Sappi North America, Inc. (SNA) has publicly reported its progress on sustainability initiatives since 2008 as part of Sappi Limited’s annual global sustainability report. This is the 11th consecutive year that SNA has issued its own sustainability report, which supplements the consolidated global sustainability performance included in the annual report to shareholders. Sappi Limited will continue to publish a separate online report in conformance with the Global Reporting Initiative’s G4 framework that discloses compliance with the United Nations Global Compact (UNGC), to which we are a signatory.

Covering fiscal 2021 from September 28, 2020, through September 26, 2021, this year’s report focuses on performance against goals and provides an update on key performance indicators. The baseline for these goals is 2019 unless noted differently. The report includes environmental performance data for SNA’s North American manufacturing operations in Skowhegan, Maine; Westbrook, Maine; Cloquet, Minnesota; and Matane, Quebec. Intensity metrics reflect the impact per metric ton of saleable product, including market pulp. The social responsibility and prosperity goals are reported for the full region, including our four mills, corporate facilities, sales offices, and sheeting facility. Copies of reports produced by Sappi Limited can be accessed at sappi.com/investors. Online access to Sappi’s group sustainability report can be found at sappi.com/sustainability-and-impact.
A letter from Steve Binnie

In a world changed forever by the COVID-19 pandemic, I am proud of how the Sappi family came together last year to forge ahead, prosper, and even flourish.

Nature reminds us that life always moves forward and finds a way to advance and thrive. Sappi not only persevered in the face of COVID-19’s devastating impacts on business and markets, but also returned to profitability, exceeded our expectations, and surpassed financial targets.

Sappi North America led the group in financial and environmental performance. Our colleagues at SNA posted a record year for the packaging segment, which was our biggest profit earner; we responded to a strong demand for dissolving pulp; and our graphics business picked up momentum. Sappi North America achieved its most profitable year in a decade and its most profitable fourth quarter since 1997.

Our growth was driven by our significant investments into packaging and speciality papers, primarily the successful ramp-up of sales volumes from Somerset Mill PM1, as well as the acquisition of the Matane Mill.

We accomplished all this while advancing our commitment to safety and environmental responsibility. Safety is the top priority at Sappi, which is consistent with United Nations Sustainable Development Goals, and we are committed to zero workplace injuries. I am pleased that we experienced no lost-time injuries across all of Sappi North America in the fourth quarter.

Sappi also moved forward in science-based innovation, climate-change mitigation, and transparency in sustainable procurement. We partnered with EcoVadis, a global leader in third-party evaluations of business sustainability performance, to assess the practices of Sappi’s suppliers and encourage their commitment to the Sustainable Development Goals.

Our dedication to sustainability is based on building a biobased, circular economy through products from responsibly managed natural and renewable resources. Customers and the markets continuously challenge us to develop better products using sustainable practices and to produce more with less. We constantly seek science-based innovation through cutting-edge technology and R&D to satisfy our customers, reach new markets, and remain a leader in fast-moving markets.

We made strong progress in North America in all the environmental categories, improving energy efficiency, increasing renewable energy, and reducing our carbon footprint. We reduced the amount of landfilled solid waste from our Somerset Mill, and at the Cloquet Mill we significantly reduced water and steam usage. We made good progress on our Thrive25 sustainability journey and remain fully committed to achieving our targets.

I am very optimistic about the year ahead in all regions and product segments. We are well placed to advance our mission and our purpose: to build a thriving world by unlocking the power of renewable resources to benefit people, communities, and the planet. I thank you for your part in helping Sappi advance, and I am confident you will deliver a safe and prosperous 2022.

Steve Binnie
Chief Executive Officer
Sappi Limited
Our emergence from the pandemic the past year brought new challenges for our employees, communities, and customers. We faced not only global disruptions in logistics and supply chains, but also the need for vigilance in navigating COVID variants to keep our workplaces safe. I am extremely proud of how our employees and industry partners weathered these unforeseen challenges to deliver positive and sustainable business results.

A few years ago, we embarked on a journey to further diversify our business and center our strategic goals in our company purpose: “to build a thriving world by unlocking the power of renewable resources to benefit people, communities, and the planet.” We set ambitious targets for growth and sustainability that are based on being a trusted and innovative partner providing enhanced value to our employees and customers.

Advancing any company around the obstacles of a pandemic takes ingenuity, teamwork, and adaptability. Thanks to our dedicated and hardworking teams, fiscal 2021 resulted in our best financial performance in over a decade. These impressive results represent our initial steps toward our 2025 strategy and sustainability performance goals. Of course, we still have more work to do, and we understand the need to be bolder and act faster to satisfy the needs of our employees, customers, and shareholders.

Our business strategy, operational efficiencies, and critical improvement plans in 2021 drove our strong market performance, while at the same time meeting or exceeding our targets for environmental stewardship.
These achievements are an encouraging start on our journey toward aligning our 2025 strategic goals with the United Nations Sustainable Development Goals (UNSDGs), an important global benchmark for sustainability.

A critical component of building a thriving company is our ability to keep our employees safe. Our safety metrics at the start of 2021 disappointed us, with a first-quarter lost time injury frequency rate (LTIFR) of 0.80. Following this wake-up call, the manufacturing team sharpened its focus on early indicators and continued to reinforce shared accountability for keeping all of our colleagues safe. As a result of these efforts, we ended the year on solid footing, registering no lost-time injuries in the final quarter.

In a market that demands more renewable solutions, we depend on key partnerships within the value chain to ensure sustainable and environmentally responsible procurement. We made significant progress in engaging with supply partners and customers to meet these goals, which will remain a key focus going forward. We can all accomplish more together to improve our collective footprint as we serve these critical customer and societal needs.

Looking forward

Our significant growth and sustainability performance in 2021 built a solid foundation for even more innovative contributions to the circular economy. Reaching our 2025 goals requires partnering at new levels across the value chain and embracing new methods for reducing our footprint. Among these is a partnership with the Science Based Targets initiative (SBTi) to benchmark our environmental progress. In concert with our strategic goals and our OneSappi vision and values, we are confident that our business plans, innovative spirit, and desire for enhanced partnerships will deliver unique value for our employees, customers, communities, and investors.

I invite you to review the details of this sustainability report. Each key initiative supports our company purpose and exemplifies our ambitious business and sustainability goals. Most importantly, this report showcases the many accomplishments of our dedicated employees, who demonstrate a daily commitment to our company purpose and strategy, as well as a desire to build a more sustainable future for our company and the communities in which we live and work.

Mike Haws
President and Chief Executive Officer
Sappi North America
Summary of Sappi Limited

At Sappi Limited, we’re unlocking the power of renewable resources to meet the needs of the planet while seeding prosperity for all. Sappi North America is a subsidiary of Sappi Limited (JSE: SAP)—a global company headquartered in Johannesburg, South Africa. Across the globe, Sappi Limited has more than 12,400 employees with manufacturing operations on three continents: 10 mills in Europe, four mills in North America, and five mills in South Africa. We’re focused on providing dissolving pulp (DP), high-yield pulp, packaging, speciality papers, graphic papers, casting and release papers, biomaterials, and biochemicals to our customer base in more than 150 countries. Each year, we produce approximately 5.5 million metric tons of paper, 2.5 million metric tons of pulp for paper and packaging, and 1.4 million metric tons of DP.
<table>
<thead>
<tr>
<th>Region</th>
<th>Location</th>
<th>Production Facilities</th>
<th>Sales Offices</th>
<th>Distribution Centers</th>
<th>Technology Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sappi North America</td>
<td>Boston, Massachusetts</td>
<td>4</td>
<td>6</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Sappi Europe</td>
<td>Brussels, Belgium</td>
<td>10</td>
<td>15</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Sappi Southern Africa</td>
<td>Johannesburg, South Africa</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Sappi Trading</td>
<td>Kowloon, Hong Kong</td>
<td>1</td>
<td>8</td>
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</tbody>
</table>
Overview of Sappi North America

Sappi North America (SNA) is helping build a thriving, sustainable world through approximately 2,100 valuable employees in the United States and Canada. We have corporate offices in Boston, Massachusetts, and South Portland, Maine, and are a subsidiary of Sappi Limited. Our four North American mills have the capacity to produce 1.33 million metric tons of paper and packaging, and 1.17 million metric tons of kraft, high-yield, and dissolving pulp (DP). The success of our diversified businesses is driven by collaborative customer relationships, world-class assets, and outstanding products and services, all strengthened by solid technical, operational, and market expertise.

**Pulp**

Sappi’s pulp segment predominantly comprises dissolving pulp (DP) and high-yield pulp (HYP). Excess kraft pulp produced at the Somerset Mill is sold externally. Sappi’s global Verve brand is a significant player in the DP market, encompassing almost 17% of the global market share. The majority of our share is consumed in the textile industry, where pulp is converted through the value chain to yarn and ultimately textiles, providing soft, breathable fabrics in addition to a myriad of household, industrial, and pharmaceutical applications, including for tablets, acetates, washing sponges, and nonwovens. Our Matane Mill produces high-yield hardwood pulp, with superior bulk qualities ideal for packaging and graphic papers.

**Graphic papers**

Our brilliant, high-performing range of graphic papers creates impactful brand experiences through direct mail, fashion magazines, catalogs, brochures, art books, and beyond. Sappi offers a broad selection of fine printing papers in a variety of brightness levels, finishes, and weights for sheetfed, web offset, and digital printing processes. Our innovative brands are McCoy®, Spectro®, Opus®, Somerset®, Flo®, Galerie, and EuroArt Plus.
Packaging papers

Sappi packaging papers provide sustainable solutions as alternatives to fossil-fuel-based, nonrenewable materials. Our paperboard brands—Spectro®, Proto®, and Proto Litho®—are suited for use in packaging applications that require functionality and superior graphics across a range of market segments, including health and beauty, confectionery, premium beverages, and food packaging. We also offer a product designed for use in a wide variety of bag applications, such as those for pet food, popcorn, coffee, and bakery products.

Speciality papers

Our speciality papers include labels, liners, and casting and release papers. Sappi is the world’s leading supplier of casting and release papers for the fashion, decorative laminate, automotive, and engineered films industries. Our release papers, including the globally recognized Ultracast® brand, provide the surface aesthetics for synthetic fabrics used in footwear, clothing, upholstery, and accessories, as well as the textures for decorative laminates found in kitchens, baths, worktops, flooring, and other decorative surfaces. Our LusterCote® brand is used for labeling cans, jars, and corrugated boxes, as well as other converting applications, such as point-of-purchase displays, envelopes, and much more.
World-class assets

Cloquet Mill
Cloquet, Minnesota

**Established**
Pulp mill: built 1915, replaced 1999, conversion to include dissolving pulp 2013, expansion 2019
PM4: built 1931, rebuilt 1993
PM12: built 1989, rebuilt 2013

**Annual Production Capacity**
340,000 mt/yr of coated freesheet

**Pulp Capacity**
370,000 mt/yr of dissolving pulp or 470,000 mt/yr bleached kraft pulp

**Products**
McCoy, Opus, Flo, LusterCote, and Verve
End uses: annual reports, advertising brochures, fine art books, direct mail, labels, point-of-purchase displays, and textiles

**Equipment**
Pulp mill: 10 batch digesters
Paper mill: 2 paper machines, 1 off-machine coater, 2 off-machine calender stacks

**Employees**
Approximately 721

**Water Source**
Lake Superior, St. Louis River

Matane Mill
Quebec, Canada

**Established**
Pulp mill: built 1990

**Annual Production Capacity**
270,000 mt/yr

**Products**
High-yield bleached chemi-thermo mechanical pulp (BCTMP): aspen and maple
Pulp end uses: graphic papers, paperboard, linerboard, and speciality papers

**Equipment**
2 production lines

**Employees**
Approximately 151

**Water Source**
Matane River
Somerset Mill
Skowhegan, Maine

ESTABLISHED
Pulp mill: built 1976, expansion 1995, recovery cycle upgrade 2010
PM1: built 1982, rebuilt 2007 and 2018
PM2: built 1986, rebuilt 2002
PM3: built 1990, rebuilt 2003 and 2012
Wood room: rebuilt 2018

ANNUAL PRODUCTION CAPACITY
970,000 mt/yr of coated freesheet and packaging paper

BLEACHED KRAFT PULP
525,000 mt/yr

PRODUCTS
Opus, Somerset, Flo Web, Spectro, Proto, Proto Litho, and LusterCote
End uses: direct mail, magazines, catalogs, brochures, art books, luxury packaging, folding cartons, grease-resistant bags, labels

EQUIPMENT
Pulp mill: continuous digester
Paper mill: 3 paper machines

EMPLOYEES
Approximately 754

WATER SOURCE
Kennebec River

SHEETING FACILITY
Allentown, Pennsylvania

Westbrook Mill
Westbrook, Maine

ESTABLISHED
Paper mill: built 1730
PM9: built 1905, retired September 2020

ANNUAL PRODUCTION CAPACITY
23,000 mt/yr of coated speciality paper, casting and release paper

PRODUCTS
Casting and release papers, including Ultracast, Classics, and PolyEx
End uses: casting surfaces for coated textiles and laminates

EQUIPMENT
4 off-machine coaters, 5 off-line embossers, 5 finish winders

EMPLOYEES
Approximately 200

WATER SOURCE
Portland Water District (public)
Sappi’s global innovation network

Sappi’s global research and development network features seven technology centers functioning as OneSappi and partnering to bring value-added renewable solutions to market. At Sappi we believe a key to profitable, sustainable development is customer-focused innovation.

