Applied Value Pulp & Paper Report

Quarterly Analysis

Q4, 2020

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Applied Value Pulp & Paper Report

Applied Value’s quarterly Pulp & Paper Report is focused on financial benchmarking and market trends affecting the industry

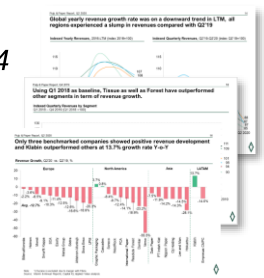
In this Pulp & Paper Report, Applied Value provides essential financial benchmarking focused on the latest quarter and 12-month period while also offering a brief update on the latest market trends.

The report provides a clear and useful analysis of the relative performance of a selection of global Pulp & Paper companies. It also offers an overview of the industry and relevant market trends that shaped the quarter.

Growth

Industry growth latest 4 quarters and LTM

Growth in the latest quarter per company segment, and region



EBITDA Margins

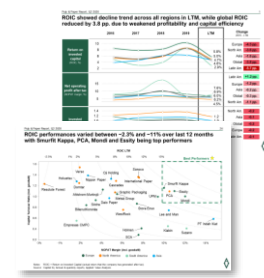
Average Industry EBITDA margin latest 4 quarters and LTM

EBITDA margin for the latest quarter per company, segment and region

ROIC

ROIC per region for the latest two 12-month periods

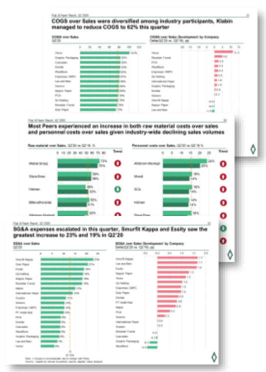
ROIC development per company and region for LTM



Operational Costs Breakdown

Operational Costs Breakdown latest quarter per company and region

Operational Costs development YoY per company and region



Market Trends

Pulp & Papers market price movements

Commodity prices and currency movements

Special Section

Major companies’ action under worldwide ban on plastic

Research on global compostable packaging and cutlery

Note: Included companies might differ from previous quarters

The report is based on the financial performance of 27 leading Pulp & Paper companies from Europe, North America, Latin America & Asia

Companies included in Financial Benchmarking in the Q4 2020 report

Market	Company	Revenue LTM (BEUR)	Country	Board	Paper	Tissue	Wood Products	Pulp	Other
Europe	Essity	12.1	Sweden			✓			✓
	UPM	8.6	Finland		✓		✓	✓	✓
	Stora Enso	8.6	Finland	✓	✓		✓	✓	✓
	Smurfit Kappa	8.5	Ireland	✓					
	Mondi	6.7	UK	✓	✓				✓
	Metsä Group	5.1	Finland	✓	✓	✓	✓	✓	✓
	Ahlström-Munksjö	2.7	Finland		✓			✓	✓
	BillerudKorsnäs	2.4	Sweden	✓	✓			✓	✓
	Södra	2.0	Sweden		✓		✓		✓
	SCA	2.0	Sweden	✓	✓	✓	✓	✓	✓
	Holmen	1.6	Sweden	✓	✓		✓		✓
North America	International Paper	16.8	USA	✓	✓		✓	✓	✓
	WestRock	14.4	USA	✓	✓				✓
	Packaging Corp. of America	5.4	USA	✓	✓				✓
	Graphic Packaging	5.4	USA	✓	✓				✓
	Sonoco	4.3	USA	✓	✓				✓
	Cascades	3.3	Canada	✓	✓	✓			✓
	Domtar	3.0	Canada		✓	✓	✓	✓	✓
	Resolute Forest	2.3	Canada		✓	✓	✓	✓	✓
	Verso	1.4	USA		✓			✓	✓
LAT AM	Suzano	4.8	Brazil		✓			✓	✓
	Klabin	1.9	Brazil	✓	✓		✓		✓
Asia	Oji Holding	10.9	Japan	✓	✓		✓		✓
	Nippon Paper	7.9	Japan	✓	✓				✓
	Nine Dragon	6.7	China	✓					
	Daio Paper	4.4	Japan	✓	✓				✓
	Hokuetsu	1.8	Japan	✓	✓			✓	✓

Source: Capital IQ, Quarterly Reports

Increasing pulp price led to positive Q-o-Q revenue development in most regions, but total revenue in 2020 was still below previous years' levels

Financial Benchmarking: Highlights in Q4 2020

Key takeaways		Top performers
Revenue Growth	› In terms of full-year revenue, all regions still underperform pre-pandemic levels; due to COVID and quarantine-driven online spending, revenue from tissue and paper board increased compared to Q4'19, and paper segment demand remained weak › Revenue increased across most regions in Q4'20 while North America showed a downward trend; However, compared to Q4'19, all regions' revenue still underperformed. Europe, Asia, Latin America and Northern America reported a fall by 5%, 2%, 14% and 11% respectively › Top regional performers of Q4'20 were Klabin, Resolute Forest, Diao Paper, and SCA with reported revenue growth of 22%, 15%, 12%, and 6% respectively	resolute Forest Products Klabin DAIO PAPER CORPORATION SCA
Profitability & Costs	› Compared to Q4'2019, EBITDA margins grew across all regions, especially for Europe with a 2.6 pp. increase while Suzano and Resolute forest being the best performers with 14% and 16% increase on EBITDA margins YoY › All product segments experienced lower EBITDA margins in Q4'20 compared to Q3'20, even the wood products segment which, until now, has seen a positive profitability development since Q4'19 › Many European companies successfully reduced raw material cost over sales or maintained at usual level, but most firms failed to manage employment expenses › Company performance on COGS over sales varies with an industry average of 76%	resolute Forest Products suzano
Return On Invested Capital (ROIC)	› Global industry average ROIC declined by 0.9 pp. in LTM; Europe and North America's ROIC dropped in Q4'20, both declined by 2.0 pp. › In this quarter, Latin America had best performance and ended this quarter with a rise in ROIC at 1.5 pp. mainly driven by its great profitability development	LATAM

Source: RISI, Interim & Annual Results.

Q4 2020 was characterized by increasing market demand and large growth in pulp prices while graphic paper prices were flattened

Market Trends: Highlights in Q4 2020

Key takeaways

Industry News	› An especially-frigid Arctic Blast swept down the US's Central Corridor causing blackouts in Texas and temporary closures of US paper mills in this area › Recycled pulp price also saw an increase due to increased freight rates as well as improved finished board demand especially in containerboard; year-end holiday season brought strong demand on box and box shipments surged at the end of year in North America › China's policy on restriction of single-use plastics was officially worked by the end of 2020, and the phased approach will allow time for China to ramp up manufacturing of biodegradable and alternate products to replace single-use plastics such as paper
Pulp Prices	› Pulp prices increased across all regions in Q4'20; prices in Northern Europe, US East, and Asia are up at approx. 12%. 3% and 21% during 2020 partially influenced by global quantitative easing policy, which pushed up commodity prices › As amid downtime crimped supply of pulp and year-end demand was often good in China, pulp price faced a great increase in this quarter while Asia showed the most rapid growth on price; future pulp prices may continue this upward trend in the next few months
Graphic Paper & Packaging	› Although down for the full year of 2020, Graphic paper prices flattened in Q4 '20 after falling significantly earlier in the year while newspaper segment price was still at the historian low level › Packaging paper prices continued increasing in Q4'20 and may maintain this upward trend as demand being stable
Commodities & Currencies	› Oil price increased by ~18% during the quarter and ended at ~47 USD/barrel in Q4'20 › Natural gas prices experienced rapid growth with 27% Europe and 14% United States › Most currencies kept appreciation against USD in this quarter: EUR, GBP, CNY and SEK were up by 9.3pp., 2.6 pp., 11.4 pp., and 6.4 pp. respectively; , only BRL were still down by -18.2 pp.

Source: RISI, Interim & Annual Results.

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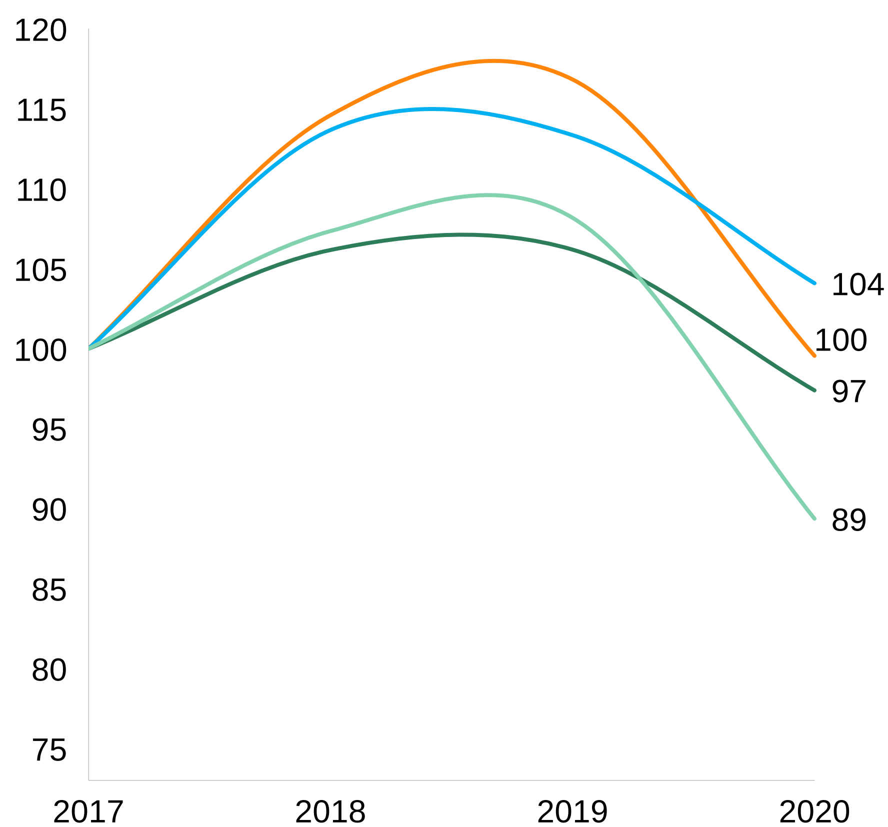
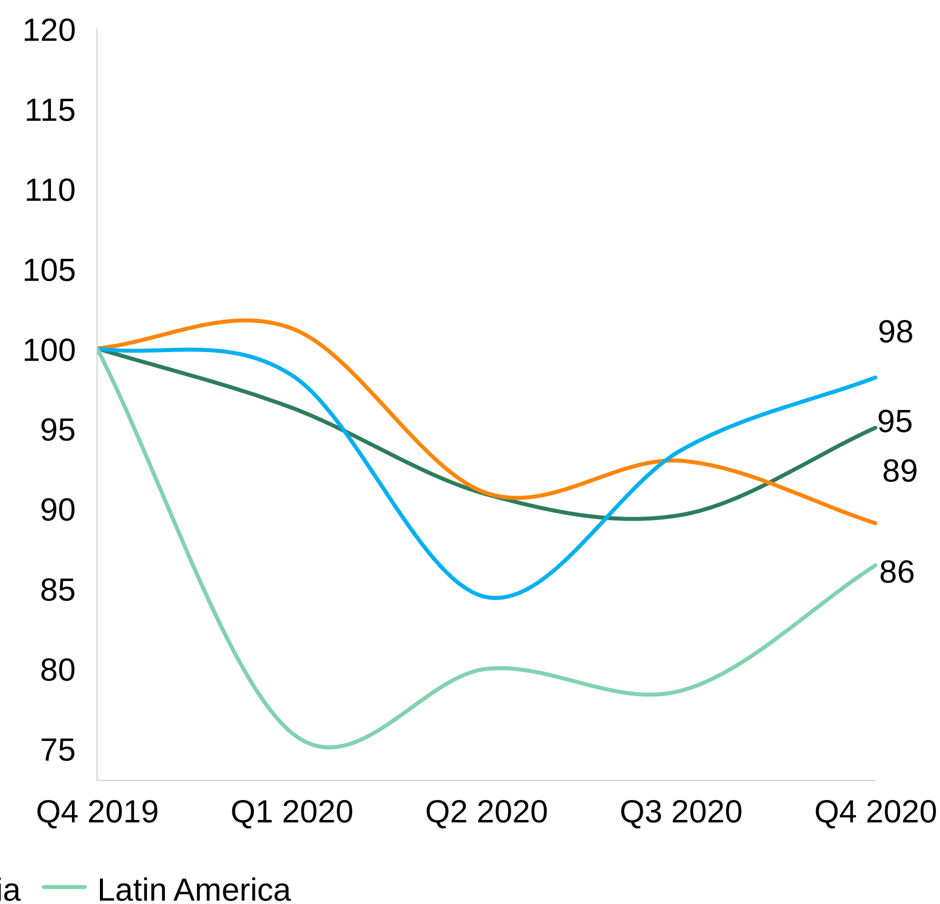
Source: RISI, Interim & Annual Results.

