SAPPI
From a single mill in South Africa, Sappi has evolved to become one of the largest producers of pulp, paper, packaging and specialty papers in the world

Containerboard/OCC
Early January sees light activity and flat pricing for OCC as China demand is quiet
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Buckman
Looking Good at 82
From a single pulp and paper mill producing paper from straw in 1938, Sappi has evolved into a global provider of dissolving wood pulp, packaging and specialty papers, and graphic papers, as well as biomaterials and biochemicals.

Sustainable Practices
Buckman’s new CEO, Junai Maharaj, says his company is working toward a more innovative and sustainable future and is committed to helping the pulp and paper industry do the same by focusing on greener chemistries and smart technologies.

Market Insight
Containerboard/OCC – Early January sees light activity and flat pricing for old corrugated containers (OCC) as China demand is quiet since the first batch of import permits were issued by China’s Ministry of Environmental Protection.

Policy Matters
Trade, transportation, paper-options safeguards, regulations are among AF&PA’s top 2018 advocacy priorities.

Of Interest - Bioproducts
FPInnovations and Resolute Forest Products are collaborating on the implementation of a TMP-Bio pilot project in Thunder Bay, Ontario that will focus on developing new ways to efficiently produce and commercialize innovative bio-chemicals derived from wood.

On the cover: Employee checking reels at Sappi’s Stockstadt Mill in Germany. Photo courtesy of Sappi.
McDonald’s – I’m Lovin’ It

By John O’Brien, Managing Editor
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In April of 2014, McDonald’s announced a goal to source 100% of its fiber-based packaging from certified or recycled sources, with a preference for Forest Stewardship Council (FSC) certified materials, by 2020. As of the end of 2015, 53% of McDonald’s fiber-based packaging is certified (FSC, PEFCTM or PEFC-endorsed) or recycled, up from 23% in 2014.

In mid-January of this year, McDonald’s expanded on its 2014 goal, stating that by 2025, 100 percent of its guest packaging will come from renewable, recycled, or certified sources with a preference for Forest Stewardship Council certification.

Just to be clear, McDonald’s defines “guest packaging” as including: hot cups, cold cups, carry-out bags, folding cartons, clamshells, wraps, food service bags, napkins, salad bowls, Happy Meal cartons, and drink carriers made from paper/board sold to its global system.

Also by 2025, the company plans to recycle guest packaging in 100 percent of its restaurants.

As McDonald’s says, these are “aspirational goals.” Nevertheless, they’re moves in the right direction, and when a company with global brand recognition such as McDonald’s speaks, people listen. As the fast food giant points out, its size, scale, and reach gives it the ability to “create positive change around the world.”

To bring size, scale and reach into perspective, McDonald’s has over 37,000 restaurants in more than 100 countries.

“As the world’s largest restaurant company, we have a responsibility to use our scale for good to make changes that will have a meaningful impact across the globe,” said Francesca DeBiase, McDonald’s Chief Supply Chain and Sustainability Officer. “Our customers have told us that packaging waste is the top environmental issue they would like us to address.

Our ambition is to make changes our customers want and to use less packaging, sourced responsibly and designed to be taken care of after use, working at and beyond our restaurants to increase recycling and help create cleaner communities.”

McDonald’s said it plans to work with leading industry experts, local governments and environmental associations, to improve packaging and recycling practices. By doing so, the company hopes to develop smarter packaging designs, implement new recycling programs, establish new measurement programs and educate restaurant crew and customers.

“McDonald’s is committed to sustainability as a core business practice today and as our company grows. And, the environmental impact of our packaging is a top priority. Many efforts are under way to improve the sustainability of our packaging,” the company states.

As of 2017, 50 percent of McDonald’s guest packaging comes from renewable, recycled or certified sources. “We’ve also made significant progress on fiber-based packaging, which comprises the vast majority of what we use,” the company added.

McDonald’s also plans to eliminate foam packaging from its global system by the end of 2018. “While about 2 percent of our packaging, by weight, is currently foam, we believe this small step is an important one on our journey. These actions represent successes that will continue to raise the bar for our system and our industry,” McDonald’s said.

With the increasing demand for sustainable products, paper manufacturers are developing and expanding their packaging product portfolios to include packaging solutions that will, in turn, allow companies like McDonald’s to meet their future sustainability goals — and I’m lovin’ it.
TransForm is a new generation of forming fabric technology incorporating innovative new fabric structures with proprietary, game-changing materials delivering superior performance on your demanding paperboard and packaging grade machines.

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NORTH AMERICA

Graphic Packaging Completes Combination with International Paper’s North America Consumer Packaging Business

Graphic Packaging Holding Company on Jan. 2 announced that it completed the combination of Graphic Packaging’s existing businesses with International Paper’s North America Consumer Packaging business. Graphic Packaging owns 79.5 percent of the combined company and will be the sole manager. International Paper will own 20.5 percent of the combined company. Graphic Packaging has assumed $660 million of International Paper debt and concurrently has amended and restated its senior secured credit agreement.

IP’s transferred business includes approximately 3,900 employees, two coated paperboard mills and three converting facilities in the U.S., along with one converting facility in the U.K.

There is no change to Graphic Packaging’s current Board of Directors or leadership team. International Paper has a 2-year lock-up on the monetization of their ownership interest and cannot purchase GPK shares for a period of 5 years, subject to limited exceptions.

On a combined basis, Graphic Packaging is now a leading integrated paper-based packaging company with approximately $6 billion of projected revenue and approximately $1 billion of projected EBITDA post-synergies.

“We are excited to close this transformative transaction at the start of the new year, and the timing reflects the significant effort of both Graphic Packaging and International Paper employees,” said Graphic Packaging’s President and CEO, Michael Doss. “We are very enthusiastic about the platform for future growth created by this combination and expect the transaction will significantly increase our mill production and converting scale. The combination meaningfully increases our exposure to the growing foodservice market, provides significant runway to realize synergies, and will drive strong financial results.”

“The $75 million in synergies is compelling and will be driven by cost reductions, increased paperboard integration, and procurement and mill efficiencies,” Doss added.

Graphic Packaging is one of the largest producers of folding cartons and paper-based foodservice products in the United States, has strategic folding carton and foodservice converting positions globally, and holds leading market positions in solid bleached sulfate paperboard, coated unbleached kraft paperboard and coated-recycled paperboard.

WestRock Announces Agreements to Acquire Plymouth Packaging

WestRock in December entered into agreements to acquire substantially all of the assets of Plymouth Packaging, Inc., a corrugated packaging company that derives approximately 70% of its sales from its “Box on Demand” systems and corrugated fanfold, and 30% from traditional corrugated box packaging.

Plymouth’s “Box on Demand” systems are located on the customer’s site and use fanfold corrugated to produce custom, on-demand corrugated packaging that is accurately sized for any product type according to the customer’s specifications. Fanfold corrugated is continuous corrugated board, folded periodically to form an accordion-like stack of corrugated material. Plymouth installs “Box on Demand” machines on its customers’ sites under multi-year exclusive agreements for the fanfold corrugated supply.

Approximately 40% of the “Box on Demand” systems’ sales are to e-commerce customers, with the remaining customers serving building products, furniture and other markets.

Plymouth currently supplies more than 100 customers with proprietary “Box on Demand” machines, manufactured by Panotec. As part of the deal, WestRock will acquire Plymouth’s equity interest in Panotec and Plymouth’s exclusive right to distribute Panotec’s equipment in the United States and Canada.