In North America, we have a technology center in Westbrook, Maine, that focuses on developments to advance our diverse businesses of graphic papers, packaging, and specialties. Core competencies in coating and calendering technology, barrier chemistries for packaging, and release chemistries for our texturing business are employed to enhance customer value. Our scientists in this facility are supported by two high-speed coaters aiding in rapid prototyping for our customers.

As a renewable resource company, we believe our strong competency in tree biotechnology and forestry is vital. The Sappi Shaw Research Centre in Tweedie, South Africa, is dedicated to tree breeding, seed technology, propagation techniques, and silviculture. The scientists at this center help Sappi—and the forest products industry at large—understand climate factors and build better protocols for healthy forests. A second Sappi technology center in South Africa sits in Pretoria, the nation’s capital city. This center is an innovation hub for Sappi’s South African operations and focuses on pulping technology, fiber processing, and paper and packaging science, as well as environmental sciences.

In support of our dissolving pulp business, Sappi houses a technology center at Umkomaas, South Africa, which is the center of excellence for dissolving pulp technology, processing, and customer quality assurance.

Within the Sappi Europe system, the central technology center is in Maastricht, Netherlands, where advancements in the areas of papermaking, packaging, and barrier chemistry development are explored. In this same area sits the nanocellulose competency center, including a pilot plant that produces our branded Valida products. A second Sappi technology center in Europe exists in Graz, Austria, where technical expertise in fiber processing and coating technology is developed. In support of our Sappi Biotech division, we operate Wilton Centre in Redcar, UK, which is our biorefining center of excellence. Our newest center, established in 2017, is focused on extracting added value from trees through biodegraded chemicals and supporting our lignosulphonate business.

This global network of Sappi technology centers is working to unlock the power of trees to make every day more sustainable for our customers and communities.
Sustainability goals

At Sappi North America, sustainability is a key pillar that informs every action we take to unlock the power of trees. By setting new targets aligned with the United Nations’ Sustainable Development Goals, we continue to raise the bar, innovate, and meet the needs of our employees, customers, and stakeholders.
Our Sustainable Development Goals for 2025

We’ve made the United Nations Sustainable Development Goals (SDGs) an integral part of our business. The goals define 17 global priorities that challenge us all at Sappi to apply our creativity and innovation to solutions for complex issues ranging from climate change to responsible consumption and production.

The SDGs were a natural starting point to develop Sappi’s new sustainability framework and 2025 targets. These goals enabled us to establish focused, ambitious, and measurable targets that will deliver on Sappi’s business strategy, as well as address broader global concerns. Aligning with SDGs also creates the right context for our employees and serves as a common language for our stakeholders and customers.

Focus teams across Sappi worked intensively to evaluate the 17 SDG themes and identify the seven goals where we could be most impactful, setting these as our global priorities.

Sappi is joining the call to step up—using our global impact and working with governments, civil society, businesses, and society—to achieve ambitious action for sustainable development.

Outlined on this page are our North American 2025 goals. If you are interested in other Sappi regional goals, please visit sappi.com/sustainability-and-impact.

<table>
<thead>
<tr>
<th>UNSDG 6</th>
<th>Clean water and sanitation</th>
</tr>
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<tbody>
<tr>
<td>Reduce specific water use in water-stressed locations*</td>
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<table>
<thead>
<tr>
<th>UNSDG 7</th>
<th>Renewable and clean energy</th>
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<tbody>
<tr>
<td>Increase share of renewable and clean energy</td>
<td>Within 5% of baseline (75%–83%) or higher</td>
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<tr>
<td>Decrease specific total energy</td>
<td>5%</td>
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<thead>
<tr>
<th>UNSDG 8</th>
<th>Decent work and economic growth</th>
</tr>
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<tbody>
<tr>
<td>Achieve zero injuries</td>
<td>Zero injuries</td>
</tr>
<tr>
<td>Increase proportion of women in management roles</td>
<td>4% pts</td>
</tr>
<tr>
<td>Increase participation in Employee Engagement Survey</td>
<td>&gt; 85%</td>
</tr>
<tr>
<td>Increase percentage of staff fully engaged with our business</td>
<td>&gt; 75%</td>
</tr>
<tr>
<td>Increase share of procurement spend with declared compliance with Supplier Code of Conduct</td>
<td>80%</td>
</tr>
<tr>
<td>Increase return on net operating assets (RONOA)</td>
<td>2% pts above WACC†</td>
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<table>
<thead>
<tr>
<th>UNSDG 12</th>
<th>Responsible consumption and production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Launch products with defined sustainability benefits</td>
<td>5 products</td>
</tr>
<tr>
<td>Reduce specific landfilled solid waste</td>
<td>10%</td>
</tr>
</tbody>
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<thead>
<tr>
<th>UNSDG 13</th>
<th>Climate action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decrease specific greenhouse gas (Scope 1 + 2) emissions</td>
<td>5%</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>UNSDG 15</th>
<th>Life on land</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase share of certified fiber</td>
<td>100% chain-of-custody (CoC) purchased pulp</td>
</tr>
<tr>
<td></td>
<td>47% FM/CoC² purchased wood</td>
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<tr>
<th>UNSDG 17</th>
<th>Partnerships for the goals</th>
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</thead>
<tbody>
<tr>
<td>Build and activate mutually beneficial partnerships</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

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* This target currently applies to Sappi’s mills in South Africa; Sappi’s mills in North America and Europe are not located in water-stressed locations.
† WACC: weighted average cost of capital
‡ FM/CoC: forest management/chain of custody
People

Achieve zero workplace injuries

**UNSDG 8**

In 2021, we experienced an increase in our LTIFR, to 0.33, after achieving our best-ever rate of 0.16 in 2020. Despite this increase, we were still below our five-year average of 0.38 and continue on a well-established, 10-year downward trend. While we recorded an unacceptable LTIFR of 0.80 during the first quarter, our renewed attention to safety protocols resulted in improved safety performance at our Cloquet Mill, and in the fourth quarter, there were no lost-time injuries across all of SNA. We are confident that with continued emphasis on safety leadership training, leading indicators, cultural factors, and sustained, proactive, on-the-floor efforts, we will maintain our excellent safety performance.

Increase percentage of women in senior management roles

**UNSDG 8**

As part of a global objective to enhance the diversity of its workforce, Sappi created this new goal in 2021, which also directly aligns with UNSDG 8, which promotes economic growth and decent work. The 2021 goal for women in senior management positions is 20%, and at year end, we exceeded this goal with 21% of women in senior management positions. Despite unprecedented labor shortages, our focus remains to hire, develop, and promote talented candidates with diverse experiences and backgrounds.
People

Promoting employee engagement

UNSDG 8

Every two years, the entire Sappi group undertakes an employee engagement survey, from which we have established two metrics: participation and sustainable engagement. Sappi conducted a new survey in fiscal 2021 with a goal of 74% employee participation and a sustainable engagement score of 80%. The 2021 Employee Engagement Survey ran from March 8 through April 2, 2021. The overall participation rate was 65.5%, missing our fiscal 2021 goal of 74%. Due to a change in the engagement survey provider, performance against the previously established sustainable engagement goal can no longer be measured. Sappi has therefore set a new global goal, relative to the percentage of staff engaged in the business, of 75%. Against this measure, Sappi North America achieved a score of 69% in the most recent survey.

Since conducting the 2021 survey, every department and site has reviewed the survey results, conducted focus groups, and developed comprehensive action plans to improve both survey participation and overall engagement in the business. The next global employee engagement survey will be conducted in 2023.
Planet

Decrease specific total energy

UNSDG 7

This remains an important metric that has been used for the last five years and is being continued into 2025. It aligns with UNSDG 7, which calls for improved efficiency and an increase in energy efficiency.

Energy intensity, commonly referred to as specific energy, is one of our most important mill metrics. It captures the efficiency of our operations in both the numerator (gigajoules [GJ] of energy consumed) and the denominator (metric tons [mt] of saleable product [pulp and paper] produced). Specific energy can be reduced in two different ways: by reducing total energy use through improved efficiency (e.g., capital investment or equipment optimization) or by producing finished product with less waste.

The 2025 goal is to decrease specific total energy (GJ/mt) by 5% from a 2019 baseline. Our fiscal 2021 results are significantly ahead of both the annual target (1% reduction) and the five-year target (5% reduction), as we achieved a decrease of 7.2%. The primary drivers of this decrease were improved operating rates and efficiencies compared to the 2019 baseline. Successful completion of numerous Lean Six Sigma projects focused on energy savings, which also contributed to overall performance. One example is the Cloquet Evaporator Flush Reduction project. (See page 40.) The Westbrook Mill infrastructure change led to the retirement of PM9, which drove a significant improvement in energy use.
Renewable and clean energy

UNSDG 7

We selected this new goal because of its direct alignment with UNSDG 7, which calls for an increase in renewable and clean energy.

Sappi North America already operates with a high percentage of renewable and clean energy. We seek to achieve an outcome within 5% of the 79.1% 2019 baseline. Data, including the baseline, is adjusted down for sales of renewable energy credits (RECs) and provides credit for the procurement of emissions-free energy certificates (EFECs).

Fiscal 2021 results are just above the baseline and therefore within the range set for the five-year goal (75%–83%). The Somerset Mill consumed more renewable biomass, offsetting the downtime of the anaerobic digester at the Matane Mill, which generates biogas, and the reconfiguration of the Westbrook Mill, which resulted in the elimination of biomass at that site.

Decrease specific GHG (Scope 1 and 2) emissions

UNSDG 13

We selected this new goal because of its alignment with UNSDG 13 to take action on climate change by reducing emissions.

The year-end results are significantly ahead of both the annual target (1% reduction) and the five-year target (5% reduction). As mentioned above, the Somerset Mill’s consumption of biomass significantly contributed to driving these results, as did fiscal 2021 being our first full year of purchasing EFECs, which contribute to the lowering of our Scope 2 emissions.
Reduce specific landfilled solid waste

UNSDG 12

We selected this new goal because of its alignment with UNSDG 12, which promotes responsible consumption and production.

The year-end results are significantly ahead of the fiscal 2021 target (2% reduction) and almost at the five-year target (10% reduction). All sites met our landfill target except for the Matane Mill, which was impacted by the anaerobic reactor running at less than full capacity in the fourth quarter, resulting in greater landfill use. The retirement of PM9 at the Westbrook Mill had a positive impact, as did the Lean Six Sigma project at Somerset (see page 41), which increased sludge burning time so less material was landfilled.
Increase share of certified fiber

UNSDG 15

Sappi's certified fiber procurement goal aligns with UNSDG 15, which includes sustainably managed forests. This long-standing goal includes an updated five-year target to maintain third-party certification on more than 47% of our wood and chip purchases and 100% of kraft pulp purchases.

Separating wood and chip purchases from pulp purchases enables Sappi to more transparently track our performance and commitments across all woodfiber input types, independent of market fluctuations and decisions to consume pulp from our own facilities or externally purchased kraft.