Global yearly revenue growth rate was brought down in 2020, but all regions displayed increased revenues in Q4'20 compared with last quarter

Indexed Yearly Revenues, 2017-LTM (index 2017=100)



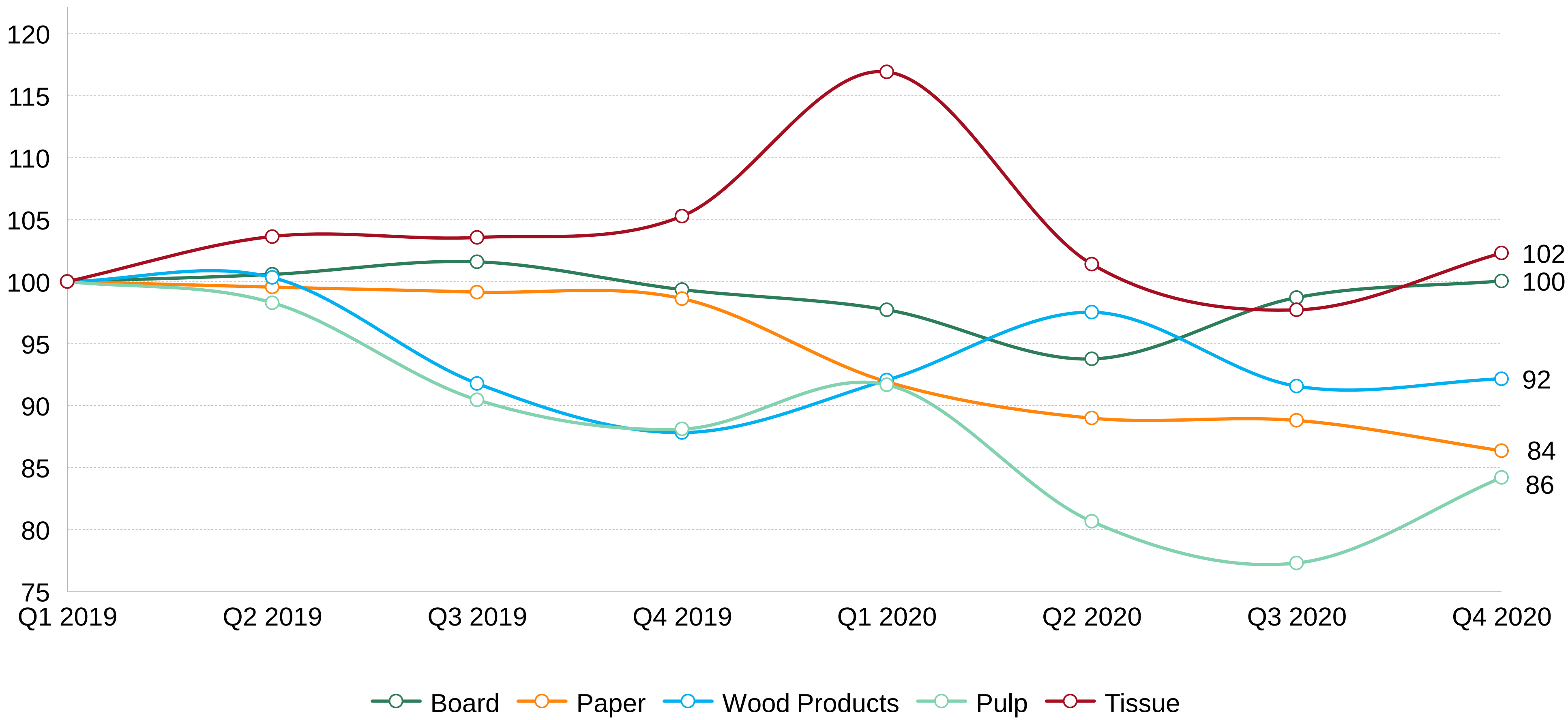
Indexed Quarterly Revenues, Q4'19-Q4'20 (index Q4'19=100)



Note: Suzano has been excluded due to the merger with Fibria
Source: Capital IQ, Annual & quarterly reports, Applied Value Analysis.

All segments' revenues saw increase in this quarter except paper products, and pulp segment experienced the most rapid growth in Q4'20

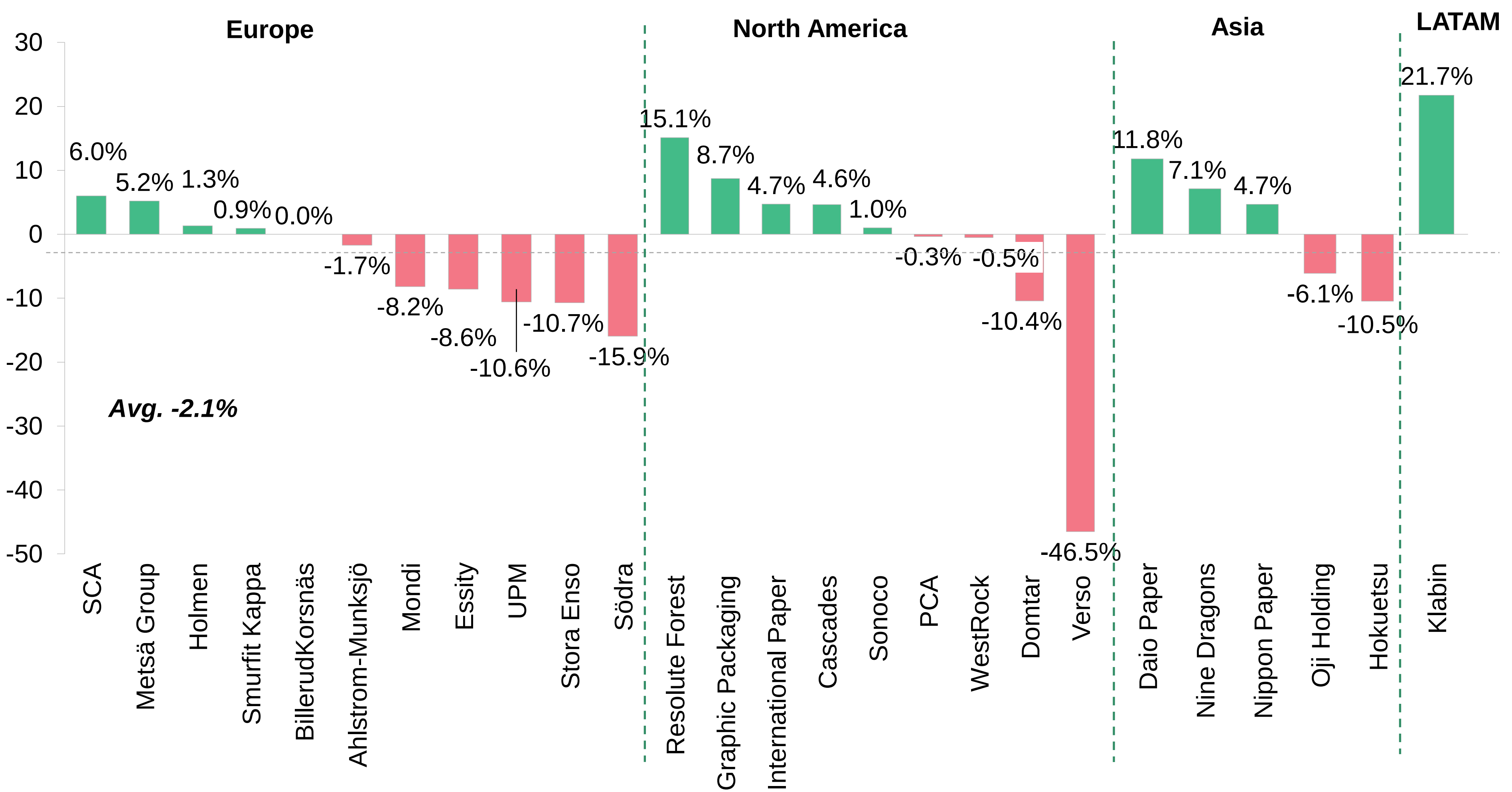
Indexed Quarterly Revenues by Segment, Q1'19 – Q4'20 (Q1'19 =100)



Source: Capital IQ, Applied Value Analysis.

The benchmarked companies presented mixed Y-o-Y revenue development with SCA, Resolute, and Daio emerging as regional winners

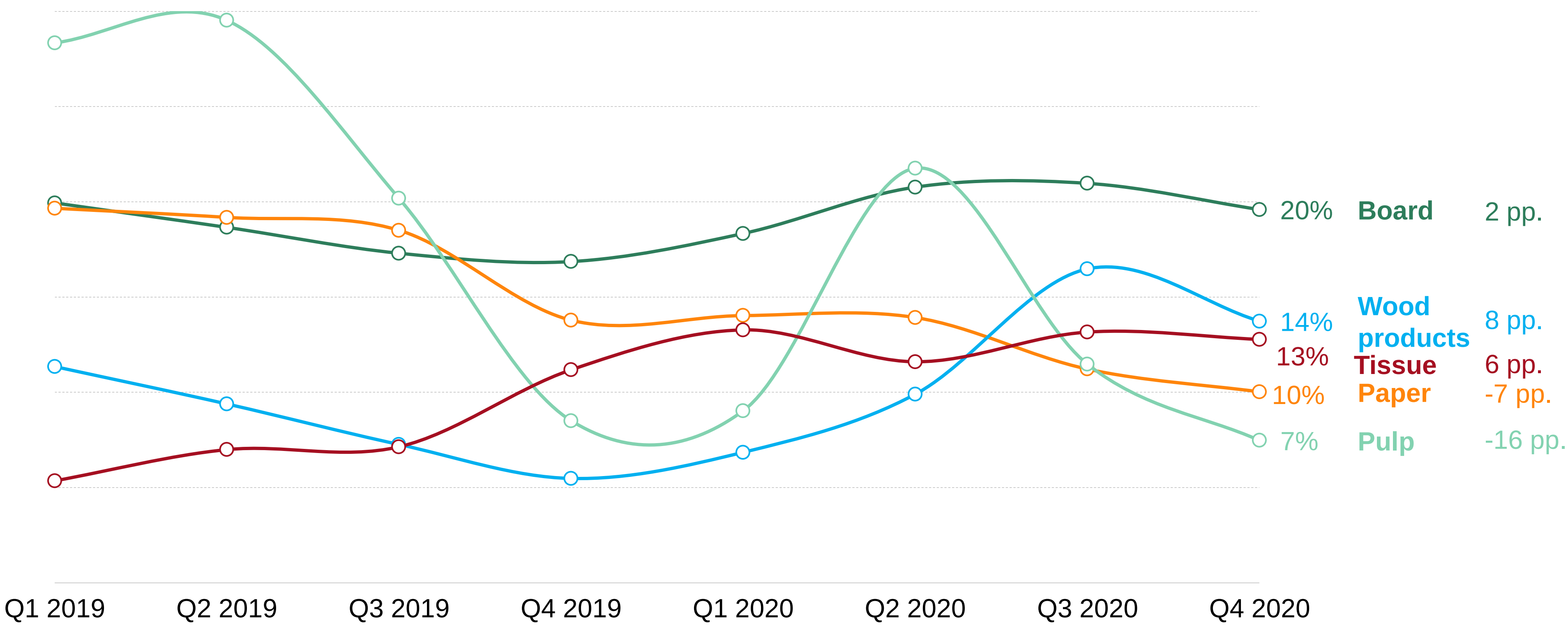
Revenue Growth, Q4'20 vs. Q4'19, %



Note: Suzano is excluded due to merger with Fibria.
Source: Interim & Annual Reports, Capital IQ, Applied Value analysis.

