

## Stora Enso Oyj

Rating Type	Rating	Outlook	Last Rating Action
Long-Term IDR	BBB-	Stable	New Rating 08 August 2018
<a href="#">Click here for full list of ratings.</a>			

## Financial Summary

(EURm)	Dec 2016	Dec 2017	Dec 2018F	Dec 2019F
Gross Revenue	9,802	10,045	10,629	10,685
Operating EBITDAR Margin (%)	12.5	14.4	18.1	18.2
FFO Margin (%)	11.1	11.6	14.7	14.7
FFO Fixed-Charge Coverage (x)	5.7	6.2	8.5	8.5
FFO Adjusted Leverage (x)	3.7	2.9	2.1	2.5
Source: Fitch				

Fitch Ratings assigned Finland-based forest products and packaging company Stora Enso Oyj a Long-Term Foreign-Currency Issuer Default Rating (IDR) of 'BBB-' in August 2018. The Outlook is Stable. Fitch also assigned Stora Enso senior unsecured ratings of 'BBB-'.

Stora Enso's ratings reflect its successful transformation towards growth businesses while limiting its exposure to the structurally declining paper market. The focus on renewable solutions for packaging, biomaterials and wood products has delivered both product and geographical diversification, delivering top-line growth and improving margins from 2017. Fitch-adjusted EBITDA and EBIT margins reached 14% and 9%, respectively, and the company achieved strong deleveraging, with funds from operations (FFO) adjusted net leverage of 2.6x at end-2017. Stora Enso's business profile benefits from a strong market position, a focus on rolling out new growth products and investing in R&D. Stora Enso is further supported by an improving financial profile with rapidly decreasing leverage, strong liquidity and cash flow coverage metrics.

## Key Rating Drivers

**New Products Drive Successful Transformation:** Stora Enso has successfully diversified its dependence on the declining paper sector early by growing into new products. Packaging, including consumer board for the liquid-, food-, pharmaceutical- and luxury- goods sectors as well as various packaging solutions (fibre-based board and corrugated packaging products), is now the largest contributor (45% of EBITDA).

Biomaterials also contribute with strong margins and include new bio-based products aimed at replacing plastic and other non-organic material. These new products benefit from the current trends of environmental awareness, increased urbanisation, a growing global middle class and digitalisation.

**Paper Provides Solid Cash Flow:** Stora Enso has managed the decline in the paper market successfully and maintained post-capex cash generation via high capacity utilisation. The company's volumes and sales of paper have decreased by close to 10% per year. This is a greater decline than the broader market contraction, because Stora Enso has closed or sold paper mills to adjust to full capacity utilisation. One paper mill has been converted into kraftliner production (for packaging material) and a similar conversion is planned for the Oulu fine paper mill. Margins have been preserved and, with limited new capex needs, the target for the paper business is to contribute to cash flow where funds will be invested to further diversify its product range.

**Management Committed to Lower Leverage:** Stora Enso has deleveraged substantially as recent large-scale capex projects have been completed, and the group is benefiting from the accompanying additional strong cash flow. FFO adjusted net leverage decreased to 2.6x at end-2017 from 3.4x at end-2015 and Fitch expects leverage to decrease further in 2018, which is stronger than the company's previous targets for leverage (net debt/operational

EBITDA) and net gearing at below 3.0x and 0.8x, respectively. New targets have been set at leverage below 2.0x and net gearing below 0.6x while the profitability target (return on capital employed above 13%) is unchanged.

**Securing Wood Supply:** Stora Enso has signed a letter of intent whereby it will transform its 49% ownership in Bergvik Skog (accounted for as an associated company) into a direct holding of 70% in the subsidiary Bergvik Vaest. This will increase net debt by EUR1.1 billion at inception, as Bergvik Vaest will be consolidated and has higher leverage than the group. If the transaction is completed, Stora Enso’s leverage will increase initially by up to 0.6x but will remain within the new targets.

The transaction introduces additional debt, but the control of this entity enhances Stora Enso’s vertical integration, given its stable long-term forestry assets, which improves the group’s business profile. Fitch considers this transaction is likely to occur and has included it in its rating case.

**Reduced Capex Intensity:** Yearly capex levels have been reduced with the completion of the large Beihai (packaging in China) project, and we estimate capex of around EUR650 million per year. This includes a number of upgrades, extensions and new lines across Stora Enso’s production plants. Nonetheless, the company has publically announced that it is considering the conversion of a fine paper mill in Oulu into packaging board production – a similar conversion to the recently completed project in Varkaus.

This would be a large project, estimated at EUR700 million, but the plan is to spread it over several years, and that it will fall within its policy of keeping capex in line with depreciation.

## Rating Derivation Relative to Peers

Rating Derivation vs Peers	
Peer Comparison	Stora Enso’s strategic transformation away from paper towards packaging, biomaterials and wood products, has enabled the group to develop a leading business profile similar to packaging competitors such as Smurfit Kappa. Stora Enso is still burdened by its lower-margin paper business, but its margins are now similar to those of Smurfit Kappa (EBITDAR margins of around 15%). Stora Enso’s margins are close to 19% (2017 figures), if we exclude the paper business that is rapidly decreasing. We also view Stora Enso to be also diversified both in terms of products and geographically with growing exposure to the fast-growing Chinese market. Stora Enso is the leader in the Nordic market and is among the global leaders in liquid packaging, although Smurfit Kappa is the clear leader in corrugated packaging and container board.
Parent/Subsidiary Linkage	No Parent/Subsidiary Linkage is applicable.
Country Ceiling	No Country Ceiling constraint was in effect for these ratings.
Operating Environment	No Operating Environment influence was in effect for these ratings.
Other Factors	None.
Source: Fitch	