All of SNA's US-based mills are triple-CoC certified under the Forest Stewardship Council® (FSC®-C014953), the Sustainable Forestry Initiative® (SFI®) program, and the Programme for the Endorsement of Forest Certification (PEFC/29-31-10). Sappi’s Matane Mill in Quebec is FSC (FSC-C151943) and PEFC (PEFC/26-31-135) CoC certified.

In 2021, 49.29% of our wood and chip purchases for our North American mills were third-party certified to SFI, FSC, or PEFC. This is higher than the 2021 target due to an increased emphasis on certified fiber, improvements in data tracking procedures, and good winter-harvesting conditions. As is standard business practice and policy, 100% of SNA’s purchased kraft pulp was chain-of-custody certified.
Prosperity

Return on net operating assets

**UNSDG 8**

Sappi Limited’s new financial goal for measuring prosperity is return on net operating assets (RONOA), which is captured under UNSDG 8 and promotes sustainable economic growth, employment, and decent work for all. RONOA is the ratio of operating income to average net operating assets. Earnings before interest, taxes, depreciation, and amortization (EBITDA) remains a vital metric included in our key performance indicators.

RONOA, which measures both profits and the capital required to generate those profits, ensures the right balance between growth and returns. Our goal is to achieve a RONOA 2% above our weighted average cost of capital (WACC), which today implies a goal of 14% but will vary over time as our WACC changes. SNA RONOA was 8.1% this year, well ahead of our 2021 business plan.

SNA’s operating income increased significantly in fiscal 2021, to $105 million, as we delivered our strongest financial performance since fiscal 2011. Margins expanded across all our businesses, driven by strong market demand, a series of successful price increases, and mix optimization across our assets, which ran full the entire year. Our investments in recent years, including the rebuild of PM1 at the Somerset Mill to enter the paperboard market, the acquisition of the Matane pulp mill in Canada for additional fiber integration, and the debottlenecking of the Cloquet pulp mill for dissolving pulp growth, all contributed to this year’s financial success. Our RONOA growth demonstrates we have successfully transformed our business by diversifying into new markets through strategically sound investments, then delivering returns on those investments.

Looking to 2022 and beyond, SNA is confident our RONOA will continue to improve, driven by higher profits on recent investments and from future high-return investments. For a comprehensive review of our financial results, refer to our 2021 Annual Integrated Report.
Prosperity

Share of procurement spend with declared compliance with Supplier Code of Conduct

UNSDG 8

We selected this new goal because of its alignment with UNSDG 8, which promotes economic growth and decent work for all.

Sappi recognizes our procurement choices can have an impact on important economic, environmental, and social influences in the communities where we operate and beyond. We actively seek enhanced collaboration and partnerships with suppliers who also believe in our supplier code of conduct. Our goal is an 80% share of procurement spend by 2025 with suppliers who have declared compliance with our supplier code of conduct. Our suppliers in turn become key partners, playing a role in helping to realize Sappi’s mission, values, and principles. In 2021, our efforts to effectively communicate this message with our suppliers resulted in a 53% share of supplier spend that included declared compliance with our group supplier code of conduct, surpassing our target of 50%.

Launch of products with defined sustainability benefits

UNSDG 12

We selected this goal because of its alignment with UNSDG 12, which seeks to ensure responsible consumption and production.

Our 2025 goal is to launch five new products with defined sustainability benefits. By the end of fiscal 2021, we had planned to launch two new products, and released one: Ultracast Viva®. This textured release paper line is the industry’s first premium high-fidelity casting paper compatible with solvent-free systems. The pandemic hampered our ability to launch a second product by slowing our access to timely market feedback. A number of products are targeted for launch in 2022.

We are using the Sustainable Packaging Coalition’s working definition for sustainable benefit. (See page 61 for further details.)
Sappi is dedicated to fostering a positive environment for both our employees and the communities that help us thrive. We are committed to adapting our operations to changing circumstances to keep our communities safe and our employees engaged and motivated.
Sappi improves safety rate, invests in safety leadership training

UNSDG 8

After a challenging start in the first quarter of fiscal 2021 at our Cloquet Mill, the next three quarters demonstrated sustained improvement in safety at Cloquet and rock-solid performance across the other sites. In fact, Sappi North America completed the fourth quarter with no lost-time injuries, and, for the year, four out of our five manufacturing sites experienced their best-ever lost time injury frequency rate (LTIFR) performance.

In response to the challenges of COVID-19 and the uneven start at the Cloquet Mill, the SNA Safety Platform launched new strategies to keep our teams focused during the upcoming year. Each site sets targets for proactive safety activities that invest in the prevention of injuries, rather than reactively looking at the latest injury and then applying the corrections needed. These targets are now a regular part of our daily safety life, and we track and report them across Sappi.

In addition, we invested in safety leadership training at our Somerset and Cloquet mills with the intent of extending the training to other sites in fiscal 2022.

“When I reflect on what it means to me to be OneSappi, I first think about the safety of all of my coworkers,” says Mike Schultz, Vice President of Manufacturing for SNA. “Have we established a culture where we are truly looking out for each other? By the numbers, SNA achieved a safe year with many milestones and records achieved. But to get to that next level, all of us need to be engaged in safety every day.”

As we reviewed the types of injuries and their root causes, we found that our investigation procedures lacked the ability to identify cultural factors that affected the rate and severity of the injuries our workers were experiencing. We therefore modified our procedure to include root causes, such as peer pressure, production pressure, and other factors not previously available to the investigation team. We now collect new root-cause data on cultural factors and are better able to respond where appropriate.

Another area of advancement is the use of statistical techniques that help signal a change in the incident rate at our facilities. We now use these techniques to formally trigger a site-level review of safety trends and activities much earlier than we have in the past.

Application of these and our previously successful policies and procedures, such as continued engagement with employees, labor unions, contractors, and joint Safety Leadership Councils, produced an excellent finish to fiscal 2021. We continue to look forward to using our leading safety indicators to drive our performance, and we have some excellent results to show for our efforts to date.

The Matane Mill remains free of lost-time injuries since joining Sappi; our Allentown sheeting facility is well over five years with no LTIs; the Westbrook Mill is at 11 months and counting since its last LTI; and the Cloquet Mill is back on track with no LTIs in six months. The Somerset Mill achieved more than 1.5 million work hours with no lost-time injuries and surpassed a full year with no LTIs for the period from December 23, 2020, through all of December 2021.

While we have plenty to celebrate and build upon, we are again reminded that the threat from COVID-19 is still in our midst, and we can never let our guard down. A keen focus on the tasks that prevent injuries, as well as taking a safety pause before any task we undertake, will guide us on our journey to achieving zero injuries to all who work at Sappi.
Employee ambassadors deliver Sappi’s sustainability commitment to communities

UNSDG 17

Our Lead Sustainability Ambassadors, a team of passionate leaders across our North American locations, as well as our sales team, work together to drive employee engagement through a variety of activities—whether it’s organizing a volunteer event with a local charity, improving an on-site recycling program, or promoting educational opportunities.

This year we made a structural change and created a Senior Lead Sustainability Ambassador role to ensure new ideas and energy are being brought forward to the group. It will be a rotational role, allowing enough time for each new Senior Lead Ambassador to make their mark.

Rachel Kaul, Customer Technical Scientist at our Westbrook Technology Center, is our new Senior Lead Sustainability Ambassador. This change follows another structural change: Sarah Manchester, Vice President, Human Resources and General Counsel, is now the executive sponsor for the Lead Sustainability Ambassadors. This role underscores the importance of the ambassador work, creating a direct link to the SNA senior leadership team.
Sappi leaders recognized for excellence

Rebecca Barnard wins SAF Young Forester Leadership Award

UNSDG 8

The Society of American Foresters (SAF) has bestowed Rebecca Barnard, Sappi Forestry Certification Manager, with the Young Forester Leadership Award for her dedication to sustainability and responsible forestry.

“We are thrilled for Rebecca’s achievement,” says Anne Ayer, Vice President, Pulp Business and Supply Chain. “Rebecca is a tremendous asset to Sappi with her wealth of industry knowledge and expertise. This award is a testament to her commitment to responsible forestry and advancing Sappi’s mission of sustainable innovation. It could not be more well deserved.”

The Young Forester Leadership Award recognizes outstanding leadership by a young forestry professional in the development and promotion of an individual program or project or for a sustained leadership role benefiting the practice of forestry and SAF. Recipients, who must be 40 or younger, are evaluated based on outstanding leadership in the profession, outstanding leadership in SAF, and sustained leadership roles benefiting the practice of forestry.

“Receiving SAF’s Young Forester Leadership Award is a personal and professional honor,” says Rebecca. “Reflecting on the achievements during my career, these successes were made possible only by the passion and collective efforts of many equally dedicated leaders within our industry and the support I’ve received from my employers, including Sappi. I look forward to continued service to the forestry profession and SAF.”

Rebecca, who was named in 2018 as Sappi’s manager of forest certification, has over 15 years of forestry experience. Prior to her role at Sappi, she served as the national forestry programs manager for the National Wild Turkey Federation from 2013 to 2018 and as the forest certification coordinator for the Minnesota Department of Natural Resources from 2008 to 2013. She also chairs SAF’s National Committee on Forest Policy after serving a three-year term on the committee membership team.

A SAF member since college, Rebecca has held various leadership positions with the Minnesota Society of American Foresters.
Marjorie Boles honored with ORBIE® Award as CIO of the Year

UNSDG 8

Sappi Limited Group Chief Information Officer Marjorie Boles has been named a global winner of the prestigious ORBIE Awards for 2021 Boston CIO of the Year.

“We are incredibly proud of Marjorie, and this recognition is well deserved,” says Steve Binnie, CEO of Sappi Limited. “Over two decades, we’ve seen the remarkable impact Marjorie has made on our organization, particularly in her role as global CIO. She continues to drive value and implement innovative processes across the business, which is core to Sappi’s identity.”

The ORBIE Awards recognize CIOs who have demonstrated excellence in technology leadership and are judged by an independent peer review process on the following criteria:

• Leadership and management effectiveness
• Business value created by technology innovation
• Engagement in industry and community endeavors

Marjorie has been with Sappi since 1999 in various leadership positions. In 2012, she assumed global responsibility for Sappi’s customer-facing digital solutions before being appointed CIO of Sappi North America and named a member of the global IT Leadership Council in 2016.

She has been CIO of Sappi Limited since 2018. Prior to joining Sappi, Marjorie worked with Andersen Consulting as a process optimization consultant and drove technology improvements for equity and control operations at Fidelity.

Created in 1998 by the InspireCIO Leadership Network, the CIO of the Year ORBIE Awards is the premier technology executive recognition program in the United States, honoring CIOs across public and private business, government, education, healthcare, and nonprofit organizations.

To date, over 1,800 CIOs have been finalists, and 400 CIOs have received this award.
Ideas that Matter

At Sappi, our Ideas that Matter mission is dedicated to the concept that good ideas inspire people to take action and great ideas change the world. Since we began this program in 1999, we’ve bestowed nearly $14 million in grants to empower those great ideas. We adjust the focus periodically to keep the program in sync with the world’s changing needs.

This year, we’re making it easier to apply, and we’re calling on applicants to support one of the 17 United Nations Sustainable Development Goals (SDGs). We’ve sharpened the focus on which projects to support and where this grant money will be used most effectively. We’ve asked applicants for the Ideas that Matter grants to demonstrate how their work will help serve, change, or support one of the 17 SDGs.

Ideas that Matter to focus on Sustainable Development Goals

UNSDG 17

The SDGs incorporate a call for action by all countries in global partnership to help our planet prosper. And since Sappi has made the SDGs an integral part of our company culture, incorporating these goals into everything we do, this shift makes good business sense.

We also recognize the need to make this inspiring program accessible to everyone. You can now enter the program from anywhere in the world at no cost, and judges can review the work from anywhere at any time.

Ideas that Matter continues to be more than just a grant program. From national nonprofits to local community initiatives, the breadth, quality, and impact of projects we’ve supported have made a meaningful difference in people’s lives across the globe. And now we’ve made these grant projects more able to contribute to the betterment of the world by easing the application process and supporting the SDGs.
2021 Employee Ideas that Matter recipients make a difference in our communities

UNSDG 17

The 2021 Employee Ideas that Matter grant winners inspired all of us at Sappi North America with their enthusiasm and dedication to their communities.

