 2020	1 342	77	633	—	—	277	23	1 195	12	-267	5 518	8 809	-16	8 793

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 forest assets

EUR million	2020	2019
Carrying value at 1 January	10 216	6 187
Additions in right-of-use assets due to adoption of IFRS 16	0	530
Additions in tangible and intangible assets	589	550
Additions in right-of-use assets	39	29
Additions in biological assets	59	77
Depletion of capitalised silviculture costs	-41	-51
Acquisition of subsidiary companies	5	2 988
Disposals	-13	-11
Disposals of subsidiary companies	-3	-8
Depreciation and impairment	-609	-597
Fair valuation of forest assets	1 973	493
Translation difference and other	-86	29
Statement of Financial Position Total	12 130	10 216

The value of forest assets, including leased land and Stora Enso's share of Tornator's forest assets, increased by EUR 2 139 million in 2020. The total forest asset value, including leased forest land, was EUR 7 314 (5 175) million. The increase during 2020 in total forest asset value is mainly related to valuation and accounting principles changes. More detailed information related to the accounting principle change is presented in the chapter [Basis of Preparation](#).

The fair value of biological assets, including Stora Enso's share of Tornator, increased by EUR 648 million in 2020. The biological asset fair value was EUR 5 028 (4 380) million. The fair value changes in biological assets are recognised in the income statement.

The value of forest land, including leased land and Stora Enso's share of Tornator, increased by EUR 1 491 million in 2020. The value of forest land was EUR 2 286 (795) million. The increase in forest land assets is recognised in OCI net of deferred taxes and accumulated in revaluation reserve in equity and does not have impact on the income statement.

Borrowings

EUR million	31 Dec 2020	31 Dec 2019
Bond loans	2 789	1 978
Loans from credit institutions	1 083	1 162
Lease liabilities	397	440
Long-term derivative financial liabilities	21	24
Other non-current liabilities	5	5
Non-current interest bearing liabilities including current portion	4 294	3 608
Short-term borrowings	413	516
Interest payable	35	33
Short-term derivative financial liabilities	9	23
Bank overdrafts	6	13
Total Interest-bearing Liabilities	4 756	4 192

EUR million	2020	2019
Carrying value at 1 January	4 192	3 344
Additions in lease liabilities due to adoption of IFRS 16	0	525
Acquisition of subsidiary companies	0	793
Proceeds of new long-term debt	1 081	870
Additions in lease liabilities	39	29
Repayment of long-term debt	-333	-1 216
Repayment of lease liabilities and interest	-85	-88
Change in short-term borrowings and interest payable	-101	-58
Change in derivative financial liabilities	-17	-21
Translation differences and other	-20	13
Total Interest-bearing Liabilities	4 756	4 192

Commitments and contingencies

EUR million	31 Dec 2020	31 Dec 2019
On Own Behalf		
Mortgages	0	2
Other commitments	14	3
On Behalf of Equity Accounted Investments		
Guarantees	2	4
On Behalf of Others		
Guarantees	6	6
Other commitments	36	13
Total	58	28
Mortgages	0	2
Guarantees	8	10
Other commitments	50	17
Total	58	28

Capital commitments

EUR million	31 Dec 2020	31 Dec 2019
Total	207	223

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	2020	Q4/20	Q3/20	Q2/20	Q1/20	2019	Q4/19	Q3/19	Q2/19	Q1/19
Packaging Materials	3 115	759	771	821	764	3 254	770	805	848	832
Packaging Solutions	594	160	145	141	149	698	170	167	181	180
Biomaterials	1 193	314	305	288	286	1 464	341	331	394	398
Wood Products	1 386	360	341	347	338	1 569	374	380	412	403
Forest	2 046	527	457	519	542	2 321	558	518	603	642
Paper	1 979	476	468	445	591	2 856	694	690	712	760
Other	928	231	230	221	246	1 076	262	268	265	280
Inter-segment sales	-2 687	-673	-637	-669	-709	-3 184	-757	-759	-807	-861
Total	8 553	2 154	2 079	2 114	2 207	10 055	2 411	2 402	2 608	2 635

Comparative 2019 figures have been restated as described in our [release](#) from 19 March 2020. 2019 sales for Packaging Materials, Packaging Solutions and Inter-Segment sales have been recalculated versus the amounts presented in the release.