## Navigator Peer Comparison

Issuer	Business profile							Financial profile		
	IDR/Outlook	Operating Environment	Management and Corporate Governance	Sector Competitive Intensity	Sector Trend	Company’s Market Position	Diversification	Profitability	Financial Structure	Financial Flexibility
Stora Enso Oyj	BBB-/Sta	aa	bbb+	bb+	bbb-	bbb	bbb	bb+	bbb	bbb+
Smurfit Kappa Group plc	BB+/Sta	a	a-	bb+	bbb-	bbb	bb+	bb+	bbb	bbb+
Klabin S.A.	BB+/Sta	bb-	bbb+	bbb-	bbb-	bbb	bb+	bbb	bb	bbb-
Celulosa Arauco y Constitucion S.A.	BBB/Sta	aa	a-	bbb	bbb	bbb+	bbb-	a-	bbb-	bbb+
Suzano Papel e Celulose S.A.	BBB-/Sta	bbb-	bbb	bbb	bbb	bbb	bb+	a-	bb+	bbb

Source: Fitch

Importance: Higher (Red), Moderate (Blue), Lower (Light Blue)

## Rating Sensitivities

Developments That May, Individually or Collectively, Lead to Positive Rating Action

- Increased geographical diversification leading to improved business risk
- EBIT margins sustainably above 12%
- FFO adjusted net leverage below 2.0x on a sustained basis
- Free cash flow (FCF) margin above 2.5%

Developments That May, Individually or Collectively, Lead to Negative Rating Action

- Significant acquisitions or large-scale capex projects
- EBIT margins sustainably below 10%
- FFO adjusted net leverage above 2.5x on a sustained basis

## Liquidity and Debt Structure

**Comfortable Liquidity:** Stora Enso had a total of EUR1,229 million in available liquidity at end-1H18, EUR629 million of which were in cash (before Fitch's adjustment for working capital swing) and EUR600 million were unutilised committed credit lines (ie not including the pension loan facility). This is sufficient to cover its EUR1,047 million of debt maturing within 12 months. In addition, Fitch forecasts positive FCF over the next 12 months which provides additional coverage for debt service. During 1H18, Stora Enso issued a new EUR300 million bond due in 2028 to refinance maturing bonds.

## Debt Maturities and Liquidity at FYE17

Liquidity Summary	Original	Original
(EURm)	31 December 2016	31 December 2017
Total Cash & Cash Equivalents	953	607
Short-Term Investments	0	0
Less: Not Readily Available Cash and Cash Equivalents	36	159
<b>Fitch-defined Readily Available Cash and Cash Equivalents</b>	<b>917</b>	<b>448</b>
Availability under Committed Lines of Credit	700	600
<b>Total Liquidity</b>	<b>1,617</b>	<b>1,048</b>
<b>LTM EBITDA</b>	<b>1,198</b>	<b>1,384</b>
<b>LTM FCF</b>	<b>219</b>	<b>264</b>
Source: Fitch; Company filings		

Scheduled Debt Maturities	Original
(EURm)	31 December 2017
Current Year	902
Plus 1 Year	417
Plus 2 Years	187
Plus 3 Years	125
Plus 4 Years	130
Thereafter	1,212
<b>Total Debt Maturities</b>	<b>2,973</b>
Source: Fitch; Company filings	

## Key Rating Issues

### Successful Transformation with New Renewable Products

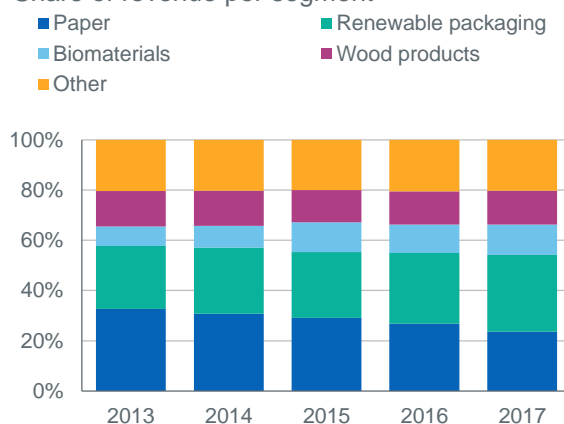
The Issue	Stora Enso's strategy has been to transform the group away from paper and to grow other products. The transformation has led to the disposal of a number of paper-related assets over the years, and one paper mill has been converted into other use.		
Our View	The transformation has been successful with packaging, new biomaterial products and wood products filling the gap, resulting in improved profitability, higher margins and stronger cash flows. We expect Stora Enso to continue to adjust its paper capacity to achieve full utilisation and thereby remain cash generative.		
Timeline	Ongoing	Rating Impact:	Positive
Source: Fitch			

**Transformation Is Paying Off:** Stora Enso set out early to decrease its dependence on paper by growing new product and solution offerings, in order to meet the structural decline in paper primarily for newsprint and magazines. Paper has decreased from 40% of turnover in 2013 to less than 30% at present. Packaging is the largest contributor to profitability with 45% of EBITDA in 2017. This segment encompasses consumer board (various packaging for the liquid-, food-, pharmaceutical- and luxury- goods sectors) and packaging solutions (fibre-based board materials and corrugated packaging products).

Stora Enso's growth segments benefit from the trends of environmental awareness, increased urbanisation, a growing middle class and digitalisation. The growing e-commerce leads to strong demand for packaging solutions, and products are upgraded with various solutions that track where in the logistics chain the packages are.