Even during the effects of an unprecedented pandemic, many of our employees took the time to apply for an EITM grant to make a difference in the lives of others. The competition was tough, but the 10 grant recipients represent a wide range of contributions by Sappi employees that really matter to each of their communities.

Congratulations to all the winners! We are proud that you have made a meaningful impact with your chosen organizations.

Eric Bernier and Jimmy Simard from the Matane Mill used their 2021 Employee ITM grant to purchase first-aid supplies and equipment for the Matane Canadian Ski Patrol, for which they are volunteer patrollers.
Employee Ideas that Matter featured stories

**Laura Brosius: A Brighter outlook for women affected by cancer**

Laura Brosius, Senior Manager, Strategic Partnerships, used her 2021 Employee Ideas that Matter grant of $5,000 to help fund the second edition of *Brighter Magazine*, a lifestyle publication that serves the mental, physical, emotional, and spiritual wellbeing of all women affected by cancer.

“After being diagnosed with breast cancer and now going through radiation treatments, I have experienced firsthand the lack of printed resources for cancer patients,” Laura says.

*Brighter Magazine* states, “The moment a woman is diagnosed with cancer, the way she looks at everything changes. What once were simple pleasures become complicated.”

“Finding lifestyle information in one place that relates to today’s cancer survivor is a challenge. Skin care and beauty needs become quite different and specific to these amazing women. Relationship status often becomes difficult as they work to balance things such as school, work, family, and friends with treatment and medical appointments. These women are special, they have special needs, and that is the reason for *Brighter*.”

**Kathie Gagnon: Creating a calming place for students**

Kathie Gagnon, Senior Inside Sales Representative in South Portland, Maine, used her 2021 Employee Ideas that Matter grant of $1,500 to create a calming space for students at Windham Primary School who are struggling with anxiety.

“Because of the pandemic and the CDC guidelines, we began using our calming space materials in individual classrooms,” Kathie says. “Through this experience, we learned we could expand this model and add even more tools to our calming area for classrooms to ‘borrow’ and return for others to use. Students also talked with us about other tools they would use to help with anxiety.”

*The Windham Eagle* published a letter to the editor from Therese Bernier-Burns, a behavioral specialist at Windham Primary School, who thanked Sappi and Kathie for making the calming space possible.

“Sappi has done an outstanding job partnering with our community to help meet the needs of schools and learners,” Therese wrote in her letter. “I am grateful that Kathie reached out to me to ask about our needs. She and Sappi have created a wonderful school model that helps Windham Primary School and others across the country and in Canada.”

“Thank you, Sappi and Kathie,” she wrote. “Your efforts are noticed and appreciated!”
Rachel Kaul and Arbin Rajbanshi: Helping find balance for children

UNSDG 17

Rachel Kaul and Arbin Rajbanshi, Customer Technical Scientist and Research Scientist, Tech Center, used their 2021 Employee Ideas that Matter grant of $2,257 to build a balance and kinesthetic playground at the Little Dolphin School in Maine.

The project involved the creation of a new area in the playground for 3-year-olds, which is now designated for balance, proprioception, and kinesthetic awareness. Rachel and Arbin used their grant to buy and install balance beams.

The Little Dolphin School’s mission is to provide the highest-quality comprehensive childcare services for young children ages zero to 6, regardless of social or economic status. The school is dedicated to enhancing young children’s intellectual, social, emotional, physical, and creative development.

“We do this in a warm, nurturing, enriched environment,” states the school’s website. “Children learn and develop differently. Therefore, our curriculum sparks all the senses, allowing self-esteem to soar!”

2021 Employee Ideas that Matter Program Grant Recipients

Eric Bernier and Jimmy Simard, Matane Mill
Purchased Canadian Ski Patrol first-aid equipment.

Laura Brosius, Sales
Produced Brighter Magazine, a lifestyle publication for women affected by cancer.

Alex Brownwell, South Portland
Purchased books for the giving library at the Barbara Bush Children’s Hospital.

Ray Charles, Somerset Mill
Built a dock to the waterfront for the disabled at Camp CaPella.

Kathie Gagnon, South Portland
Created calming resources for students at Windham schools.

Radi Ivanova, Boston
Purchased soundproofing for the children’s space in the Bulgarian School at the Bulgarian Center of New England.

Rachel Kaul and Arbin Rajbanshi, Westbrook Technology Center
Built a balance and kinesthetic playground at the Little Dolphin School.

Tara Kimmel, Cloquet Mill
Created a “Story Stroll” in partnership with the library in Fond du Lac.

Diane Loud, Boston
Created self-care bags for displaced youth at LiKen, Inc.

Lindsey Smith, Westbrook Mill
Funded “dreams” for critically ill children at Dream Factory of Portland.
Advancing STEM careers for women: Sappi partners with Girl Scouts of Maine and TAPPI

**UNSDG 17**

A Sappi-led initiative that teaches Girl Scouts the science and technology of the pulp and paper industry will reach a larger number of scouts across the country with the 2022 launch of a virtual program.

The opportunity for Girl Scouts to earn a Paper Scientist Patch originated in 2017, when Sappi Sustainability Ambassadors from Southern Maine partnered with Girl Scouts of Maine to create the program. Girl Scouts from around the state attended a “paper scientist expo” at Sappi’s Technology Center in Westbrook.

At the expo, girls participated in activities aimed at teaching the science of paper, ranging from papermaking to recycling. The program and event were a success, and the technology center hosted another expo the following year.

To broaden its reach to Girl Scouts across the country, Sappi partnered with the Women in Industry division of TAPPI to develop a nationwide Girl Scout patch program that celebrated the science and technology of the pulp and paper industry. The women involved in the project represent companies from across the pulp and paper industry, as well as several colleges and universities. Organizers in 2019 conducted a paper scientist expo in North Carolina and another two in Maine.

While preparations were underway for more expo events around the country, COVID-19 brought the paper scientist expos to a halt. Undeterred by this setback, the group—which included Rachel Kaul, Mary Buckelew, and Beth Cormier from Sappi—persevered and pivoted to a virtual patch program design. The virtual program, set to launch in early 2022, will be accessible to an even larger number of Girl Scouts.

In the new virtual experience, Girl Scouts follow the timeline of paper from tree to recycling facility and everything in between. To earn the patch, girls complete activities at six stops on the virtual map. Each stop includes interactive and educational activities that teach about the different parts of a tree, how paper is made, the use of pulp and paper in items found at home, and the importance of recycling.

“With the positive experiences that girls had at the in-person paper scientist expos in 2018 and 2019, we are excited to add a virtual option for completing the Paper Scientist Patch program,” says Samantha Lott Hale, Programs Director for Girls Scouts of Maine. “The virtual scavenger hunt includes all the links and instructions so Girl Scouts anywhere can learn about, reflect upon, and take action on paper, the environment, and sustainability. The virtual assets highlight the interesting science behind papermaking and the environment, and give Girl Scouts the chance to explore STEM career options.”

We can’t wait to get this program into the hands of more girls to see where this new knowledge takes them!
The Maine Timber Research and Environmental Education Foundation (Maine TREE Foundation) has been hosting tours for educators in the state’s northern forests for more than 20 years, showing teachers how to promote the forest products industry.

The four-day Forests of Maine Teachers’ Tour is a professional development program focused on immersing Maine educators in the northern forests of the state. The tours open with the Project Learning Tree workshop, an award-winning, standards-aligned curriculum that uses forests as a teaching tool.

Educators then explore sustainable forest management through the eyes of many stakeholders, including landowners, foresters, loggers, mills, and community members.

Due to COVID-19, the tours were held virtually in 2020 but returned in 2021 for in-person programming, with two tours in the Moosehead Lake and Katahdin regions of Maine. Twenty-one teachers attended the 2021 Moosehead Lake tour.

“We want to show that there is a place for young people and women in the logging industry in the state,” says Molly London, a forester with Maine TREE Foundation.

Teachers are asked to encourage students as early as the third grade to learn about the forest products industry and the many opportunities it can provide. The tours prepare participants to return to the classroom with stimulating approaches to share knowledge about forests and to develop ideas on how to bring the classroom to the forest. Sappi provided scholarships for two teachers who attended.

Founded in 1989, Maine TREE Foundation’s mission is to educate and advocate for the sustainable use of the forest, as well as the ecological, economic, and social health of Maine’s forest community.

**UNSDG 17**

Tours educate Maine teachers about sustainable forestry and the logging industry

Teachers learn the importance of Maine’s northern forest.
Paper and Packaging Board highlights sustainability story, dispels deforestation myths

UNSDG 12

For seven years and counting, Sappi continues to be a proud sponsor of the Paper & Packaging Board’s How Life Unfolds® campaign, which highlights our commitment to innovative and sustainable products. This national marketing campaign tells the story of paper and paper-based packaging to consumer and business audiences across a highly targeted media ecosystem by spotlighting our industry’s sustainability story and dispelling deforestation myths. The campaign features stories about our stewardship of resources and constant pursuit of innovation and sustainability.

To combat myths about deforestation and reduce consumption guilt, the new sustainability campaign emphasizes how our industry protects wildlife and habitats; creates innovative, renewable products; and supports the health of our planet through recycling and sustainability efforts. Using print, video, and social media ads, the P&PB’s new campaign connects with the young and the young at heart through a world awash in color and relatable storytelling. This campaign alone has amassed almost 48 million video views across social media, CTV, and display platforms.

With a team of marketing experts and research-driven insights, the campaign strengthens positive consumer perceptions about the sustainability practices of our industry and its products. This year, P&PB used an “attitudes and usage” study as a benchmark tracker, which included updated questions for the new campaign. Overall, 76% of respondents rated the paper and packaging industry as trustworthy.

The data reflects increased consumer concern for the environment. The P&PB study found a few significant misconceptions. Of respondents ages 18 through 49, 42% believe US forests are shrinking and, more surprisingly, 47% believe the paper industry is cutting down trees in national parks. In response to growing consumer concern over the environment and a belief that governments and companies should do more, the campaign continues to focus on the industry’s legacy of strong environmental stewardship and sustainable product benefits.

Our products are essential to how people live, work, and care for our planet—and that story is our industry’s shared future. Informed, confident customers are encouraged to do their part by choosing paper and paper-based packaging. Learn more at HowLifeUnfolds.com.

DID YOU KNOW?

• In the United States, which contains 8% of the world’s forests, there are more trees than there were 100 years ago.

• Forest growth nationally has exceeded harvest since the 1940s.

• By 1997, forest growth exceeded harvest by 42%.

Planet

We take pride in our efforts toward making our world more renewable. Using sustainable forestry practices in certified forests, saving energy in our mills, reducing waste, and educating our communities on better practices are some of the ways we take steps to lower our footprint. Offering sustainable alternatives to fossil-fuel-based materials also plays a critical role in changing our planet for the better.
Advancements in SFI 2022

Forest certification provides solutions to healthy forests and responsible consumption, and Sappi follows certification standards set by several organizations, including the Sustainable Forestry Initiative®. Now, with input from Sappi North America, SFI has enhanced its world-class standards for companies to achieve their certification.

“SFI has the scale to make a difference with more than 375 million acres certified to the SFI Forest Management Standard, and tens of millions more certified to the SFI Fiber Sourcing Standard.”

Kathy Abusow
SFI President and CEO

Sappi contributes to new SFI forest-certification standards that address global sustainability

UNSDG 12 UNSDG 13 UNSDG 15

SFI, a nonprofit organization that advances sustainability through forest-focused collaboration, manages one of the largest forest-certification standards in the world. Nearly 2,300 individuals and organizations participated in the development of the SFI 2022 standards, and Sappi provided prominent leadership and direct engagement in the process: Rebecca Barnard, Forestry Certification Manager for SNA, chaired the SFI Fiber Sourcing Standards Revision Task Group.

Continuous improvement is critical for the sustained success of forest certification. Between 2019 and 2021, SFI embarked on a transparent, inclusive, collaborative, and comprehensive effort to revise and expand the SFI standards with an emphasis on improved clarity for certificate holders and the incorporation of the best-available science and emerging issues. The SFI 2022 standards now align with many of the United Nations Sustainable Development Goals.