Profitability decreased for all product segments, even for the wood products segment, which saw falling margins for the first time in 4 quarters

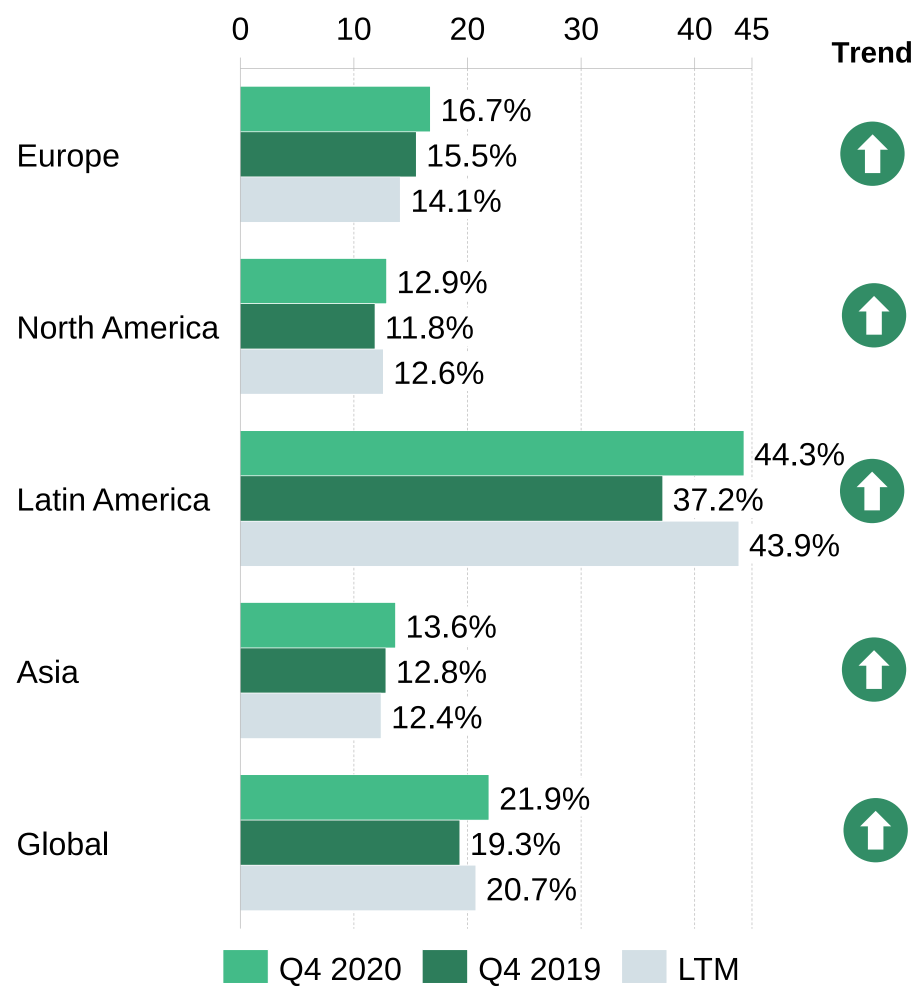
Quarterly EBITDA Margin by segment, Q1’19 – Q4’20, %



Source: Capital IQ, Applied Value Analysis.

All regions showed increased EBITDA margin, and globally margins increased by 2.6 pp. to 21.9% in Q4'20 compared to Q4'19

EBITDA margin by region, Y-o-Y

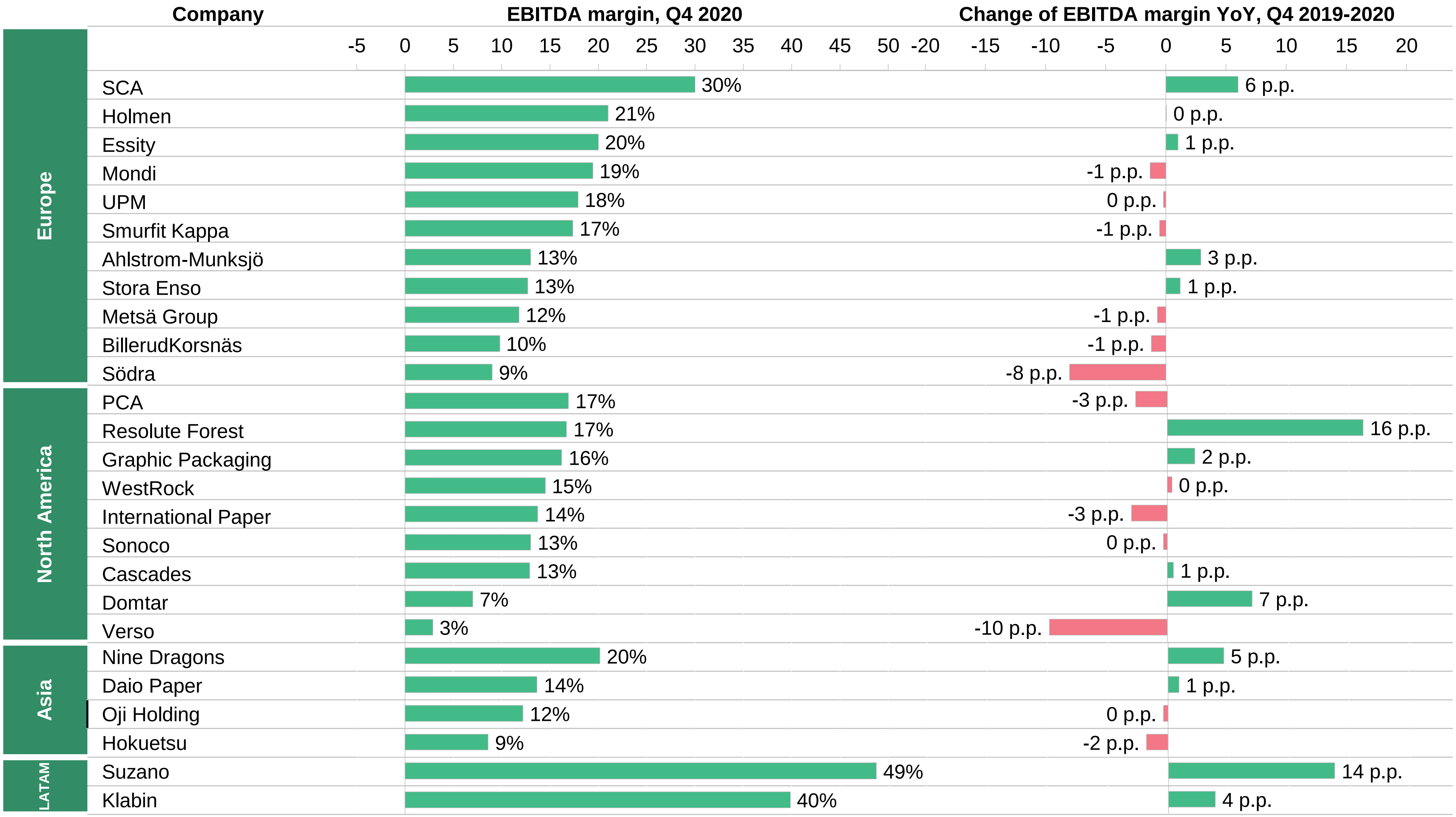


Industry News

- **Domtar** has entered into a definitive agreement to sell its Personal Care segment to **American Industrial Partners** (AIP) for **$920 million**
- To improve its region sales and service to cement customer, **Mondi** opened new paper bags plant with **50 million bags/year** in Columbia in January 2021
- **International paper** sells 90.38% outstanding shares of Olmuksan International Paper to **Mondi**, includes corrugated packaging facilities in Turkey about **€66 million**; the yearly revenue of plant is about **€50 million**
- **West Fraser** will acquire **Norbord** the world largest OSB producer for **$3.1 billion**, which will help it to build and improve its position in North America and Europe
- **UPM** closed its communication paper mill at Jämsä River, leading to capacity reduction of graphic paper, newsprint and coated mechanical paper by **720,000, 450,000 and 270,000 tonnes**, respectively
- **Domtar** will convert its Kingsport paper mill to **producing recycled containerboard** which is expected to be completed in 2022, with a **600,000 ton** capacity

Source: Capital IQ, RISI, Annual & quarterly reports, Applied Value Analysis.

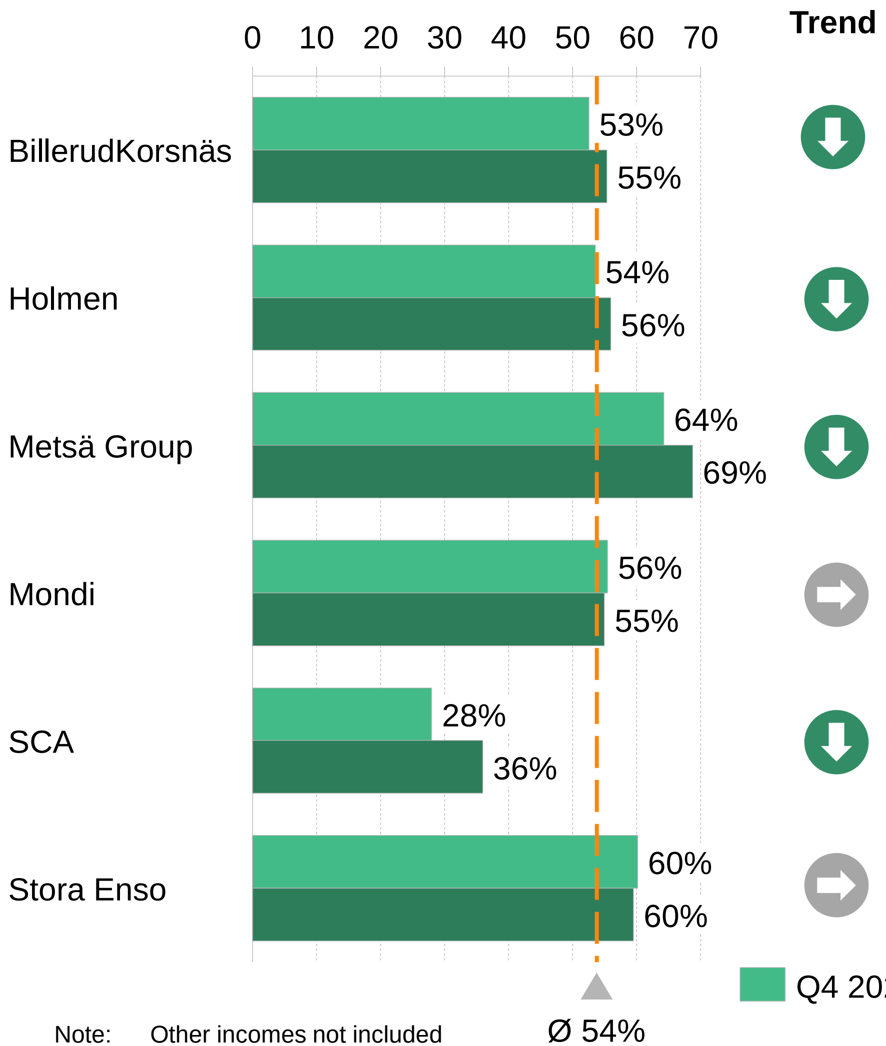
Industry players demonstrated mixed profitability results, while SCA increased its margin and Resolute & Domtar displayed a strong recovery