#### Gradual Transformation

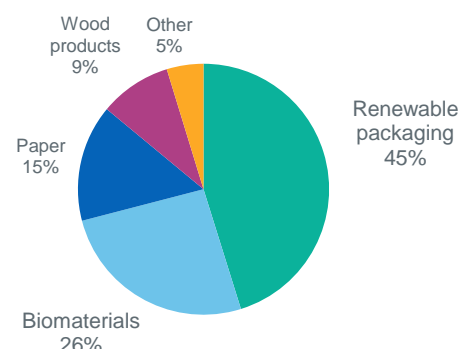
Share of revenue per segment



Source: Stora Enso

#### Packaging Largest Contributor

EBITDA per segment (in 2017)



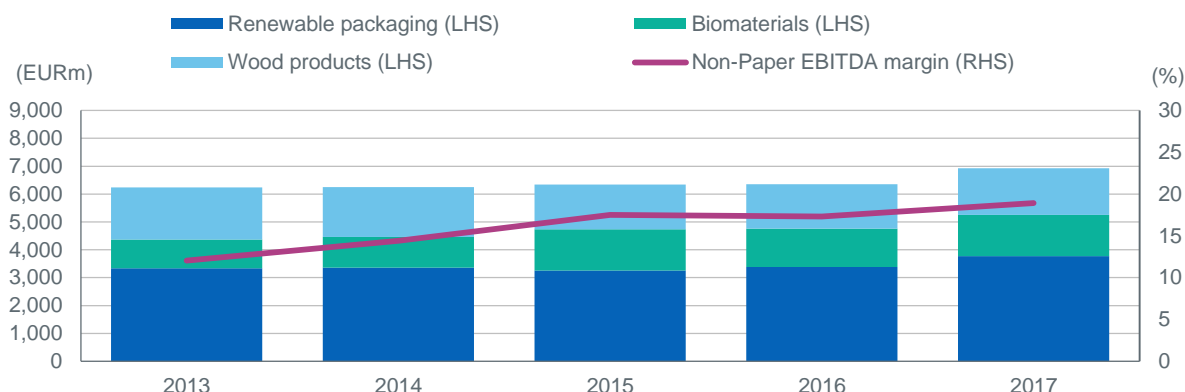
Source: Stora Enso

**Substantial R&D Investments:** Stora Enso invests substantially in R&D, and the revenue from newly developed products reached 7% of sales in 2017. New products in the biomaterials area include bio-chemicals such as lignin and biomass polymers that can replace oil-based plastics, the sweetener xylose and dissolving pulp, which is used in textiles and packaging. Micro-fibrillated cellulose replaces fossil materials in liquid packaging and offer lighter-weight packaging and stronger liners. In the wood area, new building systems enable the building of high-rise buildings.

**Improved Profitability In Non-Paper Segments:** The non-paper segments have increased their EBITDA margins following the upscaling of production at new plants, improved product mix and focus on improving efficiency. Seen over time, this is a considerable improvement and a larger contribution to the segments' increasing share of EBITDA rather than revenue growth.

### Growing Non-Paper Business

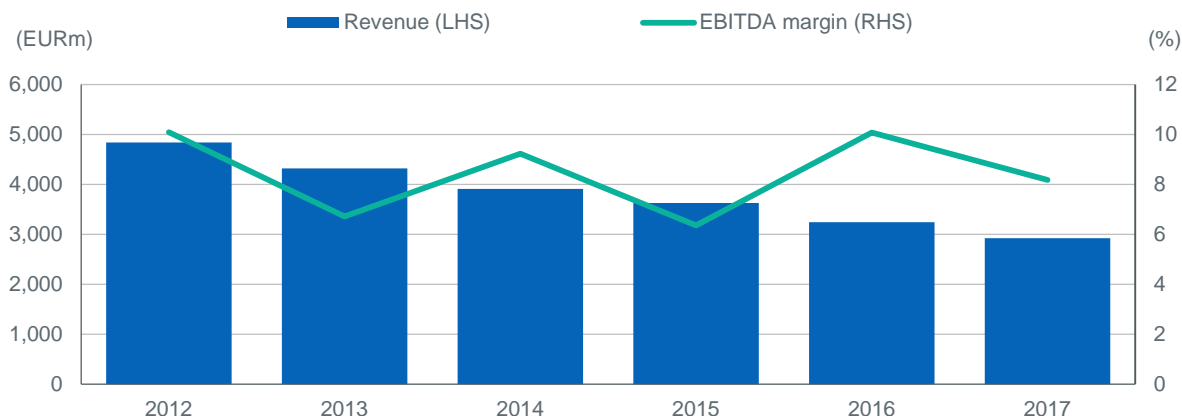
Improving profitability



Source: Stora Enso

**Paper Is Cash Generative:** The paper segment is a useful source of cash flow with proceeds used to invest in the growth segments and new products. Stora Enso has managed the decline in the paper market successfully and maintained post-capex cash generation via high capacity utilisation. Stora Enso’s paper sales have decreased faster than the overall market (by 8%-9% CAGR in the past seven years) as the company has closed, sold or converted paper mills to maintain its utilisation rate. The management’s internal target for cash flow after investing activity to sales is at least 7% in this segment.