Sales by segment – external

EUR million	2020	Q4/20	Q3/20	Q2/20	Q1/20	2019	Q4/19	Q3/19	Q2/19	Q1/19
Packaging Materials	2 999	729	742	793	735	3 091	732	767	805	787
Packaging Solutions	578	156	140	137	145	680	165	163	177	175
Biomaterials	1 025	278	267	248	233	1 193	284	268	323	318
Wood Products	1 295	335	322	323	316	1 457	349	356	382	370
Forest	698	182	146	175	194	790	193	164	210	224
Paper	1 931	466	455	432	578	2 800	681	675	699	745
Other	27	8	6	6	7	45	7	10	13	15
Total	8 553	2 154	2 079	2 114	2 207	10 055	2 411	2 402	2 608	2 635

Comparative 2019 figures have been restated as described in our [release](#) from 19 March 2020.

Disaggregation of revenue

EUR million	2020	Q4/20	Q3/20	Q2/20	Q1/20	2019	Q4/19	Q3/19	Q2/19	Q1/19
Product sales	8 460	2 131	2 056	2 087	2 187	9 935	2 389	2 372	2 567	2 608
Service sales	93	23	23	27	20	120	22	31	40	27
Total	8 553	2 154	2 079	2 114	2 207	10 055	2 411	2 402	2 608	2 635

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		2020	Q4/20	Q3/20	Q2/20	Q1/20	2019	Q4/19	Q3/19	Q2/19	Q1/19
Packaging Materials	Product sales	3 103	755	769	819	761	3 240	767	801	844	828
	Service sales	11	4	2	2	3	14	3	4	4	4
Packaging Solutions	Product sales	593	160	145	141	148	696	169	166	181	180
	Service sales	1	0	0	0	0	2	1	0	0	0
Biomaterials	Product sales	1 164	309	297	281	277	1 436	336	324	386	391
	Service sales	29	5	7	8	8	27	5	8	8	7
Wood Products	Product sales	1 362	354	334	341	334	1 550	368	375	406	400
	Service sales	24	6	7	6	5	19	6	5	6	3
Forest	Product sales	2 019	521	449	510	539	2 276	551	503	586	636
	Service sales	27	7	7	10	3	45	7	15	17	6
Paper	Product sales	1 971	476	465	442	588	2 842	690	687	708	757
	Service sales	8	0	2	4	2	14	4	3	4	3
Other	Product sales	139	37	32	27	44	183	42	46	41	54
	Service sales	789	194	198	194	202	892	220	222	224	226
Inter-segment sales	Product sales	-1 893	-480	-436	-473	-504	-2 288	-533	-532	-585	-638
	Service sales	-795	-193	-201	-196	-204	-895	-224	-227	-222	-223
Total		8 553	2 154	2 079	2 114	2 207	10 055	2 411	2 402	2 608	2 635

Comparative 2019 figures have been restated as described in our [release](#) from 19 March 2020. 2019 sales for Packaging Materials, Packaging Solutions and Inter-Segment sales have been recalculated versus the amounts presented in the release.

Operational EBIT by segment

EUR million	2020	Q4/20	Q3/20	Q2/20	Q1/20	2019	Q4/19	Q3/19	Q2/19	Q1/19
Packaging Materials	403	67	111	130	95	339	57	86	98	98
Packaging Solutions	34	10	8	8	8	46	10	15	14	8
Biomaterials	9	-12	10	19	-7	233	-12	39	103	103
Wood Products	114	33	38	26	18	105	14	27	35	29
Forest	164	41	38	41	44	99	31	25	11	33
Paper	-38	-5	-16	-39	21	213	44	50	50	69
Other	-35	-16	-13	-7	0	-32	-19	2	-11	-4
Operational EBIT	650	118	175	178	180	1 003	124	245	299	335
Fair valuations and non-operational items ¹	362	217	-4	55	94	494	588	-39	-37	-18
Items affecting comparability	-90	-45	-25	-7	-12	-192	-32	-36	-120	-4
Operating Profit (IFRS)	922	289	145	226	262	1 305	680	170	142	313
Net financial items	-150	-30	-31	-36	-53	-168	-34	-55	-48	-31
Profit before Tax	773	260	115	190	209	1 137	646	115	93	282
Income tax expense	-156	-22	-28	-46	-59	-281	-127	-57	-41	-56
Net Profit	617	237	86	144	149	856	519	59	52	226