SFI included input from the conservation community, indigenous communities, the forest products sector, brand owners, forest landowners and managers, government agencies, trade associations, landowner associations, academia, and the public.
SFI’s major enhancements document highlights key updates to the standards. Sappi is eager to implement the revised standards in 2022 in coordination with our suppliers, specifically:

**Climate-smart forestry (new)**
Forests play a key role in the carbon cycle and with proper management can be one of the most effective nature-based solutions to the climate crisis. SFI-certified organizations will now be required to ensure forest management activities address climate change adaptation and mitigation measures.

**Biodiversity conservation (enhanced)**
Enhancements in the Forest Management Standard ensure that landscape-scale analyses and research inform management decisions. By linking management decisions to analyses of landscape conditions and biodiversity conservation goals, managers will be better able to respond to the needs of wide-ranging species, the distribution of ecologically important natural communities, and the role of the managed area toward attaining critical biodiversity outcomes.

Noncertified landowners represent the majority of the fiber supply in the United States. A new requirement in the Fiber Sourcing Standard requires SFI-certified organizations to conduct an assessment of imperiled species and native plant communities across their wood and fiber supply areas to better conserve biodiversity at both local and landscape levels.

**Logger training (enhanced)**
Logger training has been a key component of SFI since 1995. Loggers who are aware of their responsibility as professionals are better equipped to protect the environment. SFI-certified organizations must maximize the use of and accept raw-material deliveries from qualified logging professionals.

**Cooperative efforts involving SFI Implementation Committees (new)**
Several requirements can be effectively addressed through cooperative efforts involving SFI Implementation Committees for improved efficiency and consistency. Examples include conservation of biological diversity, climate-smart forestry, forest research, improved logger training, and outreach to landowners.

**Due diligence system (enhanced)**
When procuring fiber, avoiding controversial sources is critical to achieving sustainability targets. Recognizing this, SFI developed a comprehensive definition of controversial sources and expanded requirements for a due diligence system to assess the risk of controversial sources entering a certified organization’s supply chain.

When leveraged with SFI’s conservation, community, and education programs, SFI standards provide practical, scalable solutions for markets and communities. Through SFI standards, more forests are sustainably managed, thus conserving healthy wildlife, providing clean water, and making more sustainable wood, paper, and packaging products available for consumers. Sustainable forests—and products sourced from SFI-certified forests—are a great tool to move toward shared sustainability goals, such as climate action, biodiversity conservation, fire resiliency, clean water, and economic development.

Furthering SFI’s global recognition, the Programme for the Endorsement of Forest Certification (PEFC) endorsed the revised SFI Forest Management Standard in December 2021. With more than 40 endorsed national certification systems and over 790 million acres of certified forests, PEFC is the world’s largest forest certification system.

“SFI has the scale to make a difference with more than 375 million acres certified to the SFI Forest Management Standard, and tens of millions more certified to the SFI Fiber Sourcing Standard,” says Kathy Abusow, SFI President and CEO. "Because the standards require independent, third-party audits, organizations that use them are responding to the ESG expectations of investors, customers, and communities."

Sappi is impressed by SFI’s leadership on forest certification, and we are excited to implement these enhanced standards on key topics of importance to our customers, as well as for the positive impact these changes will have on forests and communities.
Working forests serve as natural climate change solution

UNSDG 13

The United Nations Sustainable Development Goal 13, which urges action to combat climate change and its impacts, is arguably the most relevant UNSDG for Sappi.

The pulp and paper sector ranks third in the manufacturing sector for energy consumption, according to the US Energy Information Administration.* At the same time, trees—with their natural ability to sequester and store carbon—are the primary raw material used for the manufacture of pulp and paper, and they are identified as playing a key role in addressing climate change. The vital role of trees was evident at the fall 2021 UN Climate Change Conference (COP26) in Glasgow, Scotland, where 141 leaders committed to halt and reverse forest loss and land degradation by 2030, as outlined in the Glasgow Leaders’ Declaration on Forests and Land Use.§

The signatories noted “the critical and interdependent roles of forests … to help achieve a balance between anthropogenic greenhouse gas emissions and removal by sinks; to adapt to climate change; and to maintain other ecosystem services.” To say it is an exciting time to be in the wood products industry is an understatement.

Sappi is well positioned to make a difference. First, we continue to focus on reducing the energy intensity and greenhouse gas (GHG) emissions associated with our operations, as evidenced by two of our 2025 goals—to decrease specific total energy and specific GHG emissions—as well as by our commitment to the Science Based Targets initiative. Second, we source our wood from North American regions that are climate healthy.

The Forest Resources Association issues a carbon report for each state. In Maine, the forest carbon stocks have increased by 5% from 1990 to 2019, and in Minnesota by 8% over the same period.¶

The role of our forests in mitigating climate change is essential. However, that does not mean that forests should not be harvested. While forest preservation has a place, active forest management has a significant role to play—perhaps even more so in the face of climate change and the unique challenges that come with it, such as drought and pests, making forests even more vulnerable to significant devastation by wildfire.

In both Maine and Minnesota, we may be reaching a biological tipping point. The University of Maine applied a metric for forest health, called “relative density,” to national inventory data. The hypothesis is that the greater the relative density of the forest, the more vulnerable it will be to the threats posed by a changing climate.

The figure at right shows two maps of the United States taken at different periods. The illustration makes the point that the forest relative density has increased over time, and in the case of Maine and Minnesota, for instance, the forest is generally at high relative density. Thus, Maine and Minnesota forests are well positioned to meet the needs of the wood products industry and to help mitigate climate change if appropriate management actions are taken.

“Natural climate solutions” is the term used today to describe the forestry sector’s path forward. These include management actions such as conservation, restoration, and/or improved land management that increases carbon storage and/or avoids greenhouse gas emissions across global forests, wetlands, grasslands, and agricultural lands.§

Sappi recently participated in the Forest Solutions Group of the World Business Council for Sustainable Development, which released its first Forest Sector Net-Zero Roadmap report, Enabling the transition to a net-zero economy, at COP26. The report calls on policymakers, investors, and forest product customers to leverage the potential of sustainable working forests and their products in the transition to a net-zero economy.

Sarah Price, Sustainability Manager for Sappi Europe, who is actively engaged in the Forest Solutions Group effort, participated in a COP26 panel that highlighted the need for working forests to serve as natural climate solutions.

Sappi is committed to addressing SDG 13, and this story speaks to the mitigation of GHG emissions through working forests. On page 52, we describe how we are positioning ourselves to be more resilient to a changing climate, using the framework created by the Task Force for Climate-Related Financial Disclosures.


† C. W. Woodall and A. R. Weiskittel, “Relative density of United States forests has shifted to higher levels over last two decades with important implications for future dynamics,” Nature, 11, no. 18848 (2021), https://doi.org/10.1038/s41598-021-98244-x.

Change in US forest density

Change in forest density values (low, medium, and high) over time. Values shown are percentages of high density.

1999–2012

2013–2020

- **Low** (below full canopy closure thresholds)
- **Medium** (achieves full canopy closure or exclusion of new trees while minimizing self-thinning mortality)
- **High** (imminent self-thinning mortality)
Cloquet earns high score on Higg FEM audit for sound environmental practices

**UNSDG 12**

Sappi marks another milestone in sustainability, as our Cloquet Mill is one of the first dissolving pulp facilities to complete an external environmental management verification process.

The mill achieved an impressive final overall score of 84% on the Sustainable Apparel Coalition’s (SAC’s) Higg Facility Environmental Module verification audit, which is an endorsement of sound environmental practices employed by our Cloquet Mill. The facility produces dissolving pulp sold under the brand name Verve.

“As a global leader in dissolving pulp manufacturing, we are excited about the SAC Higg FEM results for our Verve product,” says Tom Radovich, Managing Director of Sappi North America’s Cloquet Mill.

“The Cloquet Mill has always been highly committed to SNA’s environmental stewardship and sustainability initiatives, and we will continue to look for innovative ways to strengthen our position.”

Our Cloquet Mill also received a verified score of 100% across energy, water, and wastewater management, highlighting the mill as a pocket of excellence in resource efficiency and emissions control. Performance in this industry benchmarking program provides additional assurance to our customers and value chain partners that Verve is a fiber of choice.

Supporting the call to accelerate transparency in the textile and apparel sector, a detailed performance report will be made available to all key stakeholders on request.

Developed by the SAC, the Higg FEM is part of a suite of tools that enables manufacturing facilities of all sizes to measure and score their environmental performance against a standard set of criteria, allowing for meaningful and credible performance benchmarking in the apparel and textile sector.

Across topics such as water use, carbon emissions, and labor conditions, the Higg Index can be used to inform consumer brands, retailers, manufacturers, governments, NGOs, and consumers about manufacturers’ individual sustainability strategies to drive collective industry transformation.

To learn more about Sappi’s dissolving pulp business, visit sappi.com.
Sappi Verve Partners with Birla Cellulose to provide forest-to-garment traceability

UNSDG 17

Sappi Verve has partnered with Birla Cellulose, one of the leading viscose manufacturers in the textile value chain, to provide a forest-to-garment traceability solution for brand owners. Through this collaborative partnership, Sappi Verve, a world market leader in dissolving pulp, continues to strengthen its sustainability credentials within the textile industry.

“This collaboration is part of Sappi’s vision as a sustainable woodfiber business to provide relevant solutions and deliver enhanced value as a trusted partner to all its stakeholders,” says Krelyne Andrew, Sustainability General Manager for Sappi Verve.

Traceable and transparent supply chains are key to providing brand owners and consumers with the assurance and confidence that their products originate from sustainable and renewable sources of wood, free from deforestation, where biodiversity is promoted and where the customary, traditional, and civil rights of people are upheld. This collaboration allows for sustainability-focused consumers, brand owners, and retailers who make more informed buying decisions.

The efforts have been recognized by Forbes magazine’s “Blockchain 50” list, which features companies that lead in employing distributed ledger technology and have revenue or a valuation of at least $1 billion. Twenty-one newcomers, including Sappi, are recognized for 2021.

To provide this brand-owner traceability solution, Sappi coupled its comprehensive database on wood origin for its dissolving pulp operations in South Africa and the United States with the use of Birla’s pioneering GreenTrack™ blockchain technology.

Blockchain is a system that employs distributed ledger technology to record, duplicate, and distribute information to an entire network of computer systems, which then makes it difficult or impossible to change, hack, or cheat the system. Birla Cellulose, along with its value chain partners, provides transparency on a “live” basis for the entire journey of cellulose, from a well-certified forest to the consumer’s hands.

More than 250 supply chain partners, including Walmart and Marks & Spencer, now use GreenTrack to verify the sustainability of the apparel they sell.
Evaporator flushing creates significant water savings and energy efficiency at Cloquet Mill

UNSDG 12

Focused on a Thrive25 sustainability goal to reduce energy use, Sappi North America has also successfully reduced water and steam use at the Cloquet Mill.

Sappi’s Thrive25 sustainability goal seeks to reduce total specific energy use by 1% annually for five years. The Cloquet project resulted in saving over 2 million gallons of water and 3.2 million pounds of steam; it also increased production through increased black liquor firing, all of which exceeded the 1%-a-year energy reduction goal.

The Cloquet Mill initiated a Rapid Lean Six Sigma energy project to target TUBEL super-concentrator evaporator flush reduction.

The goal of the TUBEL flushing project was to reduce the flush water volume by 25%, ultimately reducing the amount of energy needed to reprocess the flush water by 25%. The team reevaluated flushing techniques, triggers, durations, and sources of water. Ultimately, the project established new flushing operational parameters, implemented best practices for flushing duration, and achieved over double the initially planned savings.

These types of energy reductions can be achieved in several ways, including capital investment, operational efficiency improvements, and targeted continuous improvement projects, such as Cloquet’s successful Rapid Lean Six Sigma project.