### Paper Business in Structural Decline

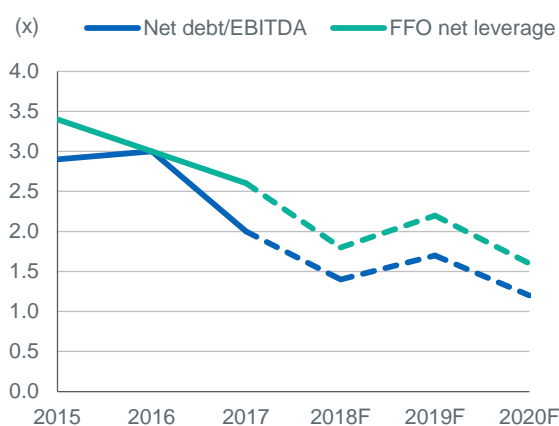


Source: Stora Enso

## Management Committed to Lower Leverage

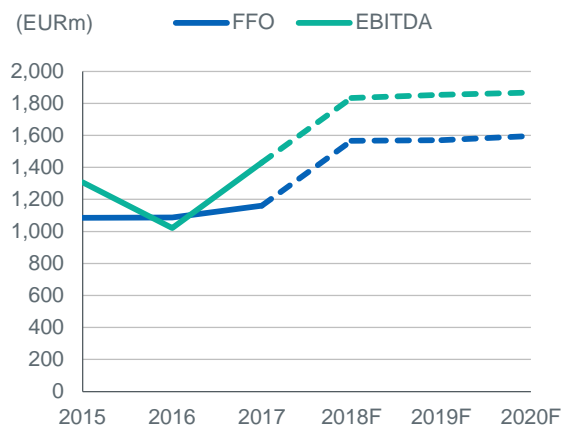
The Issue	Management announced tightened leverage targets in its 1H18 report presentation. While the profitability target remains unchanged (operational return on capital employed above 13%), both gearing and net leverage targets were lowered. The target for debt-to-equity was reduced to below 0.6x from the previous 0.8x and net debt/EBITDA to below 2.0x from previously below 3.0x.		
Our View	We view the new targets as a commitment by Stora Enso's management to maintain the lower leverage level achieved, which is credit positive. Fitch forecasts Stora Enso to remain at a level commensurate with its investment-grade rating with FFO net leverage maintained below 2.5x.		
Timeline	Mid-term	Rating Impact:	Positive

### Recent Deleveraging Maintained



Source: Fitch

### Driven by EBITDA and FFO Improvement



Source: Fitch

## Key Assumptions

### Fitch's Key Assumptions Within Our Rating Case for the Issuer

- Modest revenue growth as packaging, biomaterial and wood products are offset by decline in paper in 2019-2021.
- For 2018, we expect the more benign market environment for paper to result in mid-single digit growth in total revenue.
- Improved EBITDA margin in 2018 driven by improved profitability in most segments. Flat margins during 2018-2021 driven by improved consumer board margins as Beihai moves toward higher-value-added products offset by lower margins in biomaterials, wood products and paper as margins normalise.
- Capex around EUR650 million per year following completion of earlier major projects.
- Consolidation of Bergvik Skog (Vaest) at the beginning of 2019.
- Dividends in line with dividend policy (50% of net income).

## Financial Data

(EURm)	Historical			Forecast		
	Dec 2015	Dec 2016	Dec 2017	Dec 2018F	Dec 2019F	Dec 2020F
<b>Summary Income Statement</b>						
Gross Revenue	10,040	9,802	10,045	10,629	10,685	10,730
Revenue Growth (%)	-1.7	-2.4	2.5	5.8	0.5	0.4
Operating EBITDA (Before Income from Associates)	1,320	1,142	1,365	1,834	1,853	1,852
Operating EBITDA Margin (%)	13.1	11.7	13.6	17.3	17.3	17.3
Operating EBITDAR	1,403	1,228	1,446	1,919	1,940	1,939
Operating EBITDAR Margin (%)	14.0	12.5	14.4	18.1	18.2	18.1
Operating EBIT	798	638	872	1,234	1,248	1,243
Operating EBIT Margin (%)	7.9	6.5	8.7	11.6	11.7	11.6
Gross Interest Expense	-198	-171	-143	-124	-123	-122
Pretax Income (Including Associate Income/Loss)	814	541	742	1,110	1,126	1,120
<b>Summary Balance Sheet</b>						
Readily Available Cash and Equivalents	621	917	448	446	555	581
Total Debt with Equity Credit	4,471	4,127	3,394	2,992	3,755	3,318
Total Adjusted Debt with Equity Credit	5,135	4,815	4,042	3,678	4,444	4,010
Net Debt	3,850	3,210	2,946	2,546	3,200	2,738
<b>Summary Cash Flow Statement</b>						
Operating EBITDA	1,320	1,142	1,365	1,834	1,853	1,852
Cash Interest Paid	-191	-144	-143	-124	-123	-122
Cash Tax	-78	-92	-97	-167	-169	-168
Dividends Received Less Dividends Paid to Minorities (Inflow/(Out)flow)	42	56	19	24	9	9
Other Items Before FFO	-26	113	14	0	0	0
Funds Flow from Operations	1,085	1,087	1,161	1,567	1,571	1,571
FFO Margin (%)	10.8	11.1	11.6	14.7	14.7	14.6
Change in Working Capital	-21	190	53	-251	-6	-5
Cash Flow from Operations (Fitch Defined)	1,064	1,277	1,214	1,316	1,565	1,566
Total Non-Operating/Non-Recurring Cash Flow	0	0	0			
Capital Expenditure	-956	-798	-658			
Capital Intensity (Capex/Revenue) (%)	9.5	8.1	6.6			
Common Dividends	-237	-260	-292			
FCF	-129	219	264			
Net Acquisitions and Divestitures	2	214	24			
Other Investing and Financing Cash Flow Items	-16	89	-85	0	-881	0
Net Debt Proceeds	-538	-459	-533	-402	763	-437
Net Equity Proceeds	-6	-2	-3	-3	-3	-4
Total Change in Cash	-687	61	-333	-2	109	25
<b>Calculations for Forecast Publication</b>						
Capex, Dividends, Acquisitions and Other Items Before FCF	-1,191	-844	-926	-913	-1,334	-1,100
FCF After Acquisitions and Divestitures	-127	433	288	403	231	466
FCF Margin (After Net Acquisitions) (%)	-1.3	4.4	2.9	3.8	2.2	4.3
<b>Coverage Ratios</b>						
FFO Interest Coverage (x)	6.6	8.5	9.1	13.7	13.8	13.8