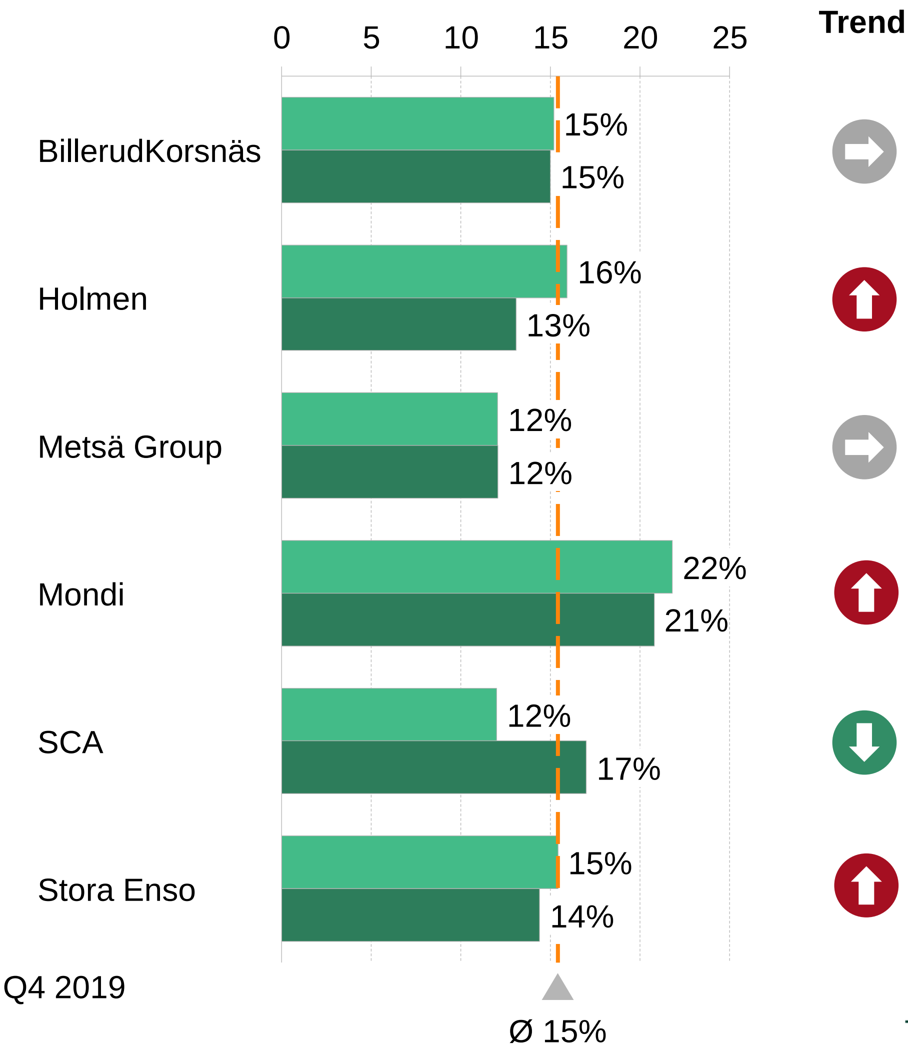
Source: Interim & Annual Reports, Capital IQ, Applied Value analysis.
Nippion Paper Ebitda is not included due to lack of information for Q4 2020

Peers managed to control raw material over sales with Metsä leading Q4 performance, while most faced an increased portion of personnel costs

Raw material over Sales
Q4'20 vs Q4'19, %



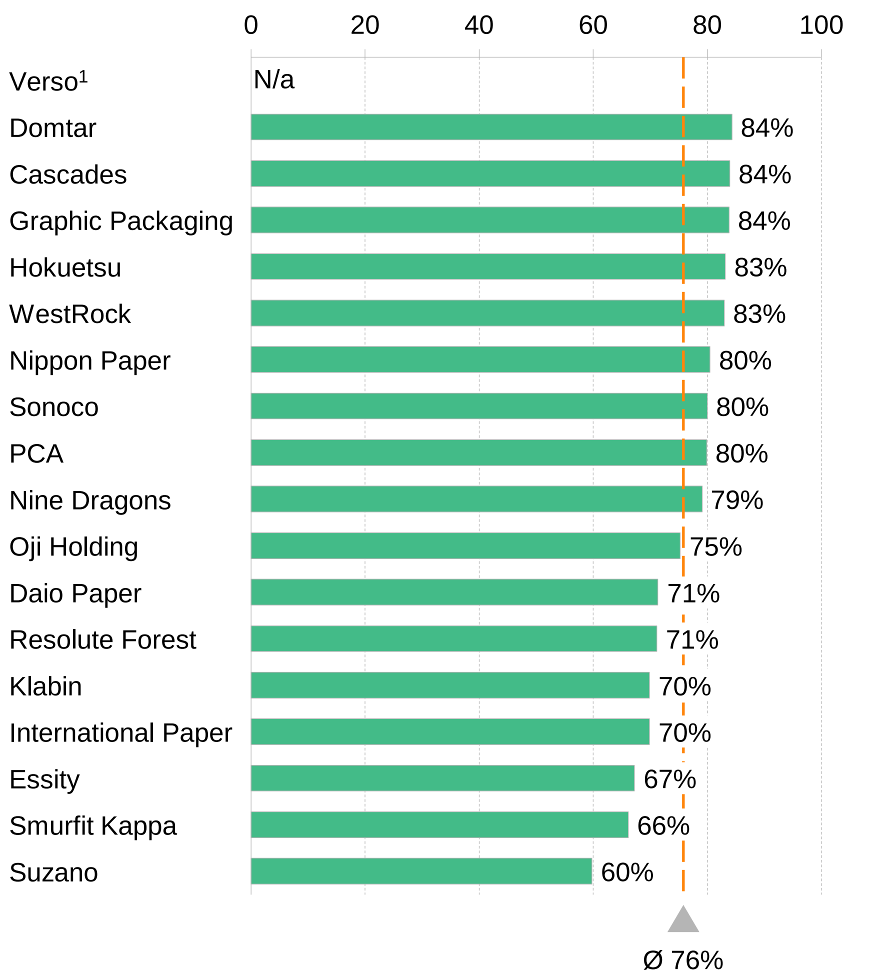
Personnel costs over Sales
Q4'20 vs Q4'19 %



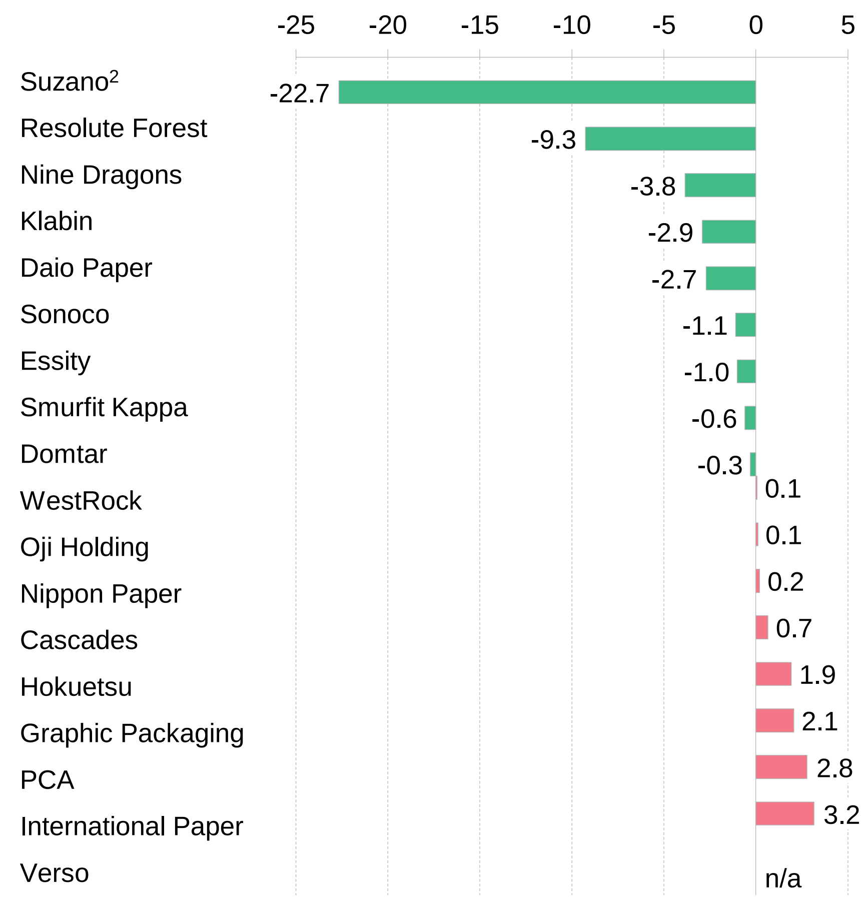
Note: Other incomes not included
Source: Capital IQ, Annual & quarterly reports, Applied Value Analysis.

COGS over Sales performance varied among industry players and Resolute Forest outperformed its peers by reducing COGS by 9.3 pp. to 71% in Q4

COGS over Sales
Q4'20



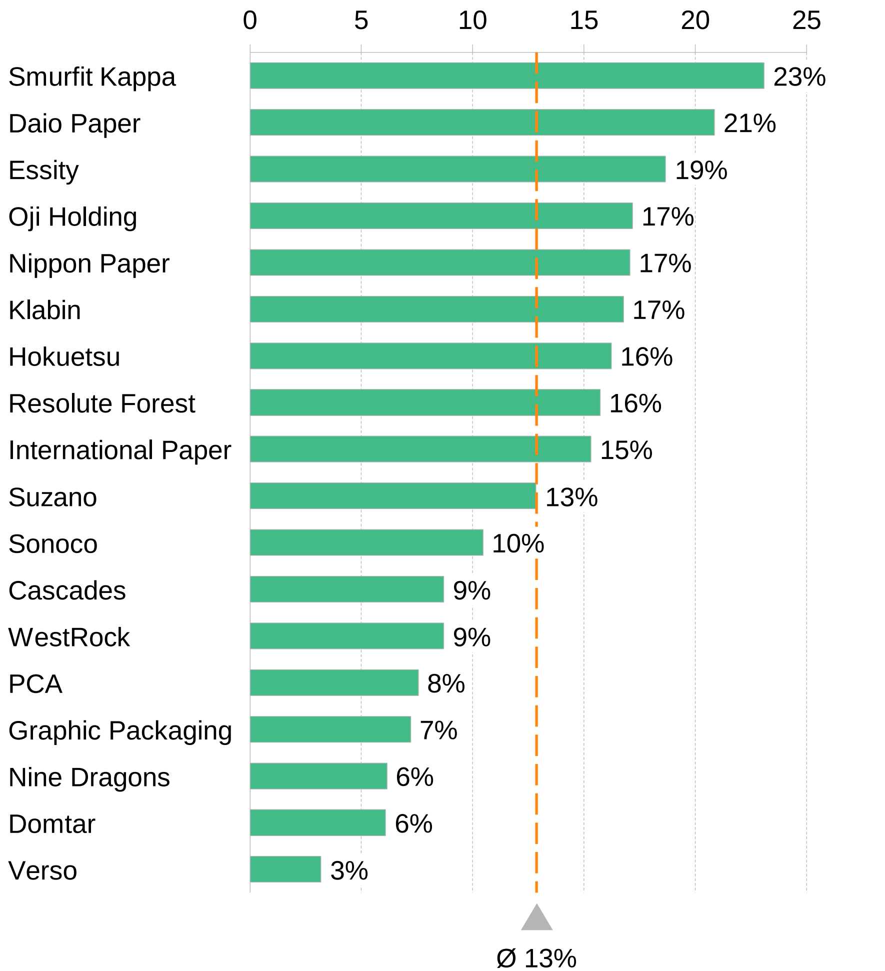
COGS over Sales Development by Company
Delta(Q4'20 vs. Q4'19), pp.



Note: 1) Verso figures affected by Duluth mill write-off 2) Suzano figures affected by Fibria merger
Source: Capital IQ, Annual & quarterly reports, Applied Value Analysis.