¹ Fair valuations and non-operational items include CO₂ emission rights, non-operational fair valuation changes of biological assets, adjustments for differences between fair value and acquisition cost of forest assets upon disposal and the Group's share of income tax and net financial items of EAI. From 1 January 2020 onwards, the changes in the fair valuation of biological assets are categorized in non-operational and operational fair value changes. Non-operational fair value changes of biological assets reflect changes made to valuation assumptions and parameters, usually during the annual valuation process. Operational fair value changes of biological assets are included in Operational EBITDA and contain all other fair value changes, mainly due to inflation and differences in actual harvesting levels compared to the harvesting plan. The previous periods have been restated.

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

EUR million	2020	Q4/20	Q3/20	Q2/20	Q1/20	2019	Q4/19	Q3/19	Q2/19	Q1/19
Impairments and impairment reversals	-72	-45	-17	-5	-5	-62	-51	-14	6	-3
Restructuring costs excluding impairments	-23	-7	-10	-1	-5	-52	-15	-5	-31	-1
Acquisitions and disposals	6	8	0	0	-2	-59	44	-15	-88	0
Other	0	-1	2	-1	0	-19	-9	-2	-8	0
Total IAC on Operating Profit	-90	-45	-25	-7	-12	-192	-32	-36	-120	-4
Fair valuations and non-operational items	362	217	-4	55	94	494	588	-39	-37	-18
Total	271	172	-29	48	82	302	556	-75	-157	-22

Items affecting comparability had a negative impact on the operating profit of EUR 45 (negative EUR 32) million. The IACs relate mainly to asset write downs and provisions recognised in Biomaterials division and asset disposal gains recognised in Packaging Materials division.

Fair valuations and non-operational items had a positive net impact on the operating profit of EUR 217 (positive EUR 588) million. The impact came mainly from the biological asset fair valuation increases in Sweden. The biological asset valuation increase (EUR 234 million) was mainly due to lower discount rate used in the valuation model, related to accounting principle change and due to updates to other valuation parameters.

Items affecting comparability (IAC) by segment

EUR million	2020	Q4/20	Q3/20	Q2/20	Q1/20	2019	Q4/19	Q3/19	Q2/19	Q1/19
Packaging Materials	0	7	-2	0	-5	6	-3	0	13	-4
Packaging Solutions	-6	-1	-5	0	0	-10	-4	-6	0	0
Biomaterials	-53	-53	0	0	0	-51	-51	0	0	0
Wood Products	-3	0	0	-1	-2	-13	-2	0	-10	0
Forest	0	0	0	0	0	-41	54	-4	-91	0
Paper	-21	3	-14	-5	-5	-58	-11	-21	-27	0
Other	-7	-1	-5	-1	0	-25	-14	-5	-5	0
IAC on Operating Profit	-90	-45	-25	-7	-12	-192	-32	-36	-120	-4
IAC on tax	19	10	5	1	2	13	5	2	6	1
IAC on Net Profit	-71	-35	-20	-5	-10	-180	-27	-35	-115	-3
Attributable to:										
Owners of the Parent	-71	-35	-20	-5	-10	-180	-27	-35	-115	-3
Non-controlling interests	0	0	0	0	0	0	0	0	0	0
IAC on Net Profit	-71	-35	-20	-5	-10	-180	-27	-35	-115	-3

Fair valuations and non-operational items¹ by segment

EUR million	2020	Q4/20	Q3/20	Q2/20	Q1/20	2019	Q4/19	Q3/19	Q2/19	Q1/19
Packaging Materials	-12	-10	0	-1	-1	7	7	0	0	0
Packaging Solutions	0	0	0	0	0	0	0	0	0	0
Biomaterials	13	10	2	0	1	-2	-1	-2	1	0
Wood Products	0	0	0	0	0	0	0	0	0	0
Forest	360	226	-10	55	89	489	582	-35	-34	-24
Paper	2	-9	4	2	5	-1	1	-3	-3	5
Other	-1	0	0	-1	0	1	0	1	-1	0
FV and Non-operational Items on Operating Profit	362	217	-4	55	94	494	588	-39	-37	-18

¹ Fair valuations and non-operational items include CO₂ emission rights, non-operational fair valuation changes of biological assets, adjustments for differences between fair value and acquisition cost of forest assets upon disposal and the Group's share of income tax and net financial items of EAI. From 1 January 2020 onwards, the changes in the fair valuation of biological assets are categorized in non-operational and operational fair value changes. Non-operational fair value changes of biological assets reflect changes made to valuation assumptions and parameters, usually during the annual valuation process. Operational fair value changes of biological assets are included in Operational EBITDA and contain all other fair value changes, mainly due to inflation and differences in actual harvesting levels compared to the harvesting plan. The previous periods have been restated.