FFO Fixed Charge Coverage (x)	4.9	5.7	6.2	8.5	8.5	8.5
Operating EBITDAR/Interest Paid + Rents (x)	5.3	5.6	6.5	9.3	9.3	9.3
Operating EBITDA/Interest Paid (x)	7.1	8.3	9.7	15.0	15.2	15.2
<b>Leverage Ratios</b>						
Total Adjusted Debt/Operating EBITDAR (x)	3.6	3.8	2.8	1.9	2.3	2.1
Total Adjusted Net Debt/Operating EBITDAR (x)	3.1	3.0	2.5	1.7	2.0	1.8
Total Debt with Equity Credit/Operating EBITDA (x)	3.3	3.4	2.5	1.6	2.0	1.8
FFO Adjusted Leverage (x)	3.8	3.7	2.9	2.1	2.5	2.3
FFO Adjusted Net Leverage (x)	3.4	3.0	2.6	1.8	2.2	1.9
Source: Fitch						

#### How to Interpret the Forecast Presented

The forecast presented is based on the agency's internally produced, conservative rating case forecast. It does not represent the forecast of the rated issuer. The forecast set out above is only one component used by Fitch to assign a rating or determine a rating outlook, and the information in the forecast reflects material but not exhaustive elements of Fitch's rating assumptions for the issuer's financial performance. As such, it cannot be used to establish a rating, and it should not be relied on for that purpose. Fitch's forecasts are constructed using a proprietary internal forecasting tool, which employs Fitch's own assumptions on operating and financial performance that may not reflect the assumptions that you would make. Fitch's own definitions of financial terms such as EBITDA, debt or free cash flow may differ from your own such definitions. Fitch may be granted access, from time to time, to confidential information on certain elements of the issuer's forward planning. Certain elements of such information may be omitted from this forecast, even where they are included in Fitch's own internal deliberations, where Fitch, at its sole discretion, considers the data may be potentially sensitive in a commercial, legal or regulatory context. The forecast (as with the entirety of this report) is produced strictly subject to the disclaimers set out at the end of this report. Fitch may update the forecast in future reports but assumes no responsibility to do so.



Rating Navigator

# Stora Enso Oyj

## Corporates Ratings Navigator Generic

Factor Levels	Sector Risk Profile	Operating Environment	Management and Corporate Governance	Business Profile				Financial Profile			Issuer Default Rating
				Sector Competitive Intensity	Sector Trend	Company's Market Position	Diversification	Profitability	Financial Structure	Financial Flexibility	
aaa											AAA
aa+											AA+
aa											AA
aa-											AA-
a+											A+
a											A
a-											A-
bbb+											BBB+
bbb											BBB
bbb-											BBB- Stable
bb+											BB+
bb											BB
bb-											BB-
b+											B+
b											B
b-											B-
ccc+											CCC+
ccc											CCC
ccc-											CCC-
cc											CC
c											C
d or rd											D or RD

Source: Fitch Ratings

Operating Environment

aa+	Economic Environment	a	Strong combination of countries where economic value is created and where assets are located.
aa	Financial Access	aa	Very strong combination of issuer specific funding characteristics and of the strength of the relevant local financial market.
	Systemic Governance	aa	Systemic governance (eg rule of law, corruption; government effectiveness) of the issuer's country of incorporation consistent with 'aa'
b-			
ccc+			

Sector Competitive Intensity

bbb	Industry Structure	bb	Highly competitive industry with multiple players of comparable size.
bbb-	Barriers to Entry/Exit	bbb	Moderate barriers to entry. Incumbents are generally strongly established but successful new entrants have emerged over time.
bb+	Relative Power in Value Chain	bb	Supplier and/or customer more concentrated with significant bargaining power.
bb			
bb-			

Company's Market Position

a-	Market Share	bbb	Top-five player in most markets or leader in a niche with some threats of substitution within the industry.
bbb+	Competitive Advantage	bbb	Some competitive advantages with reasonably good sustainability.
bbb	Operating Efficiency	bbb	Return on invested capital in line with industry average.
bbb-			
bb+			

Profitability

bbb	FFO Margin	a	14%
bbb-	EBIT Margin	bb	10%
bb+	FCF Margin		3.50%
bb	Volatility of Profitability	bbb	Volatility of profits in line with industry average.
bb-	EBITDAR Margin	bb	18%

Financial Flexibility

a	Financial Discipline	bbb	Financial policies less conservative than peers but generally applied consistently.
a-	Liquidity	a	Very comfortable liquidity. Well-spread debt maturity schedule. Diversified sources of funding.
bbb+	FFO Fixed Charge Cover	a	6x
bbb	FX Exposure	bbb	Some exposure of profitability to FX movements and/or debt/cash-flow match. Effective hedging in place.
bbb-	EBITDAR/(Gross Interest + Rents)	a	7.0x

Source: Fitch Ratings

Management and Corporate Governance

a	Management Strategy	bbb	Strategy may include opportunistic elements but soundly implemented.
a-	Governance Structure	bbb	Good CG track record but effectiveness/independence of board less obvious. No evidence of abuse of power even with ownership concentration.
bbb+	Group Structure	bbb	Some group complexity leading to somewhat less transparent accounting statements. No significant related-party transactions.
bbb	Financial Transparency	a	High quality and timely financial reporting.
bbb-	Financial Sponsor Attitude (LBO only)		

Sector Trend

bbb+	Long-Term Growth Potential	bbb	Mature industry. Traditional markets may be under some pressure but opportunities arise in new markets.
bbb	Volatility of Demand	bbb	Demand volatility in line with economic cycles.
bbb-	Threat of Substitutes	bb	Facing substitutes of comparable quality with modest switching costs.
bb+			
bb			

Diversification

a-	Geographic Diversification	bbb	Some geographical diversification but imbalance between growth and mature markets.
bbb+	Product/End-Market	bbb	Exposure to at least three business lines or markets but with some performance correlation.
bbb			
bbb-			
bb+			