Some companies managed to reduce their SG&A costs in the quarter, Graphic Packaging saw the largest decrease by 3.5 pp. to 7%

SG&A over Sales
Q4'20



SG&A over Sales Development by Company
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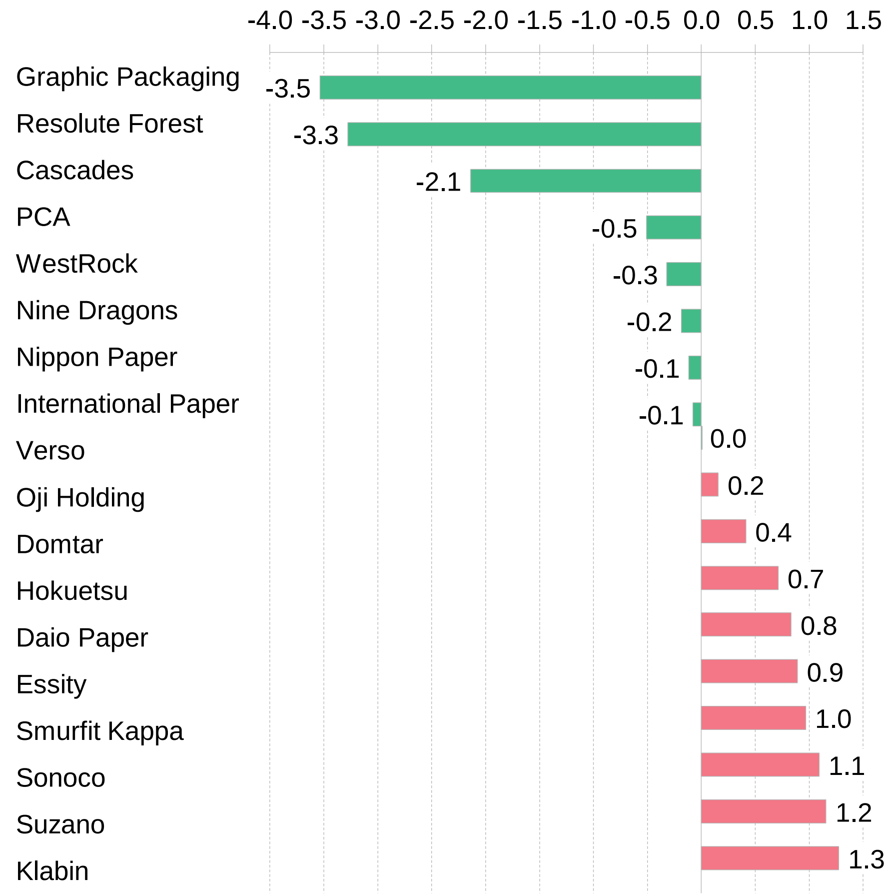
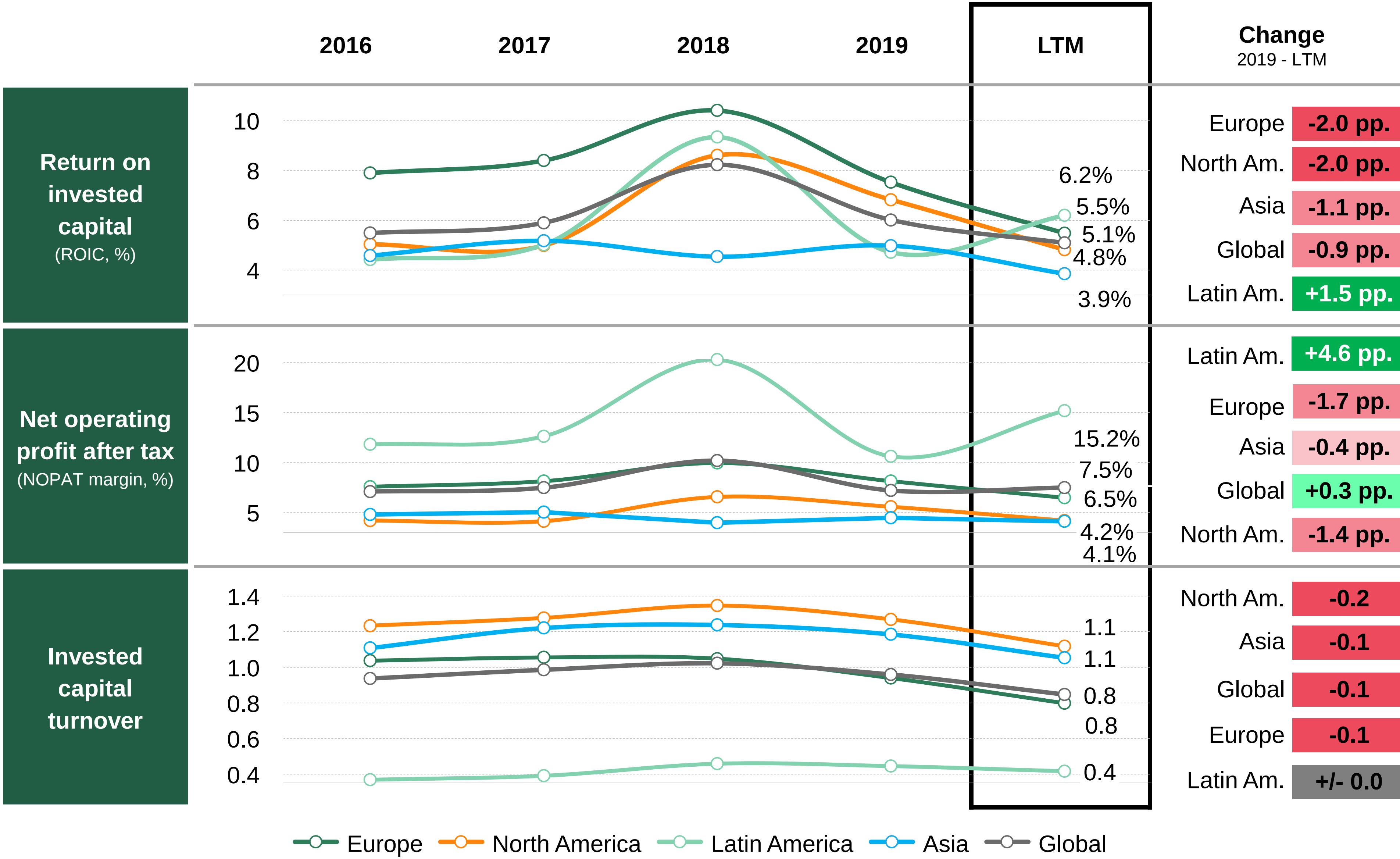


Source: Capital IQ, Annual & quarterly reports, Applied Value Analysis.

ROIC declined across most regions in LTM except for Latin America which has increased profitability while stabilizing in capital efficiency



Source: Capital IQ, Annual & quarterly reports, Applied Value Analysis.

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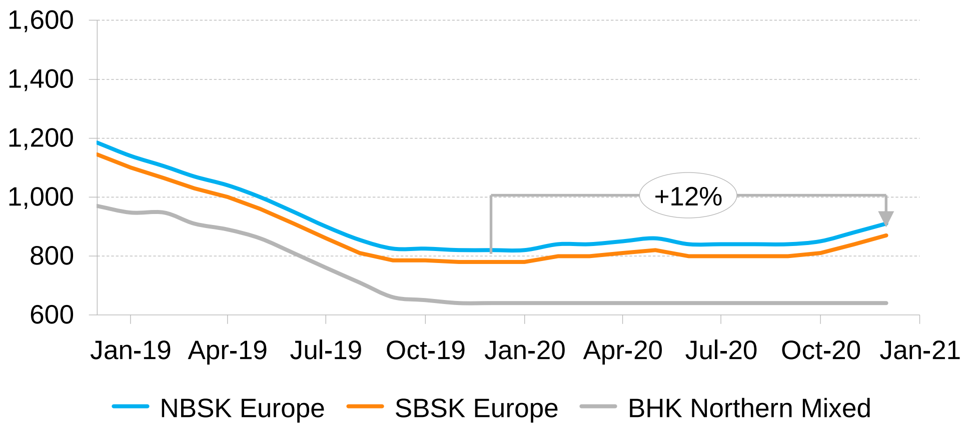
Source: RISI, Interim & Annual Results.

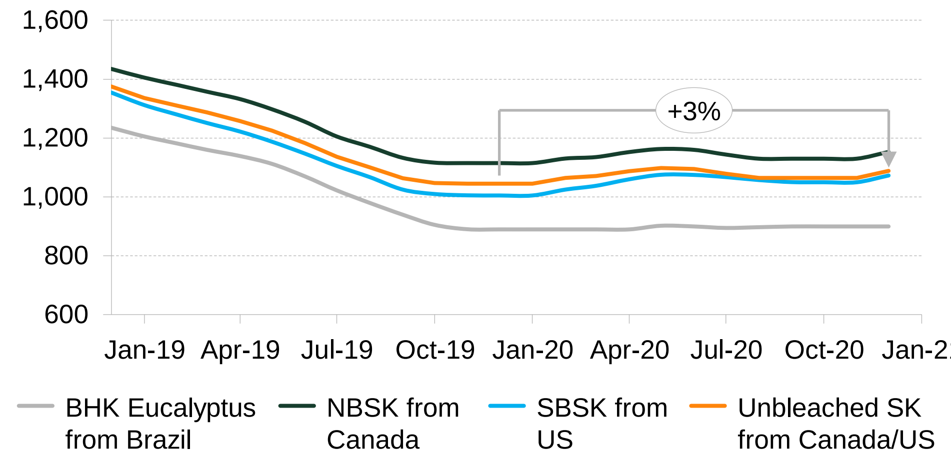
Global pulp prices increased by 3-21% Y-O-Y and experienced a noticeable growth across all regions in Q4 2020