Operating profit/loss by segment

EUR million	2020	Q4/20	Q3/20	Q2/20	Q1/20	2019	Q4/19	Q3/19	Q2/19	Q1/19
Packaging Materials	391	64	108	129	89	352	61	86	110	94
Packaging Solutions	28	8	3	8	8	36	6	9	14	8
Biomaterials	-31	-55	12	19	-6	180	-65	37	104	103
Wood Products	111	33	38	25	16	92	11	27	25	29
Forest	524	267	28	96	133	547	667	-14	-115	9
Paper	-58	-11	-26	-42	21	154	33	26	20	74
Other	-42	-17	-17	-9	0	-56	-34	-2	-17	-4
Operating Profit (IFRS)	922	289	145	226	262	1 305	680	170	142	313
Net financial items	-150	-30	-31	-36	-53	-168	-34	-55	-48	-31
Profit before Tax	773	260	115	190	209	1 137	646	115	93	282
Income tax expense	-156	-22	-28	-46	-59	-281	-127	-57	-41	-56
Net Profit	617	237	86	144	149	856	519	59	52	226

Key exchange rates for the euro

One Euro is	Closing Rate		Average Rate (Year-to-date)	
	31 Dec 2020	31 Dec 2019	31 Dec 2020	31 Dec 2019
SEK	10.0343	10.4468	10.4881	10.5868
USD	1.2271	1.1234	1.1413	1.1195
GBP	0.8990	0.8508	0.8892	0.8773

Transaction risk and hedges in main currencies as at 31 December 2020

EUR million	EUR	USD	SEK	GBP	Other	Total
Sales during 2020	4 704	1 667	996	278	908	8 553
Costs during 2020	-3 902	-475	-1 898	-14	-1 161	-7 449
Net amount	802	1 192	-901	264	-253	1 104
Estimated annual operative transaction risk exposure from cash flows for the next 12 months ¹	920	1 330	-197	222		
Cash flow hedges for the next 12 months as at 31 December 2020	-433	-629	94	-97		
Hedge ratio for the next 12 months as at 31 December 2020	47%	47%	48%	44%		
Effect of 10% currency strengthening on Operational EBIT ²	92	133	-20	22		

Sales and costs figures in the above table also include transactions denominated in the functional currencies of Stora Enso group companies whereas those flows do not constitute a foreign-currency transaction risk exposure for cash flow hedging purposes.

¹ Cash flows are forecasted highly probable foreign exchange net operating cash flows. The exposure presented in the EUR column relates to operative transaction risk exposure from EUR denominated cash flows in Group companies located in Sweden, Czech Republic and Poland with functional currency other than EUR.

² 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 assumes no other changes occur than exchange rate movement in an exposure 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. The instruments carried at fair value in the following tables are measured at fair value on a recurring basis.

Carrying amounts of financial assets and liabilities by measurement and fair value categories: 31 December 2020

EUR million	Amortised cost	Fair value through OCI	Fair value through income statement	Total carrying amount	Fair value	Fair value hierarchy		
						Level 1	Level 2	Level 3
Financial assets								
Listed securities	—	16	—	16	16	16	—	—
Unlisted securities	—	394	7	401	401	—	—	401
Non-current interest-bearing receivables	91	2	—	93	93	—	2	—
Trade and other operative receivables	814	44	—	858	858	—	44	—
Short-term interest-bearing receivables	1	60	6	66	66	—	65	—
Cash and cash equivalents	1 661	—	—	1 661	1 661	—	—	—
Total	2 566	515	13	3 094	3 094	16	111	401