WestRock noted that the acquisition of Plymouth will further integrate its containerboard system. WestRock currently provides one-third of the nearly 60,000 tons of containerboard used by Plymouth annually, and intends to fully integrate these tons after the transaction closes. WestRock expects additional containerboard integration opportunities as the company serves this growing on-demand packaging market.

Plymouth was founded in 1991 by Paul Magnell and is currently owned by the Magnell family. Greg Magnell is currently the president of the company and will continue in his leadership role following the closing of the transaction.

The transaction includes Plymouth’s fanfold corrugated facilities in Battle Creek, Michigan; Ft. Worth, Texas; and Mechanicsburg, Pennsylvania; and all of the company-owned “Box on Demand” machines located in customers’ facilities.
Sofidel rewards its most sustainable suppliers

Sofidel awarded the winners of the second edition of the **Sofidel Suppliers Sustainability Award**, the recognition that the Company, first in the tissue sector, established to promote, disseminate and enhance the best practices and improvement measures implemented by its suppliers in the field of social and environmental sustainability. The award is based on the TenP platform, a self-assessment tool designed and sponsored by the Global Compact Network Italy Foundation, of which Sofidel is a founding member and promoter. In addition to congratulating the winners of the three categories, we extend our thanks to all the suppliers who participated and to the partners Elettric 80, Fabio Perini, Södra, Henkel, ACelli and Kemira (Global Partner), ICP and Pulsar (Premium Partner), Fondazione Ecosistemi (Official Partner), Touchwa.re (Digital Partner) and TWM (Media Partner), who contributed to the event’s success.
Resolute Forest Products on Dec. 21 closed a transaction to acquire the 49 percent equity interest held by The New York Times Company in Donohue Malbaie Inc. for a cash purchase price of C$20 million.

Resolute already owned 51 percent of the shares of Donohue Malbaie.

Donohue Malbaie owns and operates a paper machine with an annual production capacity of 224,000 metric tons of newsprint in Clermont, Quebec. The Clermont operation, which employs 153 workers, also houses all the equipment that produces the thermo-mechanical pulp supplying the machine.

With this transaction, Resolute becomes sole owner of the Clermont operation.

Jim Follo, executive vice president and chief financial officer of The New York Times Company, said, “We’ve relied on the high-quality product produced in the Clermont mill to print The New York Times each day, and we’re grateful to the team there. Resolute will remain our primary supplier of newsprint, and we look forward to a continuing relationship.”

UPM at the end of 2017 closed paper machine 5 at its Blandin mill in Grand Rapids, Minnesota. The closure will reduce UPM’s annual capacity of coated magazine paper by approximately 128,000 tons.

Paper production related to paper machine 6 will continue at the Blandin mill.

On Oct. 24, UPM Paper ENA (Europe & North America) announced plans to reduce graphic paper capacity and optimize operations. Those plans included the permanent closure of PM 5 at Blandin.

Some 148 employees were affected by the closure.

“UPM is committed to the paper business in the long run. This means that we need to continuously adjust our capacity to market developments, to safeguard the economic stability of UPM’s paper business,” said Ruud van den Berg, Senior Vice President, Magazines, Merchants and Office Business at UPM Paper ENA. “We regret the impact this has on our employees.”

Flambeau River Papers (FRP) on Jan. 5 idled paper machine No. 3 at the company’s pulp and paper mill in Park Falls, Wisconsin. The machine produces uncoated freesheet grades.

The mill will continue to operate its two other paper machines that produce specialty paper grades.

According to a local news story in the Price County Review, 82 people are affected by idling of the machine — 67 union employees and 15 management positions.

FRP’s chief executive, William (Butch) Johnson told mill employees that “the key to FRP’s long term viability is the enhanced dedication and focus of all at FRP on increasing technical papermaking capabilities and continued growth of sales of FRP value-added and specialty papers.

According to FRP, the company expanded efforts to grow production of value-added and specialty papers about five years ago, and sales of these grades now represent over 90% of the mill’s capacity on Paper Machines #1 and #2.

“That while papers like laser bond and offset (run on PM #3) have been good fill grades for the mill in the past, they are no longer and jeopardize the mill’s ability to continue operations. Therefore, we will exit production of these commodity-type papers and idle our #3 PM,” Johnson said.

“These painful changes at the mill are necessary to help ensure a viable and sustainable pulp and paper operation for Flambeau River Papers, the City of Park Falls, and all the good paying jobs that the mill provides,” Johnson added.

UPM Permanently Closes Paper Machine 5 at Blandin Mill

Flambeau River Papers Idles #3 PM in Park Falls

Resolute Acquires Full Ownership of Newsprint Operation, Donohue Malbaie
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The Paper2018 Convention Daily will be published in three separate editions (March 11, March 12, March 13) and distributed to all attendees of the convention. The Paper2018 Convention Daily is published by O’Brien Publications, Inc.
NORTHERN AMERICA

Crane Co. to Acquire Boston-based Banknote Producer Crane Currency for $800 Million

Crane Co., a diversified manufacturer of highly engineered industrial products, announced on Dec. 5 that it signed an agreement to purchase 100% of the equity interests in Crane & Co., Inc. ("Crane Currency") from private equity firm Lindsay Goldberg, members of the Crane family, and other shareholders, for $800 million on a cash free and debt free basis.

Founded in 1801, Crane Currency is a pioneer in advanced micro-optic security technology, and a fully integrated supplier of secure and highly engineered banknotes for central banks all over the world. The purchase price represents approximately 8.5x Crane Currency's estimated 2017 adjusted EBITDA of $94 million.

Max Mitchell, President and CEO of Crane Co., said, “Crane Currency is the fastest growing, fully integrated global currency provider in the growing global banknote supply and security industry. Making it part of Crane Co. is a logical extension of our expanding presence in the currency and payment markets. Our combined businesses will be able to offer end-to-end currency and security solutions, from substrate manufacturing and banknote design and printing to micro-optics and banknote validation.”

Crane Currency is expected to have 2017 sales of approximately $500 million with adjusted EBITDA of $94 million.

SOUTH AMERICA

Ahlstrom-Munksjö Eyes Capacity Expansion of Filtration Media in Brazil

Ahlstrom-Munksjö said that it is taking the first step towards a potential capacity expansion plan at its Louveira paper mill in Brazil by acquiring land next to the mill.

The Louveira plant is located in the São Paulo region in Brazil and manufactures filtration media for transportation and industrial applications. The plant employs 110 people.

“Demand for filtration media in South America is expected to continue to grow in the coming years and we clearly foresee the need to increase capacity in the future to support the growing demand for filtration media in the region,” said Fulvio Capussotti, Executive VP of the Business Area Filtration & Performance.

“The acquisition of this land constitutes an important step towards our overall ambition to further develop an industrial platform in South America that will enable us to continue to support our filtration customers in the region for the years to come,” he added.
VPK Packaging Group announced plans to invest in a new paper machine for the production of lightweight recycled containerboard. The machine will have a production capacity of 400,000 tons per year and be operational in 2020. VPK said the location for the new paper machine is currently being assessed.

“With its strategic location within VPK’s packaging network and the possibility of leveraging synergies with the high performing, existing infrastructure and paper making expertise, the Blue Paper site in Strasbourg is a likely investment location,” VPK said.

Bain Capital Private Equity on Dec. 23, 2017 announced that it signed a definitive agreement to acquire Fedrigoni, a leading global producer of specialty papers and self-adhesive labels. The Fedrigoni family will retain a minority stake in the business.