Global Pulp Price Development, Last 24 Months

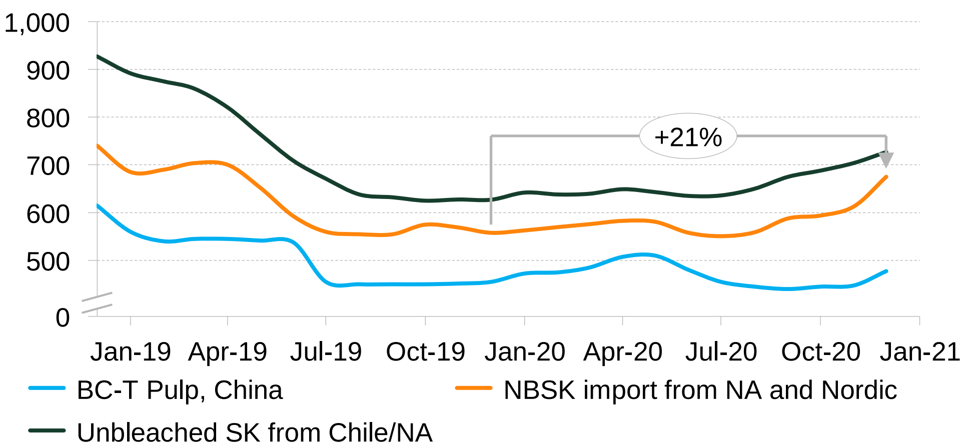
Northern Europe, USD/Tonne



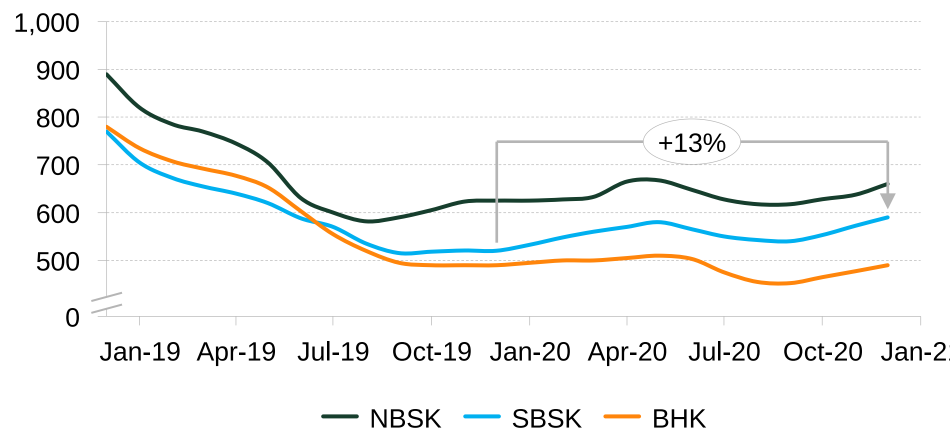
US East, USD/Tonne



Asia, USD/Tonne



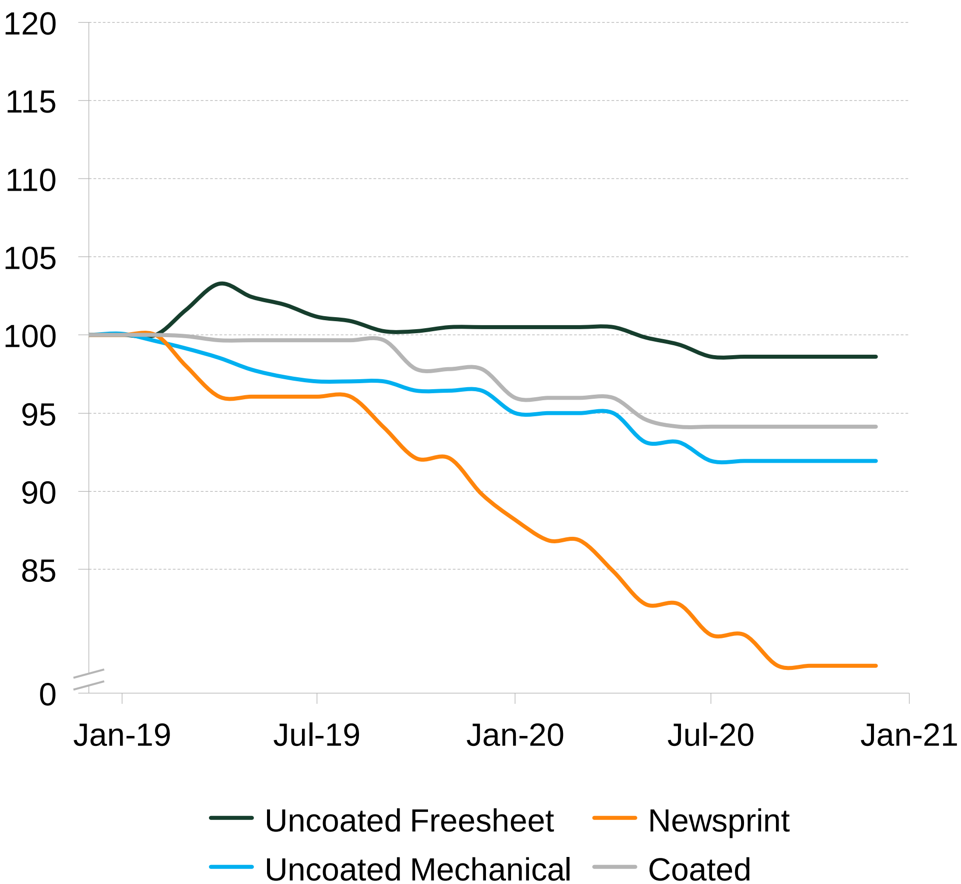
US East spot prices, USD/Tonne



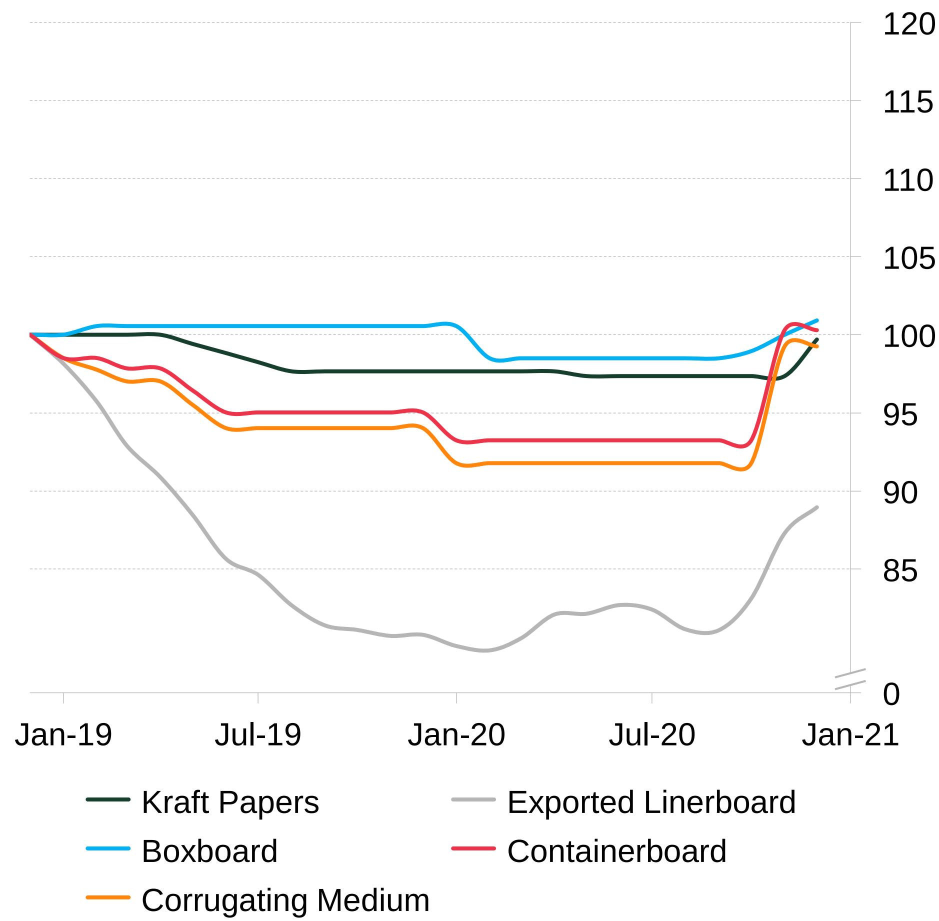
Note: Midpoint price levels.
Source: RISI PPI Pulp & Paper Week.

All kinds of packaging paper prices continued increasing in this quarter while graphic paper prices were relatively flat

Graphic paper prices
Avg. indexed price per product segment, USD/ton



Packaging paper prices
Avg. indexed price per product segment, USD/ton

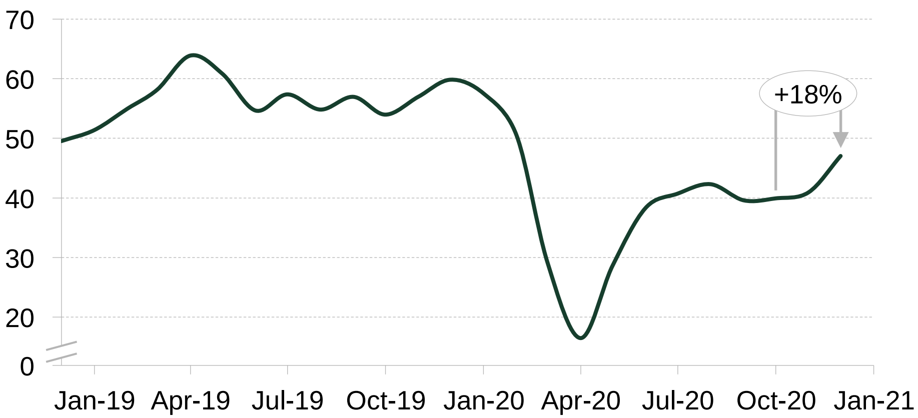


Note: Midpoint price levels.
Source: RISI PPI Pulp & Paper Week.

Crude oil price increased by 18% while most currencies continued its appreciation against USD in Q4

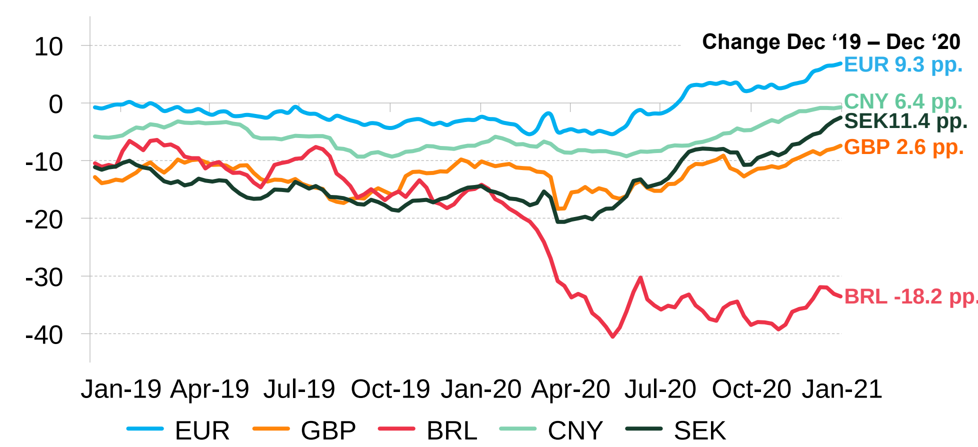
Commodity & Currency Price Development, Last 24 months

WTI Spot Crude Oil, USD/Barrel



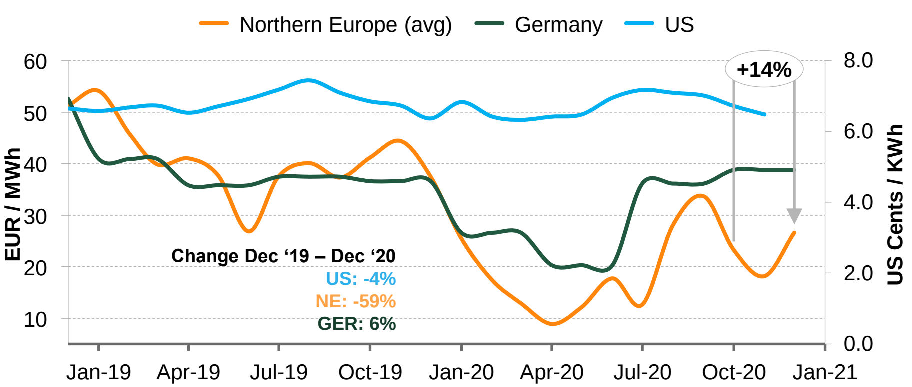
Source: US Energy Information Administration.

Currency appreciation against USD, %



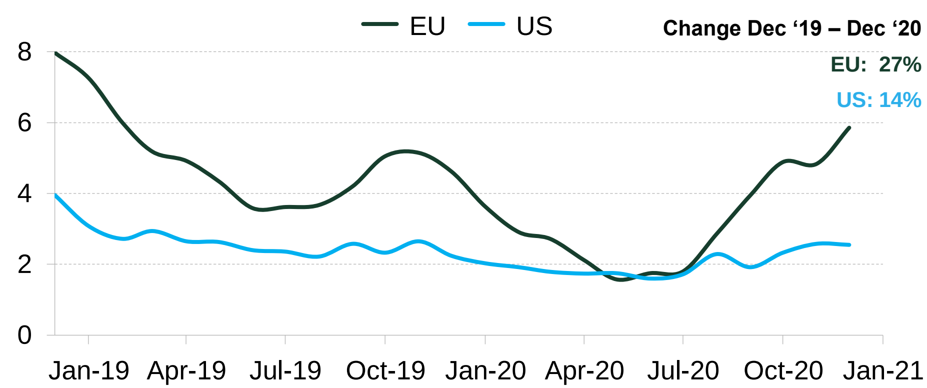
Source: S&P Capital IQ.

Electricity



Source: US Energy Information Administration (Industry retail price), Nordpool, EEX (EGIX Germany).

Natural Gas, USD/mmbtu



Source: NYMEX (Natural Gas spot price at the Henry Hub terminal in Louisiana), World Bank (EU average import border price).

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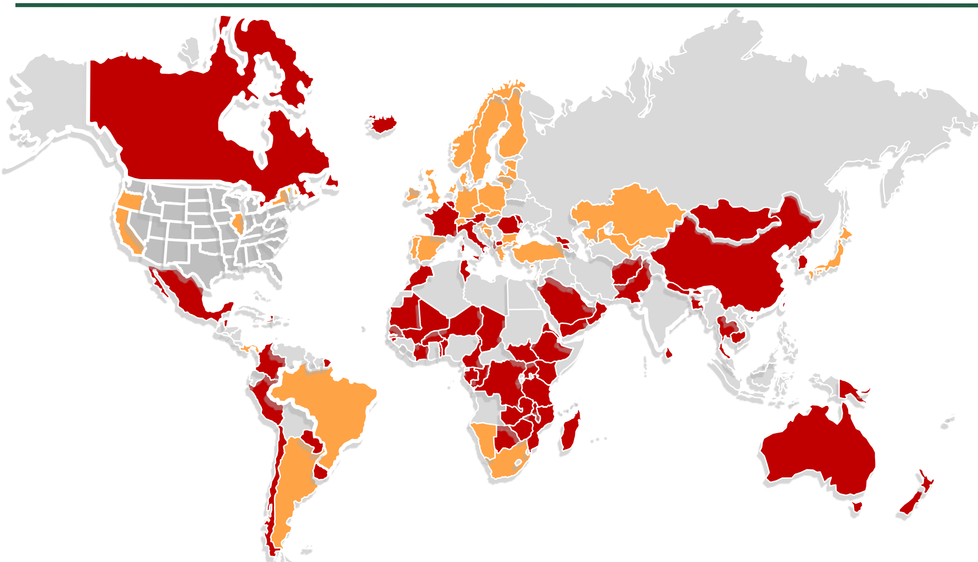
More than 55 countries announced restriction on the distribution and usage of plastic bags, while other countries are under consideration

Overview of Worldwide Plastic Ban

Full or partial ban On Plastic | Charge/tax on Plastic | No Policy Released/Under Consideration