EUR million	Amortised cost	Fair value through OCI	Fair value through income statement	Total carrying amount	Fair value	Fair value hierarchy		
						Level 1	Level 2	Level 3
Financial liabilities								
Non-current interest-bearing liabilities	3 801	19	2	3 822	4 233	—	21	—
Current portion of non-current debt	472	—	—	472	472	—	—	—
Short-term interest-bearing liabilities	444	11	1	456	456	—	12	—
Trade and other operative payables	1 547	—	—	1 547	1 547	—	—	—
Bank overdrafts	6	—	—	6	6	—	—	—
Total	6 270	30	3	6 303	6 715	—	33	—

Hedge accounted derivatives are presented under fair value through OCI and non-hedge accounted derivatives under fair value through income statement categories in the above tables for financial assets and liabilities.

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

			Fair value through income statement	Total carrying amount	Fair value	Fair value hierarchy		
EUR million	Amortised cost	Fair value through OCI				Level 1	Level 2	Level 3
Financial assets								
Listed securities	—	12	—	12	12	12	—	—
Unlisted securities	—	522	3	526	526	—	—	526
Non-current interest-bearing receivables	71	1	—	72	72	—	1	—
Trade and other operative receivables	930	38	—	968	968	—	38	—
Short-term interest-bearing receivables	3	17	3	23	23	—	20	—
Cash and cash equivalents	876	—	—	876	876	—	—	—
Total	1 879	591	7	2 477	2 477	12	59	526

			Fair value through income statement	Total carrying amount	Fair value	Fair value hierarchy		
EUR million	Amortised cost	Fair value through OCI				Level 1	Level 2	Level 3
Financial liabilities								
Non-current interest-bearing liabilities	3 207	21	4	3 232	3 549	—	24	—
Current portion of non-current debt	376	—	—	376	376	—	—	—
Short-term interest-bearing liabilities	546	24	1	572	572	—	26	—
Trade and other operative payables	1 574	—	25	1 598	1 598	—	—	25
Bank overdrafts	13	—	—	13	13	—	—	—
Total	5 716	45	30	5 790	6 107	—	50	25

Hedge accounted derivatives are presented under fair value through OCI and non-hedge accounted derivatives under fair value through income statement categories in the above tables for financial assets and liabilities.

Reconciliation of level 3 fair value measurement of financial assets and liabilities: 31 December 2020

EUR million	2020	2019
Financial assets		
Opening balance at 1 January	526	422
Gains/losses recognised in income statement	1	0
Gains/losses recognised in other comprehensive income	-140	109
Additions	15	0
Disposals	-1	-5
Closing balance	401	526

EUR million	2020	2019
Financial liabilities		
Opening balance at 1 January	-25	-21
Gains/losses recognised in income statement	0	-4
Deductions	25	0
Closing balance	0	-25

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 3.69% 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 +43 million and -37 million, respectively. A +/- percentage point change in the discount rate would change the valuation by EUR -30 million and +90 million, respectively.

Stora Enso shares

Trading volume

	Helsinki		Stockholm	
	A share	R share	A share	R share
October	131 253	44 167 134	435 623	12 437 037
November	73 409	37 522 685	299 223	11 918 779
December	162 159	34 940 871	343 528	9 565 727
Total	366 821	116 630 690	1 078 374	33 921 543

Closing price

	Helsinki, EUR		Stockholm, SEK	
	A share	R share	A share	R share
October	13,15	12,53	135,40	130,55
November	14,70	14,17	147,80	144,05
December	15,90	15,65	159,20	157,30

Average number of shares

Million	Q4/20	Q4/19	Q3/20	2020	2019
Periodic	788.6	788.6	788.6	788.6	788.6
Cumulative	788.6	788.6	788.6	788.6	788.6
Cumulative, diluted	788.9	789.4	788.9	789.2	789.5

Calculation of key figures

Operational return on capital employed, operational ROCE (%)	100 x	$\frac{\text{Annualised operational EBIT}}{\text{Capital employed}^2}$
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 silviculture costs and damage to forests, 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. FV
Operational EBIT margin	Net debt/last 12 months' operational EBITDA ratio
Profit before tax excl. IAC and FV	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

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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 23 000 employees, and sales in over 50 countries. Our sales in 2020 were EUR 8.6 billion. Stora Enso shares are listed on Nasdaq Helsinki Oy (STEAV, 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.