Established in 1888 and headquartered in Verona, Italy, Fedrigoni is expected to generate sales of approximately EUR1.1 billion. The company has manufacturing facilities in Italy (9), Spain (2) and Brazil (2) and a global distribution network, with more than 2,700 employees.

Fedrigoni sells directly to multinational customers, including fashion houses and wine producers, through its own distribution network. The company’s products include special papers for luxury packaging and labels for the food and beverage and pharma industries.

Fortress Paper Ltd. in December sold its wholly owned subsidiary, Fortress Security Papers AG, to the Swiss National Bank (SNB) and Orell Füssli Holding AG (OF), for an aggregate purchase price of CHF21,500,000 (approx. CDN$28 million).

Fortress Paper’s security paper products business includes the Landqart Mill in Switzerland, which produces banknote, passport, visa and other brand protection and security papers.

With the sale, Fortress Paper no longer operates in the security paper products segment.

Chadwick Wasilenkoff, CEO of Fortress Paper, commented, “As was previously announced in the third quarter, Landqart was confronted with the loss of material purchase orders by one of its significant international customers. As a result, Landqart required an injection of new capital and continued financial support of a magnitude that Fortress Paper as the parent company deemed as not strategically viable.

“After evaluating various options, management and the Board of Directors believes the transaction announced [Dec. 20] is in the best interests of the company under these circumstances. The sale of Landqart allows Fortress Paper to focus on growing its dissolving pulp business and pursuing other strategic initiatives,” Wasilenkoff concluded.

Sappi Limited in December signed an agreement to acquire the specialty paper business of Cham Paper Group Holding AG (CPG) for CHF146.5 million (approximately $149 million).

The transaction, which will be funded through internal cash resources, includes the acquisition of CPG’s Carmignano and Condino Mills in Italy, its digital imaging business located in Cham, Switzerland, as well as all brands and know-how.

The acquisition will increase Sappi’s specialty paper capacity by 160,000 tons per year.

“This acquisition further strengthens Sappi’s specialty paper business both in Europe and globally by combining Cham’s strong brands and assets with Sappi’s global reach,” said Steve Binnie, CEO of Sappi Limited. “This transaction will increase profitability and unlock the significant growth and innovation potential inherent within the specialty paper market.”

Sappi expects to close the deal, which is contingent on certain regulatory approvals, during the first quarter of 2018.
Sofidel Sees Record Turnout for its Suppliers Sustainability Award Ceremony

The Sofidel Suppliers Sustainability Award ceremony for its second edition was held in November 2017 in London in the spaces of the East Wintergarden. These annual awards are presented by the tissue production group known for the Regina brand to its suppliers who have distinguished themselves through their efforts towards environmental and social sustainability.

The Sofidel Suppliers Sustainability Award – supported by the Italian Ministry for the Environment and Protection of Land and Sea – was created to encourage, spread and capitalise on best practice and improvement activity carried out by Group suppliers each year in the area of environmental and social sustainability. After the first edition, held in Lucca, the Group decided to hold the award ceremony this year in London, capital of the country in which Sofidel records its highest share of turnover together with Italy.

Nearly 400 suppliers (60 more than last year) from Europe and North America took part in the second edition of the awards.

“Promoting sustainable and responsible growth also means, within our vision, raising awareness and promoting involvement of our partners so we can do more and do it better,” stated Luigi Lazzareschi, CEO of the Sofidel Group. “We’re convinced that building a sustainable future involves a widespread, common commitment, and a need to assume, each within their area and according to their role, new and broader responsibilities.”

The award is based on the “TenP - Sustainable Supply Chain Self-Assessment Platform”, conceived and promoted by the Global Compact Network Italy (GCNI) Foundation, of which Sofidel is a “Founding Promoter Member”. A tool to support self-evaluation of performance built on the Ten Principles (“TenP”) of the UN Global Compact, which, following the most relevant and up-to-date standards and conventions on sustainability, takes the areas of human rights, labor conditions, environmental protection and the fight against corruption into account, with the aim of identifying common challenges and solutions for improving the sustainability within the supply chain.

Sofidel has always employed sustainability as a strategic lever for development and growth, setting itself the goal of reducing its environmental impact to a minimum and maximizing benefits for society. To date, the Group has reduced its direct CO2 emissions into the atmosphere by 19.1% (reduction in carbon intensity, 2009-2016) and limited its use of water within production processes (7.0 l/kg against a benchmark of 15-25 l/kg) and procures 100% cellulose certified by independent third parties with forestry certification schemes (FSC®, FSC Controlled Wood, SFI®, PEFC™).

For further information about Sofidel’s Suppliers Sustainability Awards, please visit: www.sofidel.com.

EUROPE

Mondi Group Agrees to Acquire Powerflute for EUR 365 Million

Mondi Group has signed an agreement to acquire 100% of the outstanding shares in Powerflute Group Holdings Oy, a division of Nordic Packaging and Container Holdings, for a total consideration of EUR 365 million on an enterprise value basis.

Powerflute operates an integrated pulp and paper mill in Kuopio, Finland, with an annual production capacity of 285,000 tonnes of high-performance semi-chemical fluting. Powerflute’s premium semi-chemical fluting is sold to a wide range of customers, primarily for packaging fresh fruit and vegetables, but also other end-uses such as electronics, chemicals and pharmaceuticals. About half of the company’s production is sold in Europe, while the remainder is exported globally.

For the year ended 31 December 2017, Powerflute is expected to generate revenues of around EUR 183 million.

Powerflute will be integrated into Mondi’s Packaging Paper Business Unit.

The deal is subject to competition clearance and customary closing conditions and is expected to close in the first half of 2018.
Rengo Completes Grade Conversion of Kanazu Mill’s No. 2 Paper Machine

Rengo Co., Ltd. said that it recently completed the conversion of its No. 2 Paper Machine (containerboard) at Kanazu Mill (Awara-shi, Fukui Prefecture, Japan) from the production of corrugating medium to having the capability of also producing linerboard.

The No. 2 Paper Machine has the capacity to produce 930 tons per day of linerboard in basis weights ranging from 100 - 210 g/m²; or 810 tons per day of corrugating medium in basis weights ranging from 90 - 200 g/m².

In a press release, Rengo said, “In addition to conversion of the machine, the stock preparation process, which greatly affects the quality of containerboard, has also been revamped to further improve product quality. At the same time, the paper machine has been made to meet the rising demands for lightweight containerboard due to environmental considerations, and reborn as a cutting-edge equipment dedicated to saving both energy and resources.

“This conversion was conducted as part of the work currently underway to restructure the production system and consolidate to five mills. Consolidation will increase the operating rates of paperboard mills, and at the same time improve the supply and demand balance of linerboard and corrugating medium, thereby further strengthening the foundation of the paper business,” the company explained.

Currently, Rengo Group produces containerboard at six mills in Japan.

Valmet to Supply Shanying International with New Containerboard Machine

Valmet will supply an OptiConcept M containerboard machine for Shanying International Holdings Co., Ltd., in the city of Jingzhou in Hubei province, China. The new production line (PM 21) is designed to produce high-quality testliner grades.

The 8,600-mm-wide (wire) board machine will be capable of producing board grades in a basis weight range of 80-130 g/m², and have a design speed of 1,500 m/min. The machine will have a production capacity of about 1,600 tonnes per day.