Relatively Weak Policy/Charge or Tax on Plastic

- Japan only announced a fee charge on plastic bags
- The ban on supplying plastic straws, stirrers and cotton buds came into effect since October 1,2020 in England
  - A 5p charge on single-use bags will be doubled to 10p and extended to all retailers from April 2021
- Mexico only banned single-use plastics in its capital Mexico City from January 1st, 2021
- No national plastic ban or fee, but 8 states have imposed ban or restriction on single-use plastic bags, such as New York and California
  - Only paper bags, reusable plastic bags (Minimum 2.25mil thick) and compostable bags allowed

Tight Policy/Full or Partial ban on Plastic

- Canada announced a series of single-use plastic will be banned by 2021 and it aims to achieve almost zero plastic waste by 2030; Items including plastic bags, straws, cutlery and food packaging
- South Australia banned the use of single-use plastics which will start on March 1, 2021
- New Zealand totally banned single use plastic bags since 2018
- Thailand banned plastic bags since 2020, it aims to ban 7 most common plastic items by 2025 including disposable bags, cups and straws
- South Korea prohibited usage of plastic material that are difficult to recycle such as PVC and colored PET
- China Plastic total ban take effect on January 1, 2021， including plastic bags, tableware and packaging material
- 34 out of 54 African countries passed laws to ban plastic usage
- All single-use plastic cutlery, plates, straws, food containers and cups will be banned in EU starting from 2021
- Chile imposed national-wide ban on plastic bags in 2020
- In Brazil, all plastic bags were banned in 2015 and plastic straws were banned in 2019
- Colombia cut 80% of its plastic bag consumption in 2020, and it plans to prohibit plastic bags completely by 2025
- Argentina's capital banned plastic bags in January 2017
- In 2018 Uruguay banned production and commercialization of all single-use plastic bags

Source: AV analysis

Several companies have invested in sustainable paper cutlery and compostable plastic packaging innovation and capacities

Company	Description
Ahlstrom-Munksjö	› Ahlstrom-Munksjö has launched its new brand of CelluSnack snack packaging papers in June 2020 which is oil and grease resistant
Graphic Packaging International	› Graphic Packaging developed sustainable paper-based packaging solutions for food and Beverage, such as KeelClip, a substitute for beverage's plastic ring and shrink film
Stora Enso	› Stora Enso invested €9 Mn in pilot plant for bio-based plastic packaging material that mainly targets the food and beverage industry › Stora Enso has started the manufacturing of formed fiber food service products at its Hylte Mill in Sweden in order to meet accelerating market demand
Cascades	› Cascades designs 100% recycled and recyclable plastic containers for largest fresh baby lettuces producer Vegpro in Canada
Metsä, Valmet	› Metsä Group's innovation company Metsä Spring and Valmet began construction of the 3D fiber product pilot plant in Äänekoski, Finland
Georgia-Pacific	› Georgia-Pacific's $100 Million Expansion of Bowling Green Dixie Facility was Completed in November 2020
Smurfit Kappa	› Smurfit Kappa made $36 million investment on its US paper sack business expansion, plant will start operation in 2021, the sack production will be increased by 100 million units per year

Source: AV analysis

Converting from plastic to paper packaging or 100% recyclable plastic packaging is a key area for many leading companies

2019

- ALDI: Eliminating the usage of plastic on food packaging since 2018, it removed 6500 tonnes plastic
- SAMSUNG: Replacing plastic component in packaging with paper
- Iceland: Reducing the plastic use on fruit and vegetable with paper by 93%

2020

- LEGO: Replacing plastic bags with recyclable paper starting in 2021
- TESCO: Using reusable containers for online delivery products
- Starbucks: Eliminating plastic straws in worldwide store by 2020
- DUNKIN' DONUTS: 100% of its store moved from foam cups to new paper cups with recyclable lids

2025

- Walmart (Save money. Live better.): 100% recyclable packaging for private brands by 2025
- Nestlé: By 2025 all Nestle's packaging is 100% recyclable or reusable
- pepsi: Strive to design 100% of packaging to be recyclable, compostable, or biodegradable
- McDonald's: Eliminating plastic lids and straws. Its goal is 100% of its packaging should be recycled or renewable

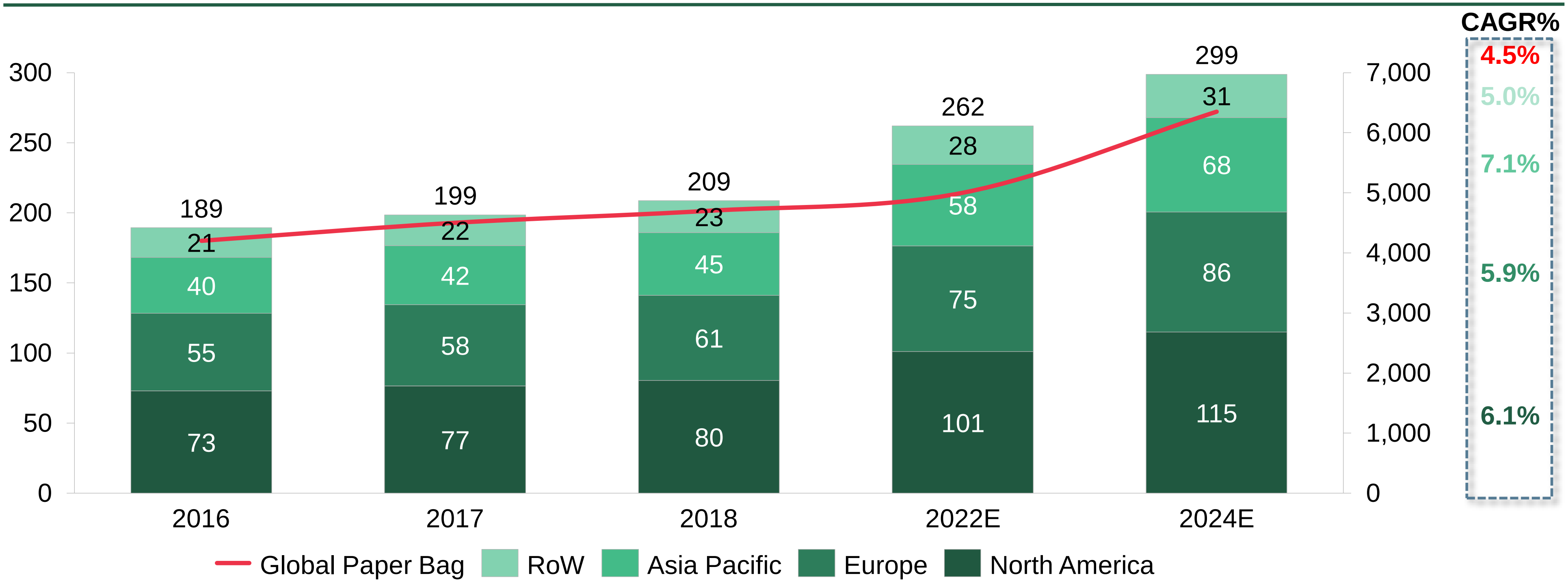
2030

- L'ORÉAL: All plastics packaging will be either from recycled or bio-based sources;
- Sainsbury's: To halve plastic packaging by 2025
- Coca-Cola: Working to create a bottle made 100% from paper
- P&G: Aiming to reduce global use of virgin plastic in packaging by 50%
- AVON (the company for women): 100% recyclable or reusable packaging for all products

Source: AV analysis

Widespread global sustainability efforts could cause the compostable cutlery and paper bag market to grow sharply in the next few years

Demand of global compostable cutlery and paper bag market review and outlook, 2016 to 2024, MUSD



- The global compostable tableware and bag market is driven by governments' environment protection rules, which forces compliance from food and hospitality industry, hence promoting stable demand growth; the market is forecasted to reach 299 million in 2024
- Global paper bag market is expected to grow at 4.5% CAGR and may reach 6.35 BUSD in 2024
- Asia Pacific compostable cutlery market is predicted to have the highest CAGR at 7.1% from 2016 to 2024, meanwhile, North America is the biggest market with 6.1% CAGR, and its market size is expected to reach 115 million in 2024

Source: AV analysis
Note: Paper bags including regular retail paper bag, paper bag for food and beverage ect.

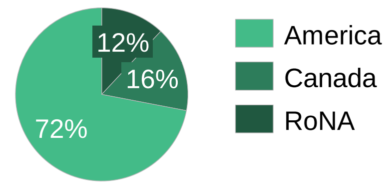
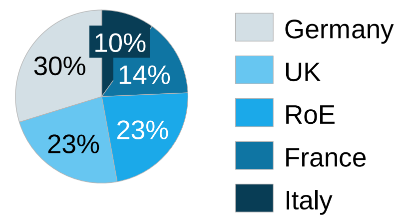
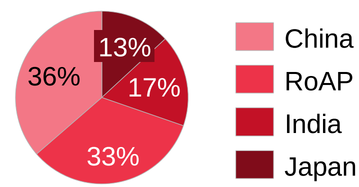
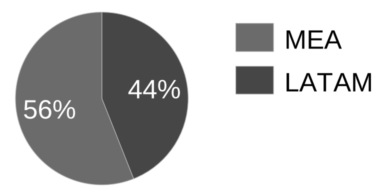
Market of global compostable cutlery and paper bag is expected to thrive, mainly driven by tight worldwide environment protection regulations

Drivers of global compostable cutlery and bag market

Main Drivers	Short Term Impact	Mid Term Impact	Long Term Impact
People's awareness of environmental protection is increasing	→	→	↑
Enforcement of plastic ban and environment protection regulations by various nation's governments	↑	↑	↑
Increasing demand from end users (e.g., Householder, grocery, restaurants)	→	↑	↑
The harm and threat of plastic to the environment	↑	↑	↑

↑ **High** → **Medium** ↓ **Low**

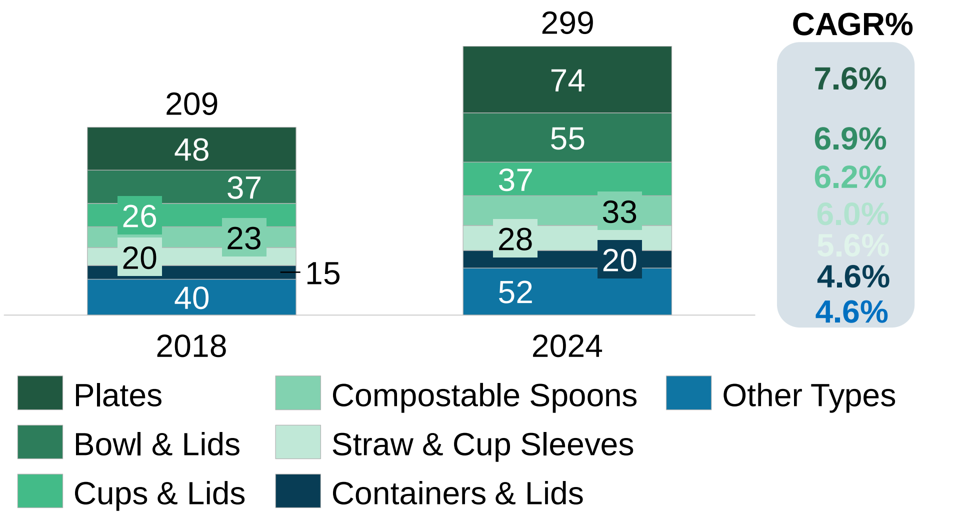
Compostable cutlery market breakdown by regions MUSD

Compostable Cutlery	Rank by Countries Market share of 2024	Market Value of Top Performer[1] CAGR%
North America		84 (6.4%)
Europe		20 (6.8%)
APAC		24 (7.9%)
RoW		14 (4.7%)

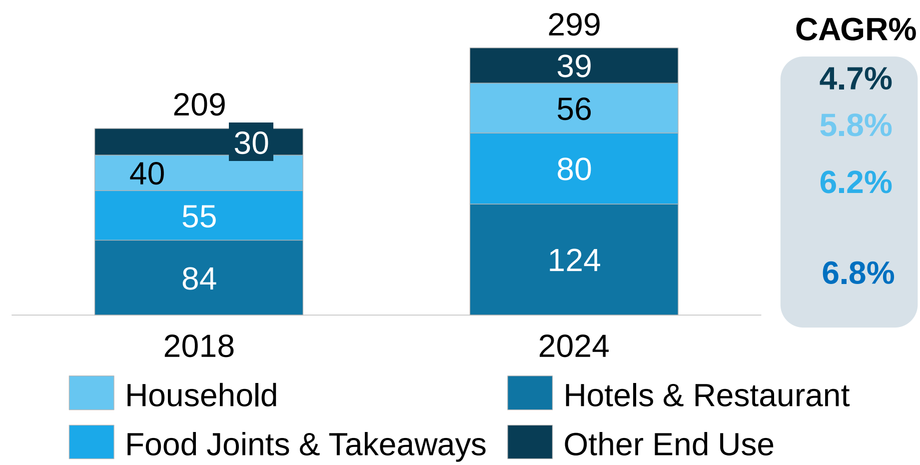
Note 1: Top performer means the country with the biggest market share of the region
Source: Infinium Global Research, AV analysis