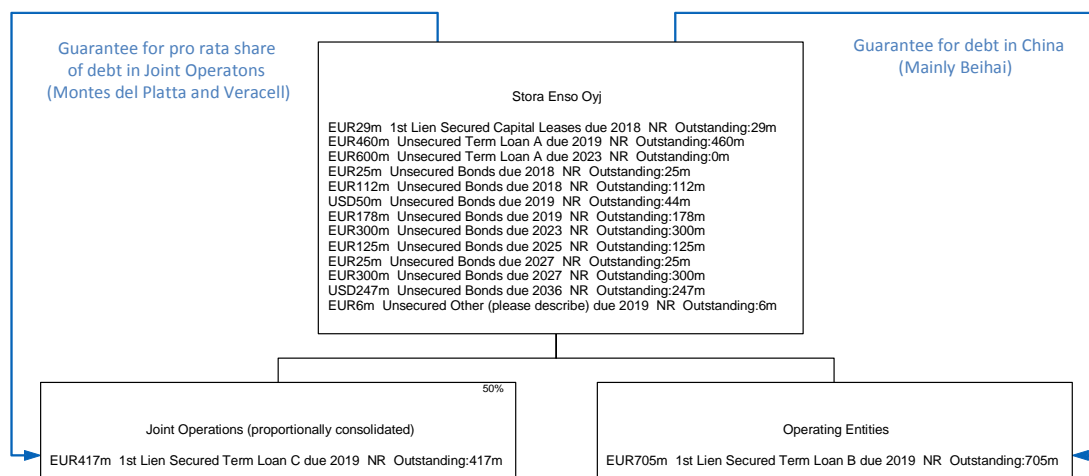
Financial Structure

a-	Lease Adjusted FFO Gross Leverage	a	2.5x
bbb+	Lease Adjusted FFO Net Leverage	a	2.0x
bbb	Net Debt/(CFO - Capex)	bb	3.5x
bbb-	Lease Adjusted Gross Debt/EBITDAR	bbb	3.0x
bb+	Funding Structure (LBO only)		

**How to Read This Page:** The left column shows the three-notch band assessment for the overall Factor, illustrated by a bar. The right column breaks down the Factor into Sub-Factors, with a description appropriate for each Sub-Factor and its corresponding category.

Navigator Version: RN 1.44.3.0

Simplified Group Structure Diagram



Source: Fitch, Company. As at December 2017

## Peer Financial Summary

Company	IDR	Financial Statement Date	Gross Revenue (EURm)	Operating EBITDAR Margin (%)	FFO Margin (%)	FFO Fixed Charge Coverage (x)	FFO Adjusted Net Leverage (x)
Stora Enso Oyj	BBB-	2017	10,045	14.4	11.6	6.2	2.6
		2016	9,802	12.5	11.1	5.7	3.0
		2015	10,040	14.0	10.8	4.9	3.4
Smurfit Kappa Group plc	BB+	2017	8,562	14.7	10.0	5.2	3.1
		2016	8,159	15.5	10.1	5.3	3.3
		2015	8,109	14.7	9.9	5.8	3.6
Klabin S.A.	BB+	2017	2,319	32.1	26.1	2.6	4.0
		2016	1,837	31.6	6.3	0.9	10.0
		2015	1,538	33.8	15.2	1.3	8.9
Celulosa Arauco y Constitucion S.A.	BBB	2017	4,634	24.9	19.6	4.9	2.9
		2016	4,305	21.6	15.4	4.7	3.5
		2015	4,639	24.8	18.0	4.9	3.7
Fibria Celulose S.A.	BBB-	2017	3,251	41.4	30.1	4.1	3.7
		2016	2,491	38.8	28.7	5.3	4.2
		2015	2,727	53.5	45.2	11.9	2.5
Suzano Papel e Celulose S.A.	BBB-	2017	2,913	42.4	33.0	4.2	2.5
		2016	2,561	37.5	28.9	3.3	3.1
		2015	2,766	43.7	35.3	4.0	3.1