Valmet’s delivery includes a high-speed OptiConcept M containerboard production line from broke collection to reel. PM 21 will be equipped with OptiFlo Gap headbox with Aqua layering technology for two-layer sheet production with very good layer coverage using only one headbox and a forming unit, as well as OptiFormer Gap former with shoe and blade technology enabling high capacity at high speed.

Valmet’s scope of supply includes related ventilation equipment, runnability components and Valmet DNA machine control and process control systems, and Valmet IQ quality measurement system.

The machine will be delivered with a fabrics package and an additional production and maintenance support after take over. Start-up of PM 21 is scheduled for end of the year 2018.
**Ahlstrom-Munksjö** has named **Hans Sohlström** as President and CEO, effective as of June 30, 2018, at the latest. He will succeed **Jan Åström**, who will retire from the position by June 30. Sohlström is currently the President and CEO of Ahlström Capital Group. Åström has been President and CEO of the company since its creation through the merger of Ahlstrom and Munksjö on April 1, 2017, and before that he was the President and CEO of Munksjö since 2008.

**Catalyst Paper** has appointed **Sean Krajnik** as Vice President & General Manager of the Biron mill in Wisconsin Rapids, WI, effective January 2. Most recently, Krajnik was the mill manager of a major Las Vegas-based tissue, paper and converting facility.

**Elopak** has named **Thomas Kormendi** as its new Chief Executive Officer and President of the Elopak Group. He will join the company April 1. Kormendi will replace **Niels Petter Wright**, who in September 2017 announced his decision to resign to pursue other business opportunities. Currently, Kormendi is CEO at Kezzler AS, a Norwegian company working with the digitalization of packaging.

**Graphic Packaging International, LLC** has announced the appointment of **Spencer Maurer** to Senior Vice President, Americas Foodservice — the business unit created from the combination with International Paper’s Consumer Packaging business. In addition, **Mike Farrell** has been appointed to Senior Vice President, Supply Chain.

**KP Tissue** announced that **Mario Gosselin** has decided to retire from his position as Chief Executive Officer of KP Tissue and Kruger Products L.P. as of March 8, 2018 after almost 40 years with Kruger. **Dino Bianco** will succeed him. Bianco recently served as Executive Vice President and President Beverages and Canada at Kraft Foods. He also served as President of Kraft Canada for nearly 7 years.

**Mercer International** has appointed **Adolf Koppensteiner** as Chief Operating Officer of the company, effective January 1, 2018. Koppensteiner continues to serve as a managing director of the company’s Stendal pulp mill (Arneburg, Germany), a position he has held since June 2013.

**Buckman** has named **Christine Staples** as Global Vice President of their Water Division. Most recently, Staples held the position of Global General Manager in Nalco Champion. Prior to that, she spent over 20 years at Ecolab.

**FPInnovations** appointed **Stephane Renou** as President and CEO, effective December 14. Renou succeeds **Pierre Lapointe**, who has held this position since December 2008, and had announced his intention to step down as President earlier in 2017.

**Kemira** has appointed **Matthew R. Pixton** (Ph.D. Chemical Engineering) as Chief Technology Officer and a member of the Management Board. He was previously heading Kemira’s R&D and Technology, Americas organization.

**Montalvo** has promoted **Bryon Williams** to Director of Sales and Marketing. Previously, Williams worked as Montalvo’s Global Marketing Manager.

**Motion Industries** recently announced three management changes that became effective in December: **Randy Breaux** was promoted to Executive Vice President of Marketing, Distribution, and Purchasing; **Kevin Storer** was promoted to Executive Vice President of U.S. Operations and President of Mi Mexico; and **Mark Stoneburner** was promoted to Senior Vice President of Industry Segments and Business Development.
Tuesday, March 13, 12:00pm – 2:15pm (suites closed)

Paper2018 Luncheon

Billy McLaughlin, world-class guitarist and composer, was at the top of his game with a multi-album deal with Virgin Records and a Billboard top 10 hit when a mysterious muscle disorder completely sidelined his career. His inspirational story and his return to music offer important takeaways for addressing disruptive forces in leadership and life.

NPTA will present the Stanley O. Styles Industry Excellence Award to Tom O’Connor, Jr. of Mohawk Fine Papers.

Sponsored by INTERNATIONAL PAPER

Separately ticketed event! All luncheon attendees must hold a Paper2018 Event Access Pass in addition to their ticket. Register at Paper2018.com/registration.
On January 5th, we learned from trade publisher RISI that the average price of recyclable old corrugated containers (OCC) across the USA remained flat at $105/ton in the first three days of the year. No US region experienced any price changes from levels reported in early December. As a result, OCC in the export-heavy regions of Los Angeles and San Francisco held steady at $120/ton and $110/ton, respectively, while pricing in the key Southeast region remained at $115/ton.

According to the RISI commentary, Chinese purchases were very light since the first batch of import permits (2.27 million metric tons) were issued by China’s Ministry of Environmental Protection in the days after Christmas (or just the week before this report). We also learned that additional licenses were granted the following week – just after New Year’s Day – with import license quotas so far reaching 2.61 million tonnes. These permits should suffice for over half of the country’s needs in the first quarter of 2018. Despite the official approval of import permits, buying of US-sourced OCC was light – perhaps due to the holiday season. Export OCC prices to China at the ports of New York and Los Angeles were in fact down $5/ton each.

**Chinese Buying Slow, but Uptick Expected**

We note that there are perhaps other factors that could have caused the recent tepid pace of Chinese buying. First, there already appeared to be cargos with purchases from October-November (when US OCC pricing halted its rapid decline) that are scheduled to arrive this month. Second, these “early” buyers in China were arguably taking a risk, though things have gone their way with the newly-issued license quotas. Thus, the early 2018 shortage may not be as severe as initially expected. Thirdly, the new “official” contamination level of 0.5% may have kept buyers sidelined, given the difficulty (if not impossibility) in finding such material in the US. That being said, OCC prices reported by RISI reflect activity taking place between January 2nd and January 4th. It appears that several OCC suppliers are already seeing a pick-up in export pricing by more than $15/ton vs Jan. 5th reported level. Going forward, we believe that buying should accelerate.

**Contamination Level Limit Lurks**

It is pretty clear to us that a blanket, sustained reduction
in OCC imports is not in the cards; such a thing would be unfathomable given the damage it would cause to China’s economy (and possibly to its food distribution system). Even though import licenses will be issued later than usual – and the quota levels are still unknown – the most hotly contested rule at the moment is the 0.5% contamination limit for OCC imports after March 1st; we note that after setting a totally unrealistic level of 0.3% a few months ago, China reversed course recently, although the current level (0.5%) is significantly below the 1% level initially communicated. Industry sources have said that it is virtually impossible to collect and “clean” OCC with such a low contamination level. Chinese firms will likely have to import more expensive containerboard feedstock alternatives, such as double-sorted OCC (DS-OCC) and double-lined kraft corrugated cuttings (DLK). The former is simply a more thoroughly inspected form of OCC. The latter represents the trim waste generated by box plants in the US from the likes of International Paper and other box converters.

We believe such grades cannot suffice to cover China’s substantial OCC demand. We expect US recycling/waste management firms to devote more time (and money) into cleaning OCC – thus increasing the supply of DS-OCC; yet Chinese mills will likely incur the financial burden of this development. If demand is very strong and the spread between DLK and OCC widens considerably, we expect US companies to increase their prices. We highlight that with China’s complete ban on mixed paper, its OCC deficit is even larger than it appears, as we believe that roughly one-third of mixed paper is OCC (not to mention that much of the remaining lower grade fibers are usually utilized by mills as furnish). We thus remain of the opinion that the country will have to eventually relax its proposed regulations even further.

Pricing Outlook

Having concluded 2017 – with the average OCC price across all US regions reaching $138/ton vs $92/ton in 2016 – we are refining our expectations for next year. We still expect US OCC prices to average $160/ton in 2018 (our initial forecast was introduced in October); however, we now believe that the price path will be somewhat smoother, as Chinese mills did get a change to import OCC in the past couple of months and the 0.5% contamination level rule going into effect in March will likely restrain purchases for a while starting in mid-February. We still expect an upward price trajectory, with a price peak of $185/ton in May-June – at a time when we should have more clarity regarding the contamination level rule.

The US containerboard producers likely will see their “windfall” of super-low OCC costs in the fourth quarter of 2017 give way to some margin squeeze in the first half of 2018 – a period which is challenging anyway given winter weather and normal maintenance downtime that typically occurs late in the quarter. In what we expect to be substantially-higher recyclable fiber costs by sometime in the second quarter, we would not be surprised to see most/all major producers announce a US containerboard price increase sometime around late-February or early-March for an April 1st implementation. Box prices typically move up about 2-3 months after board prices move up. Remember – we believe the goal of most US companies is to maintain or slightly increase margins, not simply to seek to jack up prices indiscriminately.

Chip Dillon is a Partner at Vertical Research Partners (www.verticalresearchpartners.com) covering the Global Paper and Packaging Industry. He is a Chartered Financial Analyst (CFA) and consistently ranks highly in the major polls/surveys of U.S. Packaging & Forest Products analysts, including a #1 ranking on eight occasions in the Institutional Investor (II) poll.
The pulp, paper, packaging, tissue and wood products industry is one of the largest manufacturing sectors in the nation — eager to contribute to American economic growth and job creation and steadily implementing sustainability practices to ensure a long future for our manufacturers and the resources they use.

Before we look at the year ahead, a word of thanks to all who contributed to 2017’s public policy achievements. Success takes teamwork, the type displayed throughout the year. Member company and association representatives and AF&PA staff consistently put our industry’s compelling story before the Administration, Capitol Hill, Washington decision makers and state legislators during fly-ins, state advocacy days, public events, face-to-face meetings, hearings, phone calls and in formal testimony.

At every turn, we made a case for key reforms to improve our industry’s ability to invest, innovate and effectively plan for the future. Our efforts produced measurable results with Congress enacting long-overdue tax and regulatory reforms and clarifying federal policy to recognize the carbon-reducing benefits of biomass-based renewable energy.

Comprehensive tax reform is a win for America and our industry. More than three decades after last major overhaul, the president signed the Tax Cuts and Jobs Act into law. A permanent reduction in the federal corporate tax rate to 21 percent, creation of a new international territorial tax system, repeal of the corporate alternative minimum tax and incentives for investment in U.S. manufacturing have modernized a broken system and will support company growth and job creation.

Clear federal policy recognizing the carbon-reducing benefits of biomass-based renewable energy production lifted a seven-year cloud of Environmental Protection Agency uncertainty on the issue. Our manufacturers compete globally against companies from countries that recognize biomass carbon neutrality and deserve a level playing field. Now they have that opportunity.

When it comes to advancing sustainability performance, our member companies continue to lead. In February of 2017, they announced a greenhouse gas reduction goal of 20 percent by the year 2020 under Better Practices, Better Planet 2020 sustainability initiative.

In February of 2017, AF&PA member companies announced a greenhouse gas reduction goal of 20 percent by the year 2020 under Better Practices, Better Planet 2020 sustainability initiative.

2018 Priorities

The 2018 horizon is wide open, and among our policy priorities are: Deeper regulatory reform, free and fair trade policy, efficient freight rail and transportation measures, safeguards for the rights of citizens to choose paper-based communications about essential government services and
postal service reforms to ensure mail is the preferred and competitive option in the marketplace.

**Regulatory Reform**

The cost, complexity and volume of regulations disproportionately affects manufacturers, and we commend the Administration for its continued focus on streamlining or eliminating unwarranted regulations and modernizing the permit process. We also look forward to supporting efforts to improve the regulatory process that will promote the competitiveness of U.S. manufacturing and job creation and enhance societal well-being.

**Free and Fair Trade**

Free and fair trade policies that recognize our strong global position remain essential. As policymakers weigh potential changes to the North American Free Trade Agreement (NAFTA), we will work to ensure Canadian and Mexican markets remain open to our industry’s exports and recognize the benefits of our interconnected supply chain. Our priorities for NAFTA include maintaining open access for U.S. exports, a level playing field for U.S. companies, transparent and sound science-based regulatory practices, commitment to combat illegal logging and associated trade and retaining investor-state dispute settlement protections.

**Transportation/Freight**

On the transportation front, access to globally-competitive freight delivery is essential. Safely increasing truck weight limits on federal interstate highways and freight rail system rate and service improvements are necessary and have our continued support.

**Paper Product Policies**

We continue to expect a steady pace of state and local legislative and regulatory activity this year on paper and packaging recovery, fees and bans. California will likely remain the leading voice, as it has identified three types of paper-based packaging to target for regulatory measures: uncoated corrugated, waxed corrugated, and paperboard and aseptic liquid packaging. AF&PA is working with other allies to oppose regulatory action in California.

**Postal Service Reform**

If mail is to compete with ever-increasing options to reach consumers, rate stability and customer service must be front and center. We support legislative measures that help the United States Postal Service achieve long-term viability by realigning its outdated cost structure, encouraging new revenue sources, and leveraging a unique infrastructure to meet the service needs of future customers. We will continue to follow Congressional action on the House Postal Reform Act and work with the Postal Regulatory Commission to ensure that mail is a preferred and competitive option in the marketplace.

The list is ambitious, but jobs, paychecks, higher standards of living and our ability to compete at home and around the globe are on the line. Our 900,000 employees in rural and urban communities across 45 states understand this dynamic, and so do we. We welcome the challenge of working together to build an even stronger foundation for them to do what they do best — produce the essential paper and wood products that make everyday life better.

As policymakers weigh potential changes to the North American Free Trade Agreement (NAFTA), AF&PA will work to ensure Canadian and Mexican markets remain open to our industry’s exports and recognize the benefits of our interconnected supply chain.
Sappi is an expansive company. It produces dissolving wood pulp, paper pulp, printing papers, packaging and specialty papers, casting and release papers, along with biomaterials and bio-energy. With nearly 12,000 employees in over 20 countries and manufacturing operations on three continents — seven mills in Western Europe, three mills in the United States and four mills in South Africa, Sappi has the capacity to produce about: 5.4 million tons per year (tpy) of paper; 2.3 million tpy of paper pulp; and 1.3 million tons per year of dissolving wood pulp. The company’s products are sold and distributed across more than 150 countries.

However, the South African based pulp and paper producer got its start with the construction of a single pulp and paper mill immediately following the establishment of South African Pulp and Paper Industries Limited on December 17, 1936. The company name soon thereafter was abbreviated to ‘SA Pulp’, but would eventually become Sappi – as it is known today.

Construction of that first pulp and paper mill — Enstra Mill — began on land near Springs, a suburb near Johannesburg, South Africa. The mill, which had an original design capacity of 14,000 tpy, began producing paper in 1938, first using a straw-based pulp as furnish. Interestingly, not only was straw used as the mill’s primary fiber furnish, it was also behind the mill’s name: ENTERPRISE STRAW.

In 1948, the Enstra Mill eliminated straw as its raw material and the mill was adapted for pulping wood (pine). Years later (end of 1960s), it was the Enstra Mill where Sappi developed its pioneering Sapoxal oxygen bleaching process. The mill was also the first to produce elemental chlorine-free pulp (ECF) using this process.

Over the next thirty or so years, Sappi grew through the addition of mills, paper machines and mill expansion projects. During the late 1940s and into the 1950s, the company also began to establish tree plantations giving way for its paper machines to produce paper from wood instead of straw.

From a single pulp and paper mill producing paper from straw in 1938, Sappi has evolved into a global provider of dissolving wood pulp, packaging and specialty papers, and graphic papers, as well as biomaterials and biochemicals.

By John O’Brien, Managing Editor
In 1973, South African Pulp and Paper Industries Limited re-registered as Sappi Limited. During this period of time, Sappi would experience greenfield developments, acquisitions, significant production capacity expansion at a number of its mills, and the introduction of ozone bleaching at Ngodwana Mill (South Africa), which first began operation in 1966 producing kraft pulp.

**SAICCOR**

What might be one of the most prominent deals in Sappi’s history took place in September of 1988, when it acquired Saiccor (South African Industrial Cellulose Corporation) from Courtaulds, a UK-based textile and chemical company; and South Africa’s Industrial Development Corporation. Not only was the pulp mill immediately profitable due to Sappi’s knowledge of the pulp production process, it also paved the way for Sappi to enter the dissolving pulp (DWP) market.

Saiccor Mill, located in Umkomaas, South Africa, was producing just over 1,000 tons per day of pulp when Sappi took ownership. At that time, a local newspaper, the South African Industrial Mirror, said of the deal, “This latest expansion can be seen as the most important milestone in Sappi’s history and transforms the company into one of the two mega powers in the South African industrial arena.”

**COATED FINE PAPER**

Through the 1990s, Sappi’s focus moved to coated fine paper, acquiring five fine paper mills in the UK, Hannover Papier in Germany, gained a controlling stake in S.D. Warren (the largest producer of coated fine paper in the U.S., and acquired KNP Leykam, Europe’s largest producer of coated fine paper. Sappi Europe was also established.

Entering 2000, Sappi continued its expansion of coated fine paper capacity with the 2002 acquisition of Potlatch’s coated fine paper business along with its Cloquet pulp and paper mill in Minnesota. In Europe, Sappi bought M-Real’s coated graphic paper business in 2008.

However, Sappi had to counter its acquired coated paper capacity with closures of a number of older, less profitable mills from 2000 - 2012 as a result of the structural decline in demand for coated fine paper worldwide.

**DISSOLVING WOOD PULP**

Sappi Specialised Cellulose, a division of Sappi, is the world’s largest manufacturer and seller of dissolving wood pulp (DWP). Its production of DWP is split between its two South African mills, Saiccor and Ngodwana and the Cloquet Mill in Minnesota. Combined, these three mills can produce more than 1.3 million tons of DWP per year, accounting for 17% of global demand.

**Ngodwana Mill** started producing DWP for global markets in 2013. Its current capacity is 210,000 tpy of prehydrolysed kraft DWP produced from 100% eucalyptus hardwood, sustainably sourced from suppliers near the mill in the province of Mpumalanga. A fully integrated kraft mill, in addition to DWP the mill produces paper grade pulp for its own consumption, newsprint and containerboard.

**Cloquet Mill** started delivering DWP to the market in 2013 following the conversion of its kraft pulp facility – over a century after the original mill opened on the banks of the St Louis River in Minnesota in 1898. It now has the capability to produce 330,000 tons of kraft DWP per year, sourced from mixed northern hardwoods – mainly aspen and maple. The Cloquet mill also specializes in coated free sheet graphic paper and bleached chemical pulp.

**A BUSY 2017**

In 2017, Sappi was busy laying out the groundwork for its future. In February, the company announced an investment of $165 million to rebuild Paper Machine No. 1 at the Somerset Mill in Skowhegan, Maine. The project’s purpose is
to increase PM No. 1’s production capacity by 180,000 metric tons per year while enabling the machine the flexibility to produce a variety of consumer packaging grades.

Mark Gardner, President and CEO of Sappi North America, commented, “Somerset’s existing world class infrastructure together with its talented workforce and access to high quality fiber makes the mill an excellent and obvious choice for this investment. Increasing our flexibility and expanding the paper mill’s capability and capacity will ensure that we continue to make superior products at Somerset for years to come.”

The planned project is slated to come online early in 2018.

Packaging and Specialty Papers
At about the same time as the Somerset Mill investment, Sappi announced a range of projects in Europe to take place between 2017 - 2019 that included: expanding lightweight packaging and specialty paper capacity at Alfeld Mill in Germany; conversion of Maastricht Mill in The Netherlands to produce high quality solid bleached board; and a transition of production on PM8 at Lanaken Mill in Belgium over three years to support coated woodfree business.

Specifically, Sappi Europe plans to grow its packaging and specialty papers business by converting its Maastricht Mill to a high quality solid bleached board facility and by expanding the lightweight packaging and specialty papers capacity of its Alfeld Mill by 10,000 tpy. Sappi said it expects the SBB coated graphic papers capacity by about 200,000 tons.”

During the fall of 2017, Sappi completed a $5.94 million capital investment at the Cloquet Mill, replacing the headbox on Paper Machine 12. The project enabled the mill to maintain its capacity by adding a state-of-the-art, dilution profiled headbox. Just four years earlier, Sappi invested $170 million to enable the Cloquet Mill’s kraft pulp operations to also produce kraft DWP.

Gratkorn Mill produces 980,000 tonnes of high-quality double and triple coated papers annually and 250,000 tonnes of totally chlorine free (TCF) chemical pulp for its own consumption. It has an annual sheet finishing capacity of 875,000 tonnes. About 95% of the mill’s production is exported.
With 2017 nearing its close, Sappi in early December announced it had signed an agreement to acquire the specialty paper business of Cham Paper Group Holding AG (CPG) for CHF146.5 million (approximately $149 million). The deal includes the acquisition of CPG’s Carmignano and Condino Mills in Italy, its digital imaging business located in Cham, Switzerland, as well as all brands and know-how. Sappi expects the deal, which is subject to the approval of certain competition authorities, to be completed during the first calendar quarter of 2018.

Steve Binnie, CEO of Sappi Limited, commented, “This acquisition further strengthens Sappi’s specialty paper business both in Europe and globally by combining Cham’s strong brands and assets with Sappi’s global reach. This transaction will increase profitability and unlock the significant growth and innovation potential inherent within the specialty paper market.”

**Increasing Production of DWP**

Sappi continued to make news in mid-December when it announced plans to significantly increase its capacity for the production of dissolving wood pulp by 2020. More specifically, Sappi has started preparatory work for the potential expansion of Saiccor Mill to ensure that the company would be in a position to increase the mill’s capacity by up to 250,000 tpy to meet “strong projected demand growth.”

In order to accomplish the boost in DWP production, debottlenecking projects will increase Saiccor’s capacity by 10,000 tpy by the end of 2018. In addition, work has also started on increasing the mill’s chipping capacity and modernizing its wood yard, with new equipment scheduled to be delivered and installed at the end of 2018. Start-up planned for January 2019. According to Sappi, the wood yard optimization will result in cost, quality, environmental and efficiency benefits to Saiccor and is a key element towards preparing the mill to expand production by a further 250,000 tpy.

Currently, Sappi is engaged in prep work to enable it to initiate the pre-requisite EIA (environmental impact assessment) process to study potential impacts, gather community input and model new technology benefits of Saiccor’s proposed capacity expansion, which would increase the Saiccor Mill’s total DWP capacity to over 1 million tpy.

Also on the DWP front, Sappi is in the process of expanding the capacity of its Ngodwana Mill by 50,000 tpy through debottlenecking projects. This work is scheduled for completion by August 2018.

Last but certainly not least, Sappi is completing a study regarding the expansion of pulping capacity at the Cloquet Mill that would fall within the mill’s existing permit limits, maintaining its ability to make either DWP or Kraft pulp. Sappi foresees such an expansion would have the capacity to increase DWP production by around 30,000 tpy and could be brought on line by mid-2019.

Beyond pulp and paper, Sappi is developing new bioproducts and markets from wood chemistry, involving nanocellulose, lignin, and hemicellulose sugars.

Sappi has come a long way from making paper from straw at a lone pulp and paper mill in South Africa some 82 years ago. That mill faced many challenges but managed to overcome them through hard work, perseverance and foresight – attributes Sappi still carries with it today.
Sustainable Practices

Buckman’s new CEO, Junai Maharaj, says his company is working toward a more innovative and sustainable future and is committed to helping the pulp and paper industry do the same by focusing on greener chemistries and smart technologies.

By John O’Brien, Managing Editor

On April 28, 2017, Junai Maharaj became Buckman’s first non-family Chief Executive Officer. Maharaj succeeded Steven B. Buckman and is only the fourth CEO the company has had since Dr. Stanley J. Buckman, a biochemist, established Buckman Laboratories in 1945.

Today, Buckman is a privately-held, global specialty chemical company serving customers all over the world in pulp and paper, leather and industrial water treatment and process chemistry. Buckman’s global headquarters is in Memphis, Tennessee, situated on the same spot as the original building, which opened in 1945, on the corner of North McLean Blvd. and Chelsea Ave.

PaperAge recently caught up with Junai Maharaj to learn a bit about Buckman’s new CEO and more so about the company’s focus on sustainable chemistry and technologies for the pulp and paper industry.

What first brought you to Buckman?

My journey with Buckman actually began in 1996 when Buckman was making headlines for best practices on knowledge sharing under the leadership of the then-CEO, Bob Buckman. I was fascinated by how a chemical company was solving customer problems using a global platform called K’netix®. It was incredible. Here was a chemical company that was actually selling knowledge but monetizing it through the sale of chemicals and services.
I was assigned to the Buckman account when I was working for an audit, tax and business consulting company in South Africa in 1996, and it did not take me long to learn that Buckman was hyper-focused on its customers, innovation and was fiercely committed to the development of its people. I could easily see myself growing in a company like Buckman. It seemed that the feeling was mutual. I accepted the Finance Manager role at Buckman Africa in 2002 and from there moved into the role of General Manager of Operations in 2006, before becoming General Manager of South Africa in 2012.

You previously served as General Manager of Buckman South Africa and Managing Director of Buckman Europe, Middle East and North Africa (EMENA). What can you tell us about your new role as CEO?

I am extremely honored to serve as Buckman’s fourth CEO and as the company’s first non-family CEO. While Buckman is a privately-owned company, the Buckman family has invested in the development of its people to ensure that the company continues to innovate and meet the growing and new expectations of customers. I am an example of the commitment our shareholders have for its people.

There was no doubt that I had some big shoes to fill when Steve Buckman retired after being CEO for 17 years. I knew there were some things I wouldn’t change like our focus on the customer, safety, associate development and our commitment to the community. But I also had some ideas of my own. I wanted to ensure that we leverage our core and distinctive competencies to further enhance the customer experience. I wanted to do this by delivering innovative products and smart chemical solutions to our customers that provide them with meaningful and measurable benefits.

We are focusing on developing smart application technologies that, when combined with our proven range of products and the expertise of our associates, offer solutions to our customers that will improve their bottom line. In addition, our culture, global footprint and our size gives us the agility and ability to quickly adopt and implement changes that benefit our customers and our associates.

The pulp and paper industry is Buckman’s largest market. From a supplier’s standpoint, how is chemistry changing for the industry? Are there prominent trends?

We see two main trends in the pulp and paper industry.

First, our customers are trying to create more sustainable processes in their operations, which means they require chemistries that allow them to do more with less and more safely. Buckman’s product offering is constantly evolving to meet our customers’ needs in this area.

The other significant trend is the customer’s desire to monitor their chemical applications to improve process control and minimize costs. Chemistry is only part of the solution we deliver. Buckman meets customer demands by giving them more insight and control over how our products interact with their process. Buckman’s recent acquisition of smart technology, which I’ll discuss in more detail later, is a significant step in our ability to offer a smart solution — combining chemistry, technology and expertise — for our customers.

Buckman offers a relatively new green enzymatic technology developed to reduce the use of traditional chlorine-based pulp bleaching chemistries. What are the benefits of this technology?

We are proud to offer a greener chemistry called Vybrant®, which reduces the use of traditional chlorine-based pulp bleaching chemistries. It’s one of our enzymatic bleaching technologies that works in pre- and post-bleaching processes. One of the great things about Vybrant’s pre-bleaching technologies is that it makes Kraft fibers more receptive to bleach, reducing ClO2 usage by as much as 20% and reducing the usage of water and other brightening chemistries.

In the post-bleaching process, Vybrant’s technologies use specially selected enzymes to remove brightness-limiting
chromophores in bleached pulp which can help mills achieve a higher brightness with less bleach and reduce the usage of optical brighteners.

**What is Buckman doing to help pulp and paper producers improve the sustainability of their processes and operations?**

Buckman has always found it important to work toward a more sustainable future, and we’re committed to helping the pulp and paper industries do the same. Therefore, we are focused on developing greener chemistries and connecting them with our smart technologies to help customers get more accurate data and better process control while reducing their environmental footprint. For example, Buckman’s Maximyze® enzymatic technologies are engineered to treat specific fiber types, opening up fibers for optimal performance and thus reducing the energy needed to achieve the required strength. These products also allow the use of more recycled fiber while reducing steam consumption.

We also have an advanced enzymatic technology for boilout programs. With Buzyme®, we accelerate deposit removal in paper machine systems while also addressing the safety and environmental concerns with traditional alkaline boilouts that require additional safeguards to protect employees and effluent systems.

The Buckman Recovery Boiler Advisor (RBA) is an example of a digital solution used by paper mill personnel operating a Recovery Boiler. The RBA uses existing data contained in the mill’s DCS system to alert mill personnel of a water leak in the recovery boiler allowing them to take quick action to prevent explosion.

When these chemistries are paired with a smart product like our remote monitoring system, Buckman OnSite®, customers can detect and prevent problems before they occur.

Through our meticulous measurements, we found that we made great progress since setting our initial reduction goals for emissions, waste, energy and water consumption in 2010. Over the course of five years, we met and even exceeded some goals, and we made significant strides toward reaching the others.

Those goals expired in 2015 so we’ve set new reduction targets of 10% in those areas of emissions, waste, energy and water consumption. We are happy to say that we have already met our 2020 goal for water discharge intensity.