Global compostable cutlery market is projected to boost in the next 4 years, rising to $299M in 2024 driven by high demand from restaurants & hotels

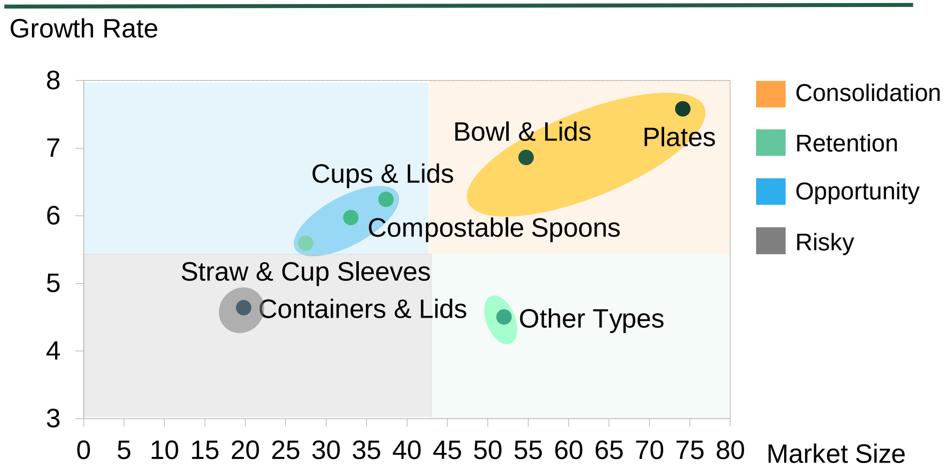
Global market size breakdown of compostable tableware by segment MUSD



Global market size breakdown of compostable tableware by end users MUSD



Performance of segments by market size and growth rate in 2024



- Plates and Bowls & Lids are predicted to maintain their dominant position until 2024 which account for 43% of the total market. Companies should consider investing in those two segments; in contrast, investments in container & lids are risky due to relatively small market size and low growth rate
- Restaurants, food joints & takeaways are the primary end-users which are expected to rise at CAGR 6.8% and 6.2% respectively. Especially in China, the demand will be thriving due to its well-developed food delivery industry. Furthermore, expanding fast-food chains will sustain US compostable cutlery market growth

Source: AV Analysis

Applied Value Pulp & Paper Report

Executive Summary & Introduction

Financial Benchmarking

Market Trends

Deep dive: Global compostable packaging & cutlery market

Applied Value Presentation

Applied Value is a management consulting & investment firm founded on the principles of lean growth and entrepreneurship

1997

Background as an internal change agent in the **Kinnevik Group**…

KINNEVIK

…today, a hands-on consultancy supporting clients **across industries**

2021

Industries of Expertise

- Chemicals and Process
- Industrial & Engineering
- Telecom and Media
- Consumer Goods
- Automotive

Applied Value Group

Investments

Management Consulting

Social Impact

Selected portfolio companies

HUMAN CARE, COSMOSID, Division 5 Inc Steel Fabrication, rivermeadow, Bake My Day, KAUNIS IRON, PNP Stålhallar, Sourcing Value, Söderfors Steel

APPLIED VALUE

C10, HAND IN HAND, Straight Ahead Ministries, World Vision, Exodus, Opportunity International, Wenham House, KRIS, CODE FOR LIFE

ROI driven

Fact-based

Practical over theoretical

Hands-On

Global perspectives

Applied Value challenges and supports global clients across industries from four offices

Selected clients

- GM
- Ahlstrom Munksjö
- Ericsson
- SCA
- Facebook
- Epiroc
- Whirlpool
- BillerudKorsnäs
- Verso
- Sony
- BMW
- Fresenius Medical Care
- Telenor
- B/S/H/
- Daimler
- Vestas
- FCA Fiat Chrysler Automobiles
- WestRock

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Our Lean Growth framework is based on Focus, Simplicity, Speed – guiding principles to raise client performance

Lean Growth

Focus
- ✓ Define strategic focus
- ✓ Excel in key capabilities
- ✓ Use partners for non-core activities

Simplicity
- ✓ Reduce complexity
- ✓ Simplify and standardize processes, organization and supply chain

Speed
- ✓ Set targets
- ✓ Measure and improve
- ✓ Reduce Market-Customer-Cash Time

Example Offerings

- **Strategy & Organization -** Go-to-Market Strategy, G&A Productivity, Capital Management, Digitalization & IT
- **Commercial Excellence & Pricing -** True Profitability, Portfolio Optimization, Sales Efficiency, Pricing Model, Governance
- **Sourcing & Procurement -** Sourcing Strategy, Negotiations, Risk Management, SRM, Competence Development
- **Supply Chain & Operations -** Supply Chain Strategy, Inventory Management, Operational Excellence
- **Product & Innovation -** Portfolio Profitability, VA/VE, R&D Strategy & Efficiency, Product Lifecycle Management
- **Mergers & Acquisitions -** Commercial Due Diligence, Operational Due Diligence, Post-Merger Integration

Pulp & Paper is one of our three main client industries

Industry	Examples of Applied Value Engagements		Client results
Pulp & Paper	› Turnkey engagement to improve margins and capital turnover over a five-year period › Engagements included: staff optimization, product mixture optimization, capital rationalization, sourcing, and other key areas		› EBIT improved from 4% to 20% over a 4-year period › Capital Turnover Ratio was improved from 0.55 to 0.9
Telecom	› More than 200 engagements carried out in close collaboration with clients for over 10+ years › Acted as key advisor in major turnaround › Prime focus on organizational and sourcing efficiency in an industry with continuous cost pressure		› Operating expenses cut by more than 60% during turnaround › Clients have consistently outperformed industry
Automotive	› Consecutive work for 10+ years within Sourcing across multiple commodities, including more than 200 fact-based negotiations supported for 50+ commodities › Hands on strategy and implementation support of steel purchasing for 8+ years		› Continuous return of 8-12 times fee to client › Clients have consistently managed to buy steel below market prices

Our Pulp & Paper practice has been serving world leading organizations since our founding

Overview of Applied Value's Pulp & Paper Experience

Applied Value has continuously advised global market leaders in the Pulp & Paper industry:

- Key advisor to top executives during several successful turnarounds using our lean growth framework
- Improving business performance of Pulp & Paper and Chemicals companies, as well as equipment & services providers

We have conducted 50+ engagements improving Cost & Capital efficiency and Revenue Growth for our Pulp & Paper clients:

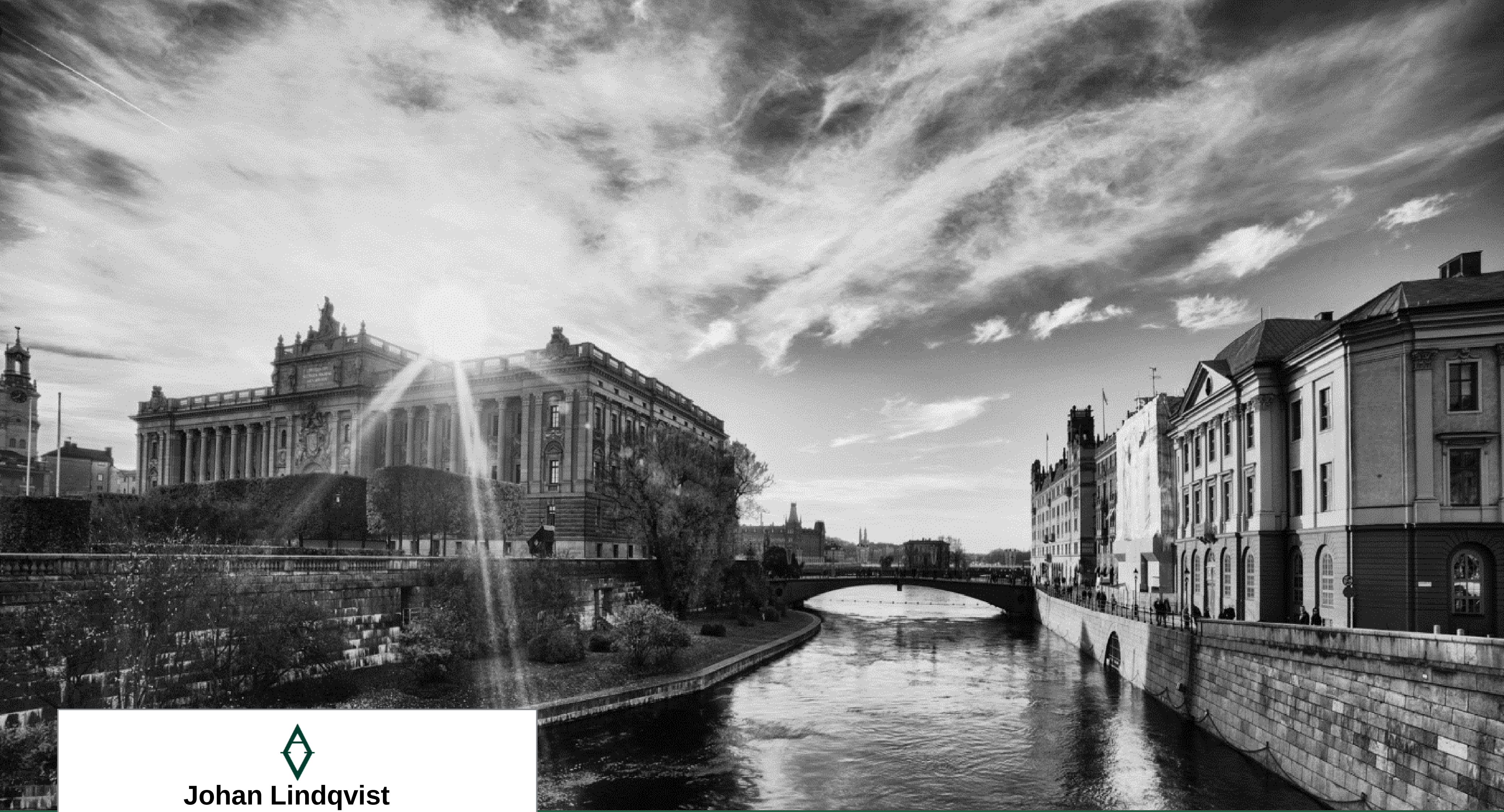
- EBIT improvement program from 4% to 20% over a 4-year period for an Integrated Pulp & Paper Company
- Sourcing Improvement Program covering Services / Chemicals / Logistics / MRO for a Global Packaging Company
- External Distribution System Optimization for European Manufacturer of Liquid Paperboard and Sack Paper
- Product Strategy for an Integrated Pulp & Paper Company
- Operations Improvement Program to improve Unit Output and Labor Efficiency for an Integrated Pulp & Paper Company
- SG&A efficiency for an Integrated Pulp & Paper Company

We are known for **driving change** and **creating immediate impact** for our clients

Applied Value has strong expertise in several areas relevant for driving improvements in the Pulp & Paper industry

Applied Value's Pulp & Paper Expertise

Applied Value Expertise	Improvement levers	Typical results
Commercial Excellence	› Product and customer focus › Pricing › Sales process and organization › People, culture, and incentives	› 20-30% reduction of SG&A costs › Improved customer and product profitability › Top line growth
Process Speed	› Complexity reduction › Change of policies › Elimination of low-value add activities › Streamline Ways-of-Working	› "Order-to-Cash" lead time reductions of 20-40%
Mill Efficiency	› Operational benchmarking › Maintenance efficiency › Operator and production overhead efficiency › OEE improvements	› 5-30% cost reduction, depending on category
Sourcing Excellence	› Commercial strategy › Value Analysis / Value Engineering › Consumption strategy	› 4-12% reduction of COGS in long-term Sourcing Programs › 15-25% reduction of spend in selected categories (mainly indirect material)



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APPLIED VALUE GROUP