Water reduction drives energy efficiency
(monthly average gallons of water)

<table>
<thead>
<tr>
<th></th>
<th>FY20 Baseline</th>
<th>FY21 Q1</th>
<th>FY21 Q2</th>
<th>FY21 Q3</th>
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<td>Days between Flashes</td>
<td>4.6</td>
<td>3.3</td>
<td>3.8</td>
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<td>Flush Water Generated</td>
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<td>418,553</td>
<td>219,416</td>
<td>148,532</td>
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<td>Water Used</td>
<td>403,794</td>
<td>289,923</td>
<td>148,532</td>
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</table>
Somerset Mill reduces solid waste to landfill, improves emissions control

UNSDG 12

Working toward a major sustainability goal, Sappi North America has successfully reduced the amount of specific landfilled solid waste from our Somerset Mill and improved the mill’s boiler stability and emissions control.

Wastewater treatment sludge at the Somerset Mill contributes to the amount of specific landfilled solid waste created by mill operations. This sludge is typically burned as fuel, but at times of nonoptimal running, it must be placed in landfill. SNA chartered a Lean Six Sigma project team to minimize sludge that moves to landfill and to maximize the fuel value of that sludge.

By reviewing how the sludge moves through the mill systems, the team identified periods in which the feed of sludge was disrupted or fully stopped.

Using Lean Six Sigma DMAIC (define, measure, analyze, improve, and control) techniques, the team isolated factors contributing to the stoppage and improved the uptime of the sludge feed from a baseline of 90% to over 98%.

These changes have also allowed the mill to achieve significant improvements in boiler stability and emissions control.

In addition, the team partnered with suppliers and developed training for operators to improve the solids content of the sludge, which then improved its burn efficiency. Together, these efforts have increased sludge burn rate and lowered sludge volumes going to landfill by over 30%.

**Burn rate of wastewater sludge**

(percent of burnable sludge burned; target = 80%)

<table>
<thead>
<tr>
<th>Year</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
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<td>72.3%</td>
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<td>73.4%</td>
<td>79.1%</td>
<td>60.2%</td>
<td>66.4%</td>
<td>83.6%</td>
<td>63.1%</td>
<td>69.5%</td>
<td>90.7%</td>
<td>65.8%</td>
<td>84.1%</td>
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<tr>
<td>2019</td>
<td>71.8%</td>
<td>77.2%</td>
<td>73.4%</td>
<td>79.1%</td>
<td>60.2%</td>
<td>66.4%</td>
<td>83.6%</td>
<td>63.1%</td>
<td>69.5%</td>
<td>90.7%</td>
<td>65.8%</td>
<td>84.1%</td>
</tr>
<tr>
<td>2020</td>
<td>72.3%</td>
<td>77.2%</td>
<td>73.4%</td>
<td>79.1%</td>
<td>60.2%</td>
<td>66.4%</td>
<td>83.6%</td>
<td>63.1%</td>
<td>69.5%</td>
<td>90.7%</td>
<td>65.8%</td>
<td>84.1%</td>
</tr>
<tr>
<td>FY 2021</td>
<td>90.7%</td>
<td>93.6%</td>
<td>91.9%</td>
<td>93.3%</td>
<td>80%</td>
<td>80%</td>
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<td>80%</td>
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</tr>
</tbody>
</table>

FY 2021
Which is better—fresh or recycled fiber?

Ever wonder why we still use fresh fiber to make paper, especially since paper products are already so widely recycled? Well, that’s because fresh fiber is a necessary ingredient to keep recycled paper in the loop.

People recycle paper more than plastic, metal, and glass, giving it a recycling rate averaging 70% across the US and EU. Lab studies show it can be recycled up to 20 times, depending on targeted application.

The answer: both!

**UNSDG 12  UNSDG 15**

The benefits of recycling paper in a circular economy are encouraging and exciting. It conserves natural resources, saves energy, reduces greenhouse gas emissions, and keeps material out of landfills. And when it comes to printing and packaging, paper is the most sustainable choice. We make it from one of Earth’s most renewable materials: woodfiber.

People recycle paper more than plastic, metal, and glass, giving it a recycling rate averaging 70% across the US and EU. Lab studies show it can be recycled up to 20 times, depending on targeted application.

So which is better—fresh or recycled fiber?

Actually, both are needed, depending on use. Fresh fiber is best for high-quality paper with the brightest colors and the best image reproduction for premium applications like marketing, advertising, and publishing.

Our paperboard benefits from the strength and bulk that only fresh fibers provide. Relying on fresh fibers also supports product safety and complements our ability to provide products suitable for food contact.

But to keep the paper cycle moving, fresh fiber is not only necessary; it’s the catalyst. Fresh fiber is needed to sustain recycled paper in the production loop.

It’s important to remember that using recycled or “recovered” fiber in higher-quality products requires more processing, which increases fiber loss and demands greater use of energy, water, and chemicals. As paper gets recycled and processed, the fibers degrade, making them better...
suited for downstream products like cardboard and office paper, and then, finally, newsprint and tissue. Recycled content is better in grades such as corrugated because there are no requirements for brightness levels, and contaminants in the recycled content can be better tolerated. It’s also better for applications that cannot be recovered, such as tissue.

If you seek a positive environmental outcome, choosing when to use fresh or recycled material for your products requires careful consideration. With demand for paper products greater than the availability of recycled materials, it’s important to use recycled material where it delivers optimum environmental impact and where its quality matches the application’s requirements.

In our North American and European mills, we rely on fresh fibers because we make high-quality paper and board products. Our diverse product portfolio offers high performance with respect to print surface, brightness, and durability.

When we use fresh fibers at Sappi, we ensure it comes from responsibly managed forests, and we strive to use woodfiber from certified forests that are subject to third-party audits. The result of this sustainable management is that forested lands are actually expanding rather than diminishing.

It’s crucial that the fresh fiber you choose is sourced from well-managed forests that are responsibly tended, harvested, and regenerated for healthy regrowth. Despite their differences, a more sustainable future depends on both fresh and recycled fibers.

1. **Fresh fiber**
   - Fresh fiber is the catalyst of the paper and paperboard lifecycle. Fresh fiber-based products are recyclable and have high collection rates.

2. **Printing and writing**
   - Fresh-fiber pulp is best for high-grade, highly recycled products. If you use recycled fiber for these products, it requires more processing and energy, and results in more fiber waste.

3. **Office paper and high-end paperboard**
   - In this broad range of products, the optimal mix of fresh and recycled fibers will vary.

4. **Corrugate, containerboard, and newsprint**
   - These lower-grade products can be made with predominantly recycled fiber and still meet all performance requirements.

5. **Tissue paper, paper towel, and toilet paper**
   - Products like these come at the end of the paper cycle and cannot be further recycled.

IN SUMMARY

The following three principles are important to consider when thinking about fresh and recycled fiber:

- **Closing the loop requires both:** fresh and recycled fibers working together to keep paper flowing in a circular loop.

- **The paper application matters:** optimizing the life of recovered fibers requires use in the right applications.

- **Downcycling is decisive:** the input of fresh fiber into the paper loop should be with high-quality applications that can subsequently be downcycled into other applications.
After Sappi completed the extensive rebuild of Paper Machine 1 at the Somerset Mill to expand into the packaging business, we wanted to celebrate the engineering feat and showcase Spectro, our premium line of paperboard, in an equally impressive way. Spectro, produced on the state-of-the-art PM1 at Somerset, offers superior printability, foldability, and dimensional stability. To introduce the new brand to the market, Sappi selected a dynamic pop-up book format that delights readers with an interactive experience detailing Spectro’s ability to accommodate a wide variety of printing techniques, folding, and die-cutting.

“The Spectro pop-up book represents Sappi’s state-of-the-art PM1 in the most compelling way and showcases the many attributes it gives to our new premium line of paperboard,” says Patti Groh, SNA Director of Communications. “We wanted to show customers how our paperboard products can replace a variety of plastic packaging applications, and we wanted to do it in a format that people would keep and share. The pop-up book is dimensional and tactile, and it features little surprises that give our customers the ultimate haptic experience.”

Constructed by Structural Graphics, the incredibly complex book not only sells the emotional value of paper, but it also tells the story of Spectro’s sustainable lifecycle, demonstrates our commitment to active forest management, and conveys how Sappi is doing the most with trees to design a better future for all.

More customers believe in the power of materials from nature, and they want to make earth-conscious choices. With the Spectro pop-up book, we had an opportunity to demonstrate that Spectro’s eco-positivity does not sacrifice performance, but actually goes hand in hand with it.

“To drive awareness and preference for Spectro among print buyers, this dynamic pop-up book tells the story of Spectro’s sustainable lifecycle,” Patti says. “The storybook format highlights to customers our active forest management process and communicates our commitment to leaving forests better than when we found them. The truth is, as we say in the book, we never really leave them.”
Prosperity

For Sappi, investing in our facilities, our technologies, and our partnerships is how we build a thriving world. The resources we use to bring new and exciting innovations to the industry utilize the power of trees to bring us closer to building a more circular economy for generations to come.
2021 delivers strong financial performance at SNA

UNSDG 8

Following a historically challenging fiscal 2020, the Sappi group returned to profitability in fiscal 2021, with all regions experiencing recovery. The group reported earnings before interest, taxes, depreciation, and amortization (EBITDA) of $532 million (10% of sales), up from $378 million (8% of sales) last year, while SNA improved with EBITDA of $209 million (12% of sales), up from $79 million (6% of sales).

SNA's EBITDA increase had a direct impact on return on net operating assets (RONOA), which increased from 2.4% to 8.1%. The RONOA growth demonstrates that we have successfully diversified and transformed our business by making strategically sound investments and then delivering returns on those investments.

The rebuild of PM1 at our Somerset Mill as an entry into the paperboard market, the acquisition of the pulp mill in Matane, Quebec, for additional fiber integration, and the debottlenecking of the pulp mill in Cloquet, Minnesota, for dissolving pulp growth all contributed to financial success in fiscal 2021.

For the year, SNA delivered its strongest financial performance in more than a decade. Margins expanded across all of our businesses, driven by strong market demand, a series of successful price increases, and mix optimization across our assets, which ran full the entire year. We adapted quickly to changing market conditions and were able to mitigate supply chain challenges and inflationary pressures that continued to accelerate throughout the year.

Our packaging and specialities business continued to grow in fiscal 2021, driven by increasing demand for our paperboard and LusterCote products, as well as a rebound in release Ultracast, which had been heavily impacted by the pandemic last year. Our asset flexibility allowed us to shift more production capacity from the graphic papers business to meet this demand. Despite the continued decline in the overall graphic papers market, we remain steadfastly committed to our graphic papers business and to our customers who value print; graphic papers remained a key profit contributor, driven by strong mix management and price realization. Improved pricing was also key to our pulp business results in fiscal 2021, as selling prices reached levels not seen in years as global pulp markets recovered from the lows of 2020.

Looking ahead to 2022

As we look to 2022 and beyond, we are confident that we are well positioned for future prosperity and that our strong financial performance will continue. We remain relentlessly focused on commercial and operational excellence, maximizing the returns on the strategic investments we have already made and identifying new, high-return initiatives.

“The financial performance of the past few years demonstrates the strength and resilience of our strategic vision and the entire SNA organization,” says Annette Luchene, Vice President and Chief Financial Officer. “We have successfully transformed our business by making sound, strategic investments and operating with excellence in all we do. It’s critical we build on the current momentum, remain focused on Sappi’s Thrive25 strategy, and deliver to our full potential.”

Annette Luchene, Vice President and Chief Financial Officer, Sappi North America
When Sappi made a strategic investment in excess of $200 million to expand into the packaging business at our Somerset Mill in Skowhegan, Maine, we had already anticipated a strong market desire to move away from plastic and toward renewable, paper-based packaging.

Then the COVID crisis struck. While no one could have predicted the pandemic, the decision to extensively rebuild Paper Machine 1 (PM1) at Somerset had positioned Sappi to meet the sharp increase in demand for high-quality paperboard. As some competitors shuttered their mills, SNA’s diversification into packaging kept our paper machines operating.

“Innovation at Sappi is all about anticipating market needs—trying to forecast where the market need might be and then making sure we have those products in the pipeline,” says Heather Pelletier, Director of Research and Development. “The rebuild of Paper Machine 1 could not have been better timed based on the market demands for renewable, paper-based packaging.”

Sappi started the newly rebuilt PM1 in June 2018, and in just 26 months, the Somerset Mill had ramped up from producing zero tons of paperboard to over 300,000 tons a year of high-quality paperboard for folding carton, food service, and commercial printing applications. The mill generated record sales volumes and EBITDA in 2021 while achieving the full run rate.