Source: Fitch

## Reconciliation of Key Financial Metrics

(EUR Millions, As reported)	31 Dec 2017
<b>Income Statement Summary</b>	
Operating EBITDA	1 365
+ Recurring Dividends Paid to Non-controlling Interest	-1
+ Recurring Dividends Received from Associates	20
+ Additional Analyst Adjustment for Recurring I/S Minorities and Associates	0
<b>= Operating EBITDA After Associates and Minorities (k)</b>	<b>1 384</b>
<b>+ Operating Lease Expense Treated as Capitalised (h)</b>	<b>81</b>
<b>= Operating EBITDAR after Associates and Minorities (j)</b>	<b>1 465</b>
<b>Debt &amp; Cash Summary</b>	
<b>Total Debt with Equity Credit (l)</b>	<b>3 394</b>
+ Lease-Equivalent Debt	648
+ Other Off-Balance-Sheet Debt	0
<b>= Total Adjusted Debt with Equity Credit (a)</b>	<b>4 042</b>
Readily Available Cash [Fitch-Defined]	448
+ Readily Available Marketable Securities [Fitch-Defined]	0
<b>= Readily Available Cash &amp; Equivalents (o)</b>	<b>448</b>
<b>Total Adjusted Net Debt (b)</b>	<b>3 594</b>
<b>Cash-Flow Summary</b>	
<b>Preferred Dividends (Paid) (f)</b>	<b>0</b>
Interest Received	3
<b>+ Interest (Paid) (d)</b>	<b>-143</b>
<b>= Net Finance Charge (e)</b>	<b>-140</b>
<b>Funds From Operations [FFO] (c)</b>	<b>1 161</b>
+ Change in Working Capital [Fitch-Defined]	53
<b>= Cash Flow from Operations [CFO] (n)</b>	<b>1 214</b>
<b>Capital Expenditures (m)</b>	<b>-658</b>
<b>Multiple applied to Capitalised Leases</b>	<b>8,0</b>
<b>Gross Leverage</b>	
<b>Total Adjusted Debt / Op. EBITDAR* [x] (a/j)</b>	<b>2,8</b>
<b>FFO Adjusted Gross Leverage [x] (a/(c-e+h-f))</b>	<b>2,9</b>
<i>Total Adjusted Debt/(FFO - Net Finance Charge + Capitalised Leases - Pref. Div. Paid)</i>	
<b>Total Debt With Equity Credit / Op. EBITDA* [x] (l/k)</b>	<b>2,5</b>
<b>Net Leverage</b>	
<b>Total Adjusted Net Debt / Op. EBITDAR* [x] (b/j)</b>	<b>2,5</b>
<b>FFO Adjusted Net Leverage [x] (b/(c-e+h-f))</b>	<b>2,6</b>
<i>Total Adjusted Net Debt/(FFO - Net Finance Charge + Capitalised Leases - Pref. Div. Paid)</i>	
<b>Total Net Debt / (CFO - Capex) [x] ((l-o)/(n+m))</b>	<b>5,3</b>
<b>Coverage</b>	
<b>Op. EBITDAR / (Interest Paid + Lease Expense)* [x] (j/-d+h)</b>	<b>6,5</b>
<b>Op. EBITDA / Interest Paid* [x] (k/(-d))</b>	<b>9,7</b>
<b>FFO Fixed Charge Cover [x] ((c+e+h-f)/(-d+h-f))</b>	<b>6,2</b>
<i>(FFO + Net Finance Charge + Capit. Leases - Pref. Div. Paid) / (Gross Int. Paid + Capit. Leases - Pref. Div. Paid)</i>	
<b>FFO Gross Interest Coverage [x] ((c+e-f)/(-d-f))</b>	<b>9,1</b>
<i>(FFO + Net Finance Charge - Pref. Div. Paid) / (Gross Int. Paid - Pref. Div. Paid)</i>	
* EBITDAR after Dividends to Associates and Minorities	
Source: Fitch, based on information from company reports.	

## Fitch Adjustment Reconciliation

	Reported Values 31 Dec 2017	Sum of Fitch Adjustments	Preferred Dividends, Associates and Minorities Cash Adjustments	Fair Value and Other Debt Adjustments	Cash Adjustment	Lease Adjustment	- CORP - Factoring	Adjusted Values
<b>Income Statement Summary</b>								
Revenue	10 045	0						10 045
Operating EBITDAR	1 365	81				81		1 446
Operating EBITDAR after Associates and Minorities	1 365	100	19			81		1 465
Operating Lease Expense	0	81				81		81
Operating EBITDA	1 365	0						1 365
Operating EBITDA after Associates and Minorities	1 365	19	19					1 384
Operating EBIT	872	0						872
<b>Debt &amp; Cash Summary</b>								
Total Debt With Equity Credit	2 945	449		28			421	3 394
Total Adjusted Debt With Equity Credit	2 945	1 097		28		648	421	4 042
Lease-Equivalent Debt	0	648				648		648
Other Off-Balance Sheet Debt	0	0						0
Readily Available Cash & Equivalents	607	-159			-159			448
Not Readily Available Cash & Equivalents	0	159			159			159
<b>Cash-Flow Summary</b>								
Preferred Dividends (Paid)	0	0						0
Interest Received	3	0						3
Interest (Paid)	-143	0						-143
Funds From Operations [FFO]	1 145	16	19				-3	1 161
Change in Working Capital [Fitch-Defined]	37	16					16	53
Cash Flow from Operations [CFO]	1 182	32	19				13	1 214
Non-Operating/Non-Recurring Cash Flow	0	0						0
Capital (Expenditures)	-658	0						-658
Common Dividends (Paid)	-292	0						-292
Free Cash Flow [FCF]	232	32	19				13	264
<b>Gross Leverage</b>								
Total Adjusted Debt / Op. EBITDAR* [x]	2,2							2,8
FFO Adjusted Leverage [x]	2,3							2,9
Total Debt With Equity Credit / Op. EBITDA* [x]	2,2							2,5
<b>Net Leverage</b>								
Total Adjusted Net Debt / Op. EBITDAR* [x]	1,7							2,5
FFO Adjusted Net Leverage [x]	1,8							2,6
Total Net Debt / (CFO - Capex) [x]	4,5							5,3
<b>Coverage</b>								
Op. EBITDAR / (Interest Paid + Lease Expense)* [x]	9,5							6,5
Op. EBITDA / Interest Paid* [x]	9,5							9,7
FFO Fixed Charge Coverage [x]	9,0							6,2
FFO Interest Coverage [x]	9,0							9,1

\*EBITDAR after Dividends to Associates and Minorities  
Source: Fitch, based on information from company reports.

## Full List of Ratings

	Rating	Outlook	Last Rating Action
<b>Stora Enso Oyj</b>			
Long-Term IDR	BBB-	Stable	New Rating 08 August 2018

## Related Research & Criteria

<a href="#">Smurfit Kappa Group plc (July 2017)</a>
<a href="#">Klabin S.A. (May 2018)</a>
<a href="#">Fibria Celulose S.A. (January 2018)</a>
<a href="#">Celulosa Arauco y Constitucion S.A. (October 2017)</a>
<a href="#">Suzano Papel e Celulose S.A. (January 2018)</a>
<a href="#">Corporate Rating Criteria (March 2018)</a>
<a href="#">Corporates Notching and Recovery Ratings Criteria (March 2018)</a>

## Analysts

<b>Elisabeth Adebäck</b> +46 85510 9442 <a href="mailto:elisabeth.adeback@fitchratings.com">elisabeth.adeback@fitchratings.com</a>
<b>Fredric Liljestränd</b> +46 85510 9441 <a href="mailto:fredric.liljestrand@fitchratings.com">fredric.liljestrand@fitchratings.com</a>

The ratings above were solicited and assigned or maintained at the request of the rated entity/issuer or a related third party. Any exceptions follow below.