The reporting process also allows us to identify areas where we need to improve. Through this process, we know that we need to improve our data to enable us to report more completely in the areas of gender, new hire retention rates, age group and minority group. We plan to address these issues in our 2018 sustainability report.

**Internally, what measures has Buckman taken to operate in a sustainable manner?**

At Buckman, we believe becoming more sustainable is an ongoing journey. We recently released our fourth sustainability report which adheres to the stringent guidelines of the Global Reporting Initiative (GRI). Reporting through the GRI gives us the structure by which to look at the things that are important to our stakeholders and engage with them on a regular basis.

Buckman acquired CiDRA Chemical Management Inc. (CCMI) at the end of September 2017. How is CCMI being integrated into Buckman’s business structure?

In September, we made Buckman history with the largest acquisition since our company’s founding in 1945. The acquisition of CCMI greatly expanded our smart technology solutions. We recently rebranded the technology offering from this acquisition as ECHOWISE™, whose name was carefully chosen to reflect the process control that ECHOWISE brings to a customer’s operations.

The acquisition of CCMI is very much in line with our vision for Buckman’s future by helping us grow our portfolio and competency in smart technology. Right now, we are focusing most of our ECHOWISE efforts on the pulp and paper and bioprocessing markets in North America. As far as our next steps, we are conducting research and working on a deliberate plan to expand ECHOWISE into our other operating...
companies as early as the end of the first quarter of 2018.

This acquisition has obviously been the highlight of 2017. We’re excited to demonstrate what a customer can accomplish when they leverage smart technology with our proven chemical applications, advanced monitoring systems and dedicated, experienced people.

**CCMI’s intellectual property includes patents for measuring entrained air in the pulp and paper industry. What can this technology do for a pulp and/or paper mill?**

As I mentioned earlier, we are focused on developing industry-leading chemistries that can be used seamlessly with our problem-solving expertise and smart technology, like ECHOWISE and Buckman OnSite. With the addition of our entrained air technology (ECHOWISE), we are able to provide a smart solution that gives customers advanced process control and accurate, reliable and unique data that in many cases was previously unavailable.

Specifically, for a pulp mill, ECHOWISE, along with the Buckman defoamer program, gives a customer a continuous stream of information in real time so they can optimize pulp cleanliness and washing efficiency in real time. Other benefits mills will see include reduced bleach costs, reduced chemical costs on the paper machine, increased production rate and increased O2 delignification efficiency.

For the paper mills, ECHOWISE will bring a new level of efficiency to mill operations by reducing variability at the wet end and in the forming section, along with improving drainage and decreasing steam consumption.

We think ECHOWISE is a gamechanger. Not only is it non-intrusive, provides real-time continuous data and requires no downtime to install, but most importantly, the reliable data it provides enables manufacturers to reduce the amount of variability in their manufacturing process.

**Buckman offers a remote process monitoring system, Buckman OnSite®. Tell us a bit about this system.**

Buckman OnSite was one of Buckman’s first smart products. It makes sure vital process information flows to everyone who needs it 24 hours a day, seven days a week.

Remote Monitoring. Buckman OnSite makes sure vital process information flows to everyone who needs it 24 hours a day, seven days a week.
FPInnovations and Resolute Forest Products in January announced a significant investment in the implementation of a TMP (thermal mechanical pulping) -Bio pilot project in Thunder Bay, Ontario. The pilot project will focus on developing new ways to efficiently produce and commercialize innovative bio-chemicals derived from wood, contributing to the development of a bio-economy in Northern Ontario, as well as elsewhere in Canada.

The $21 million project is part of an initiative to renew and transform the forest products industry, building on investments made in 2012 by Resolute, the Ontario Centre for Research and Innovation in the Bio-Economy (CRIBE), and Natural Resources Canada. This investment covers cost of capital and R&D and has the support of the Northern Ontario Heritage Fund Corporation (NOHFC), CRIBE, FedNor, the City of Thunder Bay CEDC and Natural Resources Canada.

Resolute is contributing $3.5 million and hosting the pilot project at its Thunder Bay pulp and paper mill. TMP-Bio is a patented technology developed by FPInnovations with financial support from Natural Resources Canada’s Transformative Technologies Program.

“We are pleased to continue our strategic partnership with FPInnovations by providing both a host facility and financial support to this innovative venture,” said Richard Garneau, President and CEO of Resolute Forest Products. “This project will help create opportunities to diversify the use of wood fibre into higher-value-added products.”

FPInnovations noted that the project comes at a very opportune time as market interest for sustainably sourced green bio-chemicals and bio-fuels continues to build. The development and availability in significant quantities of bio-sourced chemicals, such as the cellulosic sugars and high-quality H-lignin produced by the TMP-Bio process, is a key step in growing new market value for the forest products sector by connecting it to the bio-chemical supply chain.

“FPInnovations’ President and CEO, Stephane Renou, said, “This project highlights the importance of investing in de-risking new technologies and products, and points the way for developing and delivering a transformative technology that contributes to the Canadian bio-economy. This major initiative strengthens the industry’s position as a leader in the bio-refinery sector.”

**About FPInnovations**

FPInnovations is a not-for-profit research organization that specializes in the creation of innovative scientific solutions in support of the Canadian forest sector’s global competitiveness and responds to the priority needs of its industry members and government partners.

**About Resolute Forest Products**

Resolute Forest Products is a global leader in the forest products industry with a diverse range of products, including market pulp, tissue, wood products, newsprint and specialty papers, which are marketed in over 70 countries.
Hydro-Flo™ LP Deckle Systems

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Domtar’s Kingsport Mill Reaches Million-Hour Safety Mark, Receives Governor’s Award of Excellence

Tennessee state officials recently presented Domtar’s Kingsport mill with a top safety award, the Tennessee Occupational Safety and Health Administration (TOSHA) Governor’s Award of Excellence for Workplace Safety.

The award recognizes outstanding achievement in employer-employee safety programs for the prevention of workplace injury. As part of its qualification criteria, Domtar’s Kingsport mill had to accumulate 1 million hours worked without a lost-time or restricted-duty incident.

“Safety is a core value at Domtar, and we’re proud that TOSHA has recognized our efforts in this way,” says Bill MacPherson, mill manager. “We’re grateful to say that while this is the first time our Kingsport mill has been publicly recognized, thanks to our employees, the 1 million-hour milestone has been reached multiple times in the past by both the Kingsport mill and by our Ridgefields Converting facility.”

Guests and speakers at the event included James Flanagan, assistant administrator for Tennessee OSHA, David Blessman, Volunteer STAR Recognition Program manager, and Randy Cassell, president of Kingsport’s Safety Council, among others.

“Domtar’s Kingsport mill has demonstrated a strong commitment to maintaining a safe and healthy workplace,” says Flanagan, who presented the Governor’s Award of Excellence. “The evaluation criteria for this award are challenging, and this company has worked extremely hard to meet and exceed the standards the award requires.”

Domtar ranks as Kingsport’s third-largest manufacturing company, with approximately 400 employees at its mill and Ridgefields Converting facility.

“We’re very thankful for the dedication of our employees,” MacPherson says. “Milestones like these are possible because of their ongoing commitment to safety awareness.”

Domtar’s Kingsport mill has an annual paper production capacity of 426,000 short tons of uncoated freesheet (one paper machine) and 304,000 tonnes (ADMT) of pulp.
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