“Our packaging looks great on the shelf and performs extremely well in downstream converting processes while being the lightest SBS in the market,” says Deece Hannigan, Vice President of Graphics, Packaging and Specialties. “This saves costs for both our customers and for Sappi.”

Increased sustainability efforts have also added to the efficiency and profitability at Somerset.

“We have invested significantly in the Somerset Mill over the last 10 years, which has resulted in higher efficiencies, less waste, the diversification of our business, and a lower carbon footprint,” Deece says.

Those investments include converting the mill in 2014 to run at full capacity on natural gas instead of oil, which reduced energy costs and decreased carbon emissions. The conversion significantly reduced the use of oil in the mill’s lime kiln and power boiler, and it decreased the ash-disposal quantities handled by environmental equipment.
Continuous improvement is part of Sappi’s DNA, and lean-business and Six Sigma principles have helped us capture significant operational advantages. However, to sustainably reach higher levels of quality, lower-cost operations, and increased throughput, we need to develop new capabilities to tackle bigger problems faster. Advanced analytics tools differentiate organizations by providing insight that is not obvious in highly complex processes. Through predictive modeling, this insight allows for incremental—as well as breakthrough—levels of improvement. Sappi is chartering advanced analytics teams to train and deploy more sophisticated methodologies as part of our global digital transformation efforts.

What’s all this talk of big data?

Sappi is using several tools to drive the advanced analytics and predictive modeling roadmap. “Big data” is nothing more than using more data in more sophisticated ways with advanced software designed to see patterns more clearly and quickly. Standard process data capture tools are used to create a digital representation of the process’s current state. This provides real-time data from critical control points in the process.

Data is then fed to a separate operating tool to build a virtual process twin to create a graphical analysis of variables, which allows for the evaluation of variable relationships. In this manner, the variables that are most significant to drive the desired response are identified. Removing insignificant variables helps prevent model “overfitting,” a form of error that produces untrustworthy results.

These virtual twins are time-sequenced replications of our processes that allow us to evaluate how events in the past affect current performance. But it doesn’t stop there. Additional predictive software, using powerful algorithms, is used to help make more visible the key variables that contribute to unwanted variations. These variations often turn into quality and cost excursions. Seen early enough, these data flags can be used to help predict the performance of our processes and allow adjustments before impact to final quality.

“Using a structured approach to advanced analytics is a data-driven approach to discovering trends and patterns, predicting future states, and solving problems so that we can operate at levels not previously possible,” says Nathan Jones, SNA Director of Lean Six Sigma and Advanced Analytics.
Valida provides natural, renewable, environmentally friendly protection for fruit trees

Sappi’s never-ending quest to find new ways to extract value from trees has resulted in unique applications for our Valida line of products, ranging from Sappi’s own papermaking to foods and cosmetics, and even as an additive in concrete.

Now Sappi has found another novel application for Valida: protecting fruit tree buds from frost damage.

The US produces more than 15 million tons of deciduous fruit crops, including cherries, peaches, and apples, valued at more than $11 billion annually. Frost damage happens in the early spring, when the fruit buds are just starting to form—a sudden drop in overnight temperature can cause significant damage.

By spraying the trees with a thin layer of Valida, the buds are protected from sporadic temperature drops and potential frost damage. After the buds are more developed and temperatures rise, the natural-cellulose Valida can be harmlessly washed away.

Use of natural, renewable Valida represents a more environmentally friendly method for controlling temperature exposure for farmers.

Valida products are micro- and nanofibrillated cellulose that are manufactured in the Sappi pilot facility in the Netherlands. Valida is made by further processing the cellulose fibers that are commonly used in paper, breaking them down into even smaller components.

The resultant natural material is a pulp that has unique strength and flow properties with the consistency of peanut butter; apply some shear to help the pulp flow.

Sappi collaborated with Washington State University, which developed the spray formula using Valida and conducted a trial in a commercial fruit orchard. The initial work proved successful when the Valida-coated trees showed increased yields per acre compared with uncoated trees.

As a result of this promising work, Dr. Qi Wang, SNA Technology Platform Director, applied for funding from the US Endowment for Forestry and Communities, and Sappi was awarded a development grant to continue the work.

Sappi partners with EcoVadis to assess suppliers’ sustainability performance

UNSDG 17

Sappi Limited has partnered with EcoVadis, a global leader in third-party evaluations of business sustainability performance, to benchmark and assess the sustainability practices of Sappi’s suppliers and encourage their commitment to the United Nations Sustainable Development Goals.

“Sappi’s purpose is to build a thriving world by unlocking the power of renewable resources to benefit people, communities, and the planet,” says Tracy Wessels, General Manager, Group Head of Sustainability, Sappi Limited.

“By working together in partnership with EcoVadis and our valued suppliers, we can better identify risk, assess social and environmental performance, and encourage commitment to sustainable choices and the Sustainable Development Goals throughout our value chain,” Tracy says. “This partnership reinforces the expectations we set out in our supplier code of conduct and provides a platform to build transparency and collaborate.”

The EcoVadis methodology focuses on 21 sustainability criteria that are grouped into four categories: environment, labor and human rights, ethics, and sustainable procurement. These criteria align with international sustainability standards.

EcoVadis’s actionable sustainability scorecards provide detailed insight into environmental, social, and ethical risks across 200 purchasing categories and 160 countries. More than 75,000 businesses are on the EcoVadis network, all working with a single methodology to evaluate, collaborate, and improve sustainability performance to protect their brands, foster transparency, innovate, and accelerate growth.

“We are extremely pleased to work with Sappi, a multinational company demonstrating their leadership and expanding their sustainability commitments by engaging their value chain in the sustainability performance improvement journey,” says Emily Rakowski, CMO of EcoVadis. “Having undergone the rating process themselves in all three of their regional entities and achieving Platinum-level performance, Sappi is setting a great example for their suppliers to follow.”
Strong relationships lead to better sustainability in procurement process

**UNSDG 17**

A good, sustainable procurement strategy depends on strong relationships with suppliers, and Sappi is committed to building those relationships to improve Sappi’s and our suppliers’ sustainability performance, including reductions in greenhouse gas emissions.

Sappi’s procurement process is more than just purchasing materials or services; it’s a way to facilitate trust and collaboration and to share best practices with those companies that support our vision for a more renewable and responsible world through commercially viable and sustainable solutions. Because 49%* of our Scope 3 emissions come from purchased goods, we recognize that our procurement choices can have an impact on economic, environmental, and social influences in the communities where we operate and beyond.

We are committed to an open and honest dialogue, and we actively seek collaboration and communication with suppliers who believe in and commit to our Sappi Supplier Code of Conduct. Our goal is an 80% share of procurement spend by 2025 with suppliers who agree to comply with this code. These suppliers then become key partners and play a role in helping realize Sappi’s mission, values, and principles.

“Not only do suppliers sell us their materials and services, but we also gain insight into their best practices, which then helps us expand our sustainable footprint,” says Manoj Sujanani, SNA Chief Procurement Officer. “It’s going to be a natural part of what procurement does. It’s a way to engage, collaborate, and develop trust. We ask our suppliers to bring us your best ideas. The momentum has continued to build on this type of communication.”

In 2021, our efforts to effectively communicate this message with our suppliers resulted in a 53% share of supplier spend that included commitment to our supplier code of conduct, which surpassed our 2021 target of 50%.

Our engagement with EcoVadis, the world’s largest and most trusted provider of business sustainability ratings, reinforces our supplier code of conduct by giving us more insight into our suppliers’ responsible business practices and sustainability performance. EcoVadis assesses companies in four categories: environment, labor and human rights, ethics, and sustainable procurement. The results can be integrated into our sourcing and supplier-review processes to help improve our procurement decisions.

While many large suppliers are in compliance with Sappi’s supplier code of conduct, some smaller suppliers are still learning how they can add value to their sustainability performance. Sappi’s collaborative procurement process can assist in showing them how they can learn best practices and contribute to sustainability.

“We fully incorporate Sappi’s Thrive25 sustainability principles in all of our procurement practices and actively promote sharing, mutual learning, and implementation of these principles with all our value chain constituents,” Manoj says. “There should be no question among these parties regarding how much we value the role sustainability practices are going to play in our current and future business.”

* Excluding end-of-life and customer processing.
At the group level, Sappi has made significant progress to mitigate greenhouse gas emissions by identifying projects that will decarbonize our operations in each region over the next five years.

We also made significant progress in assessing our resiliency to physical risk, transitional risks, and opportunities resulting from climate change, as framed by the Task Force on Climate-Related Financial Disclosures (TCFD).

The TCFD framework was developed “to help public companies and other organizations more effectively disclose climate-related risks and opportunities through their existing reporting processes.”

We believe climate change will have an unavoidable effect on our business in the form of transitional, reputational, and physical impacts. Over the past year, we undertook a global initiative that focused on our primary assets. This included 18 of our mills covering all three regions, as well as all of Sappi’s plantations in South Africa.

We worked with outside consultancy S&P Global and the University of the Witwatersrand’s Global Change Institute to help us establish long-term climate change trends and implications through 2050, primarily for South Africa. Due to the nature of our operations, which are mostly capital-intensive assets that are not easily relocated, we adopted a conservative view on physical climate projections, aligning with Representative Concentration Pathway (RCP) 8.5, which assumes a worst-case future climate scenario.

Over 60 employees participated in the initiative. Operational risk teams from each region documented past climatic events, costs, and mitigation strategies to more fully understand the physical and transitional risks of climate change. We made very good progress in assessing how we can embed climate change into our risk-register methods, thereby improving our overall approach to risk.

Beyond assessing our climate-related risks and opportunities as noted in the “strategy” core element in the figure, we are updating our governance, risk-management processes, metrics, and targets. At the group level, we have identified climate change as a top 10 risk that underpins all four key fundamentals of our business strategy. More information can be found in our 2021 Annual Integrated Report and 2021 Sappi Group Sustainability Report.

Every year we survey our performance in important areas of environmental and social responsibility by monitoring key metrics for energy use, emissions, water use, solid waste, finances, our workforce diversity, and forestry. Closely monitoring these indicators shows us the areas in which we thrive and where we can continue improving.
Energy use

RENEWABLE ENERGY

Renewable energy is the dominant source of energy at our four SNA mills. Our total on-site renewable energy use is 70.53% with an additional 10.13% of renewable and nuclear energy as part of our purchased power for a total of 80.66%. This number is adjusted to remove the renewable energy associated with renewable energy credit sales.

In 2021, our renewable energy use was composed of 65.9% black liquor, 31.9% biomass, 0.4% on-site hydro, 0.7% biogas, and 1.1% wastewater treatment plant sludge. Additionally, purchased renewable power was 10.13% of our total energy use. We will continue to benefit from the commitments of our regions to increase the amount of renewable energy in the market.

Other sources of energy we use are alternative and fossil fuels. Alternative fuels are waste that is repurposed instead of disposed of or landfilled; they are primarily tire-derived fuel. Fossil fuels predominantly include the use of natural gas, but also some coal and fuel oil. With the retirement of PM9 and the majority of the energy complex at the Westbrook Mill, we no longer use coal at any SNA location.

2021 Sappi North America total energy

- 70.53% Renewable
- 0.03% Coal
- 2.99% Tire-Derived Fuel
- 1.02% Fuel Oil
- 11.51% Natural Gas
- 0.23% Transport Fuels
- 10.13% Renewable and Nuclear
- 13.69% Purchased Electricity
- 3.56% Nonrenewable

SNA SUSTAINABILITY COUNCIL MILL LEADS

Fred Gagnon
Technical Superintendent
Matane Mill

Micki Meggison
Continuous Improvement Black Belt
Westbrook Mill

Rob Schilling
Environmental Manager
Cloquet Mill

Chuck Qualey
Senior Engineer
Somerset Mill
2021 Cloquet Mill total energy

- 81.2% Renewable
- 0.1% Fuel Oil
- 15.5% Natural Gas
- 0.2% Transport Fuels
- 1.3% Renewable and Nuclear
- 3.0% Purchased Electricity
- 1.7% Nonrenewable

2021 Somerset Mill total energy

- 69.0% Renewable
- 5.9% Tire-Derived Fuel
- 1.1% Fuel Oil
- 8.5% Natural Gas
- 0.3% Transport Fuels
- 10.1% Renewable and Nuclear
- 15.3% Purchased Electricity
- 5.2% Nonrenewable

2021 Westbrook Mill total energy

- 42.8% Renewable
- 1.5% Coal
- 6.4% Fuel Oil
- 30.9% Natural Gas
- 0.5% Transport Fuels
- 17.9% Purchased Electricity
- 8.8% Renewable and Nuclear
- 9.1% Nonrenewable

2021 Matane Mill total energy

- 9.3% Renewable
- 5.8% Fuel Oil
- 0.3% Transport Fuels
- 84.7% Purchased Renewable
- 3.0% Purchased Electricity
- 5.2% Nonrenewable
Emissions

**UNSDG 12 UNSDG 13**

Specific nitrogen oxide emissions were positively influenced, much like GHG emissions, by improved operating efficiencies and the Westbrook Mill reconfiguration.

A significant improvement was seen in specific sulfur dioxide emissions for 2021, resulting from improved noncondensable gas incinerator uptime at Cloquet, reduced turpentine burning at Somerset, and the elimination of coal firing at Westbrook. Specific particulate emissions were relatively unchanged year over year.

### 2021 GHG emissions by mill (1k ton CO₂e)

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</tbody>
</table>

**The results reflect the size of the operations, as well as the renewable mix noted in the doughnut charts on page 55.**

* Direct GHG emissions—emissions from sources that the company owns or controls
† Indirect GHG emissions—emissions associated with the generation of purchased electricity, steam, or heat

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**SO₂ emissions (kg/mt)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx</td>
<td>0.80</td>
<td>0.75</td>
<td>0.62</td>
<td>0.87</td>
<td>0.46</td>
</tr>
</tbody>
</table>

**NOₓ emissions (kg/mt)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO₂</td>
<td>0.37</td>
<td>0.36</td>
<td>0.28</td>
<td>0.34</td>
<td>0.35</td>
</tr>
</tbody>
</table>

**Particulate emissions (kg/mt)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOx</td>
<td>2.50</td>
<td>2.43</td>
<td>1.94</td>
<td>1.99</td>
<td>1.69</td>
</tr>
</tbody>
</table>
Sappi adds transparency and partnerships to GHG/Scope 3 tracking

**UNSDG 13**

Since Sappi reported Scope 3 emissions in our SNA sustainability report for the first time last year, we have continued to focus on tracking these emissions. We follow the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard, also referred to as the Scope 3 Standard, to do this calculation. As a result, we have further refined our calculation.

The GHG Protocol divides Scope 3 emissions into 15 categories, and it is up to the reporting entity to determine which are significant for its operation. These categories fall into two main streams: upstream (1–8) and downstream (9–15). In this case, “upstream” refers to emissions that occur before customers take ownership of Sappi’s products, whereas “downstream” includes emissions resulting from customers processing Sappi products and the final end-of-life treatment of the goods that Sappi’s customers produce.

In general, Scopes 1, 2, and upstream 3 are how our customers view and evaluate Sappi, whereas the combination of Scopes 1, 2, and 3—both upstream and downstream—is how the world evaluates the entire value chain.

Based on our review, we have concluded that due to the lack of control and the nature of the emissions of category 10 (processing of sold products) and category 12 (end-of-life treatment), we will no longer attempt to track those emissions. We had already made that decision for category 11, which is the use of sold products. Thus, downstream emissions (categories 9–15) are irrelevant and not being tracked.

Also noted last year, much of the Scope 3 data is based on standard secondary emissions factors from publicly available databases, primarily the UK Department for Environment, Food and Rural Affairs (DEFRA), the US Environmental Protection Agency, and ecoinvent, a nonprofit association that provides process data for products. Primary emissions factors are always preferred, as they are more accurate. We remain committed to obtaining the most accurate emissions factors whenever possible from our suppliers and customers.

As shown in the doughnut chart, the three most significant categories for Sappi are purchased goods (category 1), fuel- and energy-related activities (category 3), and upstream transport (category 4). These comprise approximately 98% of Scope 3 upstream emissions, based on data collected for fiscal 2021.
Our North American mills draw water from surface sources (rivers and lakes) and return treated water to the same primary sources. As we do with our emissions, we manage our use and discharge of water in accordance with comprehensive environmental permits.

Our specific process water intake and discharge dropped significantly compared with last year. This was impacted positively by a return to normal operations and improved operational efficiency.

Specific biological oxygen demand in our final effluents was down significantly from 2020, mostly attributable to improved performance at Cloquet.

Specific total suspended solids were significantly reduced compared with the previous year. (See bar charts.) The reconfiguration of the Westbrook Mill and return to normal operation at Cloquet, which had significant clarifier downtime in 2020, drove the results.
Solid waste

UNSDG 12

The efficient use of raw materials improves front-end cost savings, reduces environmental impact, and lowers costs associated with waste processing. Tracking raw material waste in our pulp and paper mills is a way to improve our use of raw materials.

The 2019 Matane Mill addition increased our pulp mill waste levels. Lean Six Sigma projects have been deployed to improve efficiency. That work, as well as fully operational mills, explains the improvement we have seen over the last three years across our combined pulp and paper operations.
The following charts provide a snapshot of the makeup of our workforce. As many of our seasoned colleagues retire, we are committed to building a robust pipeline of talented employees who bring a rich mix of skills, experiences, and backgrounds.

Mellissa Johnson
Manager, Compensation and Employment

**UNSDG 8**

Percent of employee turnover (10.7%) by reason

- 6.0% Retrenchment
- 48.5% Terminations (Voluntary and Involuntary)
- 45.5% Retirement

Percentage of employees covered by collective bargaining agreements

- 64.75% Union
- 35.25% Nonunion

Average hours of training per year per employee by gender

- Female: 56.47
- Male: 74.06
- Not Disclosed: 23.59

Sappi North America age demographic

- 8.6% <30
- 39.7% 30–50
- 51.7% 50+

Sappi North America workforce by gender

- Executive: 57.1% Female, 42.9% Male
- Senior Management: 17.4% Female, 82.6% Male
- Management: 22.1% Female, 77.3% Male
- Professional/Supervisor: 27.2% Female, 72.8% Male
- Administrative/Other: 49.6% Female, 49.6% Male
- 8.1% Female, 91.7% Male
- Union: 15.5% Female, 84.3% Male
- Not Disclosed: 0.1% Female, 0.1% Male

Sappi North America
Finance

UNSDG 8

Earnings before interest, taxes, depreciation, and amortization (EBITDA) is a standard measure of profitability and financial performance. SNA uses EBITDA expressed as a percentage of sales as one of our key metrics to measure success.

In fiscal 2021, our EBITDA margin was 12.4% as we rebounded from the historically challenging 2020 and delivered our strongest financial performance since 2011. Margins expanded across all our businesses, mainly driven by strong market demand, a series of successful price increases, and mix optimization across our assets, which ran full the entire year. Consistent with our transformation strategy, our packaging and specialties business continued to grow, and we shifted more production capacity from the graphics business to meet growing demand. Graphics remained a key profit contributor, driven by strong mix management and price realization, despite the continued decline in the overall graphics market. Selling prices in our pulp business reached levels not seen in years as global pulp markets recovered from the lows of 2020.

Development portfolio

The chart on this page shows the trend in the number of research-and-development and continuous improvement projects with defined sustainability benefits during 2020 and 2021. Focusing on projects with defined sustainable benefits will ensure we meet our new product launch goals and the demands of our customers.

To determine if a project meets this KPI, we used the Sustainable Packaging Coalition’s definition of sustainability and derived the following list of sustainability attributes for the given product:

- Is beneficial, safe, and healthy for individuals and communities throughout its lifecycle
- Meets market criteria for performance and cost
- Optimizes the use of renewable or recycled source materials and energy
- Is manufactured using clean production technologies and best practices
- Is effectively recovered and utilized in biological or industrial closed-loop cycles
UNSDG 15

One hundred percent of SNA’s woodfiber inputs originate from controlled, noncontroversial sources from well-managed forests, in compliance with all applicable laws and due diligence system requirements in the FSC, PEFC, and SFI standards. Our rigorous due diligence system and tracing practices to confirm the origin of wood involve gathering information, and assessing and mitigating risk.

- Within the US, our fiber is sourced from areas considered low risk across all five risk categories addressed in the FSC US Controlled Wood National Risk Assessment; therefore, no additional control measures are necessary.

- In Canada, we source from areas with a mix of low and specified risk per FSC’s Canada National Risk Assessment. Accordingly, control measures are in place to avoid and mitigate the risk of controversial sources during our operations and those of our suppliers.

The SFI Fiber Sourcing Standard (in the US)* goes beyond avoidance of controversial sources and requires landowner outreach, use of qualified resource/logging professionals, investments in forest research, conservation of biodiversity, and adherence to best management practices during harvesting operations. Sappi works in regions with well-developed legal frameworks and strongly ingrained conservation mindsets governing ethical natural resource management.

Sappi transparently and proactively provides customers and stakeholders with data pertaining to the tree species and countries of origin for the woodfiber used in our products. Sappi’s fiber sourcing declarations also include statements of compliance with the Lacey Act and avoidance of controversial sources, as well as information on Sappi’s current chain-of-custody and responsible sourcing certificates. These are available on sappi.com/sustainability-certifications.

* The SFI Fiber Sourcing Standard applies only to the wood and chips we procure for our US mills.
More than a year ago, we set our ambitious Thrive25 sustainability targets to align with the United Nations Sustainable Development Goals (UNSDGs), making them relevant to us locally and globally. Completing our initial year working toward these 2025 targets, I am excited that we met or exceeded most of our goals.

Let me make this real for a moment: our improvement in energy efficiency from the 2019 baseline is enough to electrify over 80,000 homes for a year. Our reduction in carbon dioxide emissions, off this same baseline, is equivalent to annually removing over 24,000 cars from our highways. This does not happen without a strong plan to meet these goals, and more importantly, it can only happen with dedicated employees to execute that plan. We accomplished our goals against the difficulties of the COVID pandemic and continual challenges to employee wellness—a real testament to Sappi’s adaptability and perseverance.

Over the past year, we purposely accelerated our efforts to weave together a strong network of teams focused on our sustainability ambitions. It has been rewarding to see the level of cross-functional collaboration in pursuit of our mission to benefit people, take care of the planet, and achieve prosperity.

This company-wide effort included contributions from talented sustainability ambassadors at our sites, functional teams within Sappi, and our relationships with suppliers and other value chain partners.

It is clear that sustainability is a central part of Sappi’s integrated business strategy, which strives to expand our role in building a more circular economy.

For any company to advance, a solid foundation is needed. Looking forward, I am confident in the cross-functional foundation we have built to drive our next level of sustainability work. Despite our achievements, we have much work to do. We must commit to further decarbonization through the Science Based Targets initiative (SBTi) and continue our efforts to meet our full complement of 2025 sustainability goals, including diversity in the workforce, and employee and community engagement. In the coming year, we will continue to concentrate on the framework for climate-related financial disclosures (TCFD) to ensure proper climate risk management.

As always, this work will be done in the context of focusing on critical customer needs. I look forward to using our strong position on sustainability to collaborate, introduce new products, and drive improvements across the value chain.

Our company purpose remains our guiding force: to build a thriving world by unlocking the power of renewable resources to benefit people, communities, and the planet. We are living this purpose more and more each day.

Beth A. Cormier
Vice President
Research, Development, and Sustainability
Sappi North America
Ratings

"Proper benchmarking is key to driving reliable continuous improvement, and I am pleased we continue to deliver strong results with CDP, EcoVadis, and Higg Index for textiles. We should be proud of our strong position within these globally recognized standards."

Sandy Taft retired from Sappi North America in April 2022. His contributions to our regional and global sustainability efforts have been significant. Sandy helped develop our new five-year sustainability goals (Thrive25), along with the key performance indicators that are so important for tracking our sustainability progress. He also assembled a network of working groups to reinforce sustainability as a core business system at Sappi.

Sandy has always worked enthusiastically and generously to showcase Sappi’s commitment to sustainability. All of us at Sappi are grateful for Sandy’s contributions, and we wish him a happy and fulfilling