ALL FITCH CREDIT RATINGS ARE SUBJECT TO CERTAIN LIMITATIONS AND DISCLAIMERS. PLEASE READ THESE LIMITATIONS AND DISCLAIMERS BY FOLLOWING THIS LINK: [HTTPS://FITCHRATINGS.COM/UNDERSTANDINGCREDITRATINGS](https://fitchratings.com/understandingcreditratings). IN ADDITION, RATING DEFINITIONS AND THE TERMS OF USE OF SUCH RATINGS ARE AVAILABLE ON THE AGENCY'S PUBLIC WEB SITE AT [WWW.FITCHRATINGS.COM](http://WWW.FITCHRATINGS.COM). PUBLISHED RATINGS, CRITERIA, AND METHODOLOGIES ARE AVAILABLE FROM THIS SITE AT ALL TIMES. FITCH'S CODE OF CONDUCT, CONFIDENTIALITY, CONFLICTS OF INTEREST, AFFILIATE FIREWALL, COMPLIANCE, AND OTHER RELEVANT POLICIES AND PROCEDURES ARE ALSO AVAILABLE FROM THE CODE OF CONDUCT SECTION OF THIS SITE. FITCH MAY HAVE PROVIDED ANOTHER PERMISSIBLE SERVICE TO THE RATED ENTITY OR ITS RELATED THIRD PARTIES. DETAILS OF THIS SERVICE FOR RATINGS FOR WHICH THE LEAD ANALYST IS BASED IN AN EU-REGISTERED ENTITY CAN BE FOUND ON THE ENTITY SUMMARY PAGE FOR THIS ISSUER ON THE FITCH WEBSITE.

Copyright © 2018 by Fitch, Inc., Fitch Ratings Ltd. and its subsidiaries. 33 Whitehall Street, New York, NY 10004. Telephone: 1-800-753-4824, (212) 908-0500. Fax: (212) 480-4435. Reproduction or retransmission in whole or in part is prohibited except by permission. All rights reserved. In issuing and maintaining its ratings and in making other reports (including forecast information), Fitch relies on factual information it receives from issuers and underwriters and from other sources Fitch believes to be credible. Fitch conducts a reasonable investigation of the factual information relied upon by it in accordance with its ratings methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or in a given jurisdiction. The manner of Fitch's factual investigation and the scope of the third-party verification it obtains will vary depending on the nature of the rated security and its issuer, the requirements and practices in the jurisdiction in which the rated security is offered and sold and/or the issuer is located, the availability and nature of relevant public information, access to the management of the issuer and its advisers, the availability of pre-existing third-party verifications such as audit reports, agreed-upon procedures letters, appraisals, actuarial reports, engineering reports, legal opinions and other reports provided by third parties, the availability of independent and competent third-party verification sources with respect to the particular security or in the particular jurisdiction of the issuer, and a variety of other factors. Users of Fitch's ratings and reports should understand that neither an enhanced factual investigation nor any third-party verification can ensure that all of the information Fitch relies on in connection with a rating or a report will be accurate and complete. Ultimately, the issuer and its advisers are responsible for the accuracy of the information they provide to Fitch and to the market in offering documents and other reports. In issuing its ratings and its reports, Fitch must rely on the work of experts, including independent auditors with respect to financial statements and attorneys with respect to legal and tax matters. Further, ratings and forecasts of financial and other information are inherently forward-looking and embody assumptions and predictions about future events that by their nature cannot be verified as facts. As a result, despite any verification of current facts, ratings and forecasts can be affected by future events or conditions that were not anticipated at the time a rating or forecast was issued or affirmed.

The information in this report is provided "as is" without any representation or warranty of any kind. A Fitch rating is an opinion as to the creditworthiness of a security. This opinion is based on established criteria and methodologies that Fitch is continuously evaluating and updating. Therefore, ratings are the collective work product of Fitch and no individual, or group of individuals, is solely responsible for a rating. The rating does not address the risk of loss due to risks other than credit risk, unless such risk is specifically mentioned. Fitch is not engaged in the offer or sale of any security. All Fitch reports have shared authorship. Individuals identified in a Fitch report were involved in, but are not solely responsible for, the opinions stated therein. The individuals are named for contact purposes only. A report providing a Fitch rating is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of the securities. Ratings may be changed or withdrawn at anytime for any reason in the sole discretion of Fitch. Fitch does not provide investment advice of any sort. Ratings are not a recommendation to buy, sell, or hold any security. Ratings do not comment on the adequacy of market price, the suitability of any security for a particular investor, or the tax-exempt nature or taxability of payments made in respect to any security. Fitch receives fees from issuers, insurers, guarantors, other obligors, and underwriters for rating securities. Such fees generally vary from US\$1,000 to US\$750,000 (or the applicable currency equivalent) per issue. In certain cases, Fitch will rate all or a number of issues issued by a particular issuer, or insured or guaranteed by a particular insurer or guarantor, for a single annual fee. Such fees are expected to vary from US\$10,000 to US\$1,500,000 (or the applicable currency equivalent). The assignment, publication, or dissemination of a rating by Fitch shall not constitute a consent by Fitch to use its name as an expert in connection with any registration statement filed under the United States securities laws, the Financial Services and Markets Act 2000 of the United Kingdom, or the securities laws of any particular jurisdiction. Due to the relative efficiency of electronic publishing and distribution, Fitch research may be available to electronic subscribers up to three days earlier than to print subscribers.

For Australia, New Zealand, Taiwan and South Korea only: Fitch Australia Pty Ltd holds an Australian financial services license (AFS license no. 337123) which authorizes it to provide credit ratings to wholesale clients only. Credit ratings information published by Fitch is not intended to be used by persons who are retail clients within the meaning of the Corporations Act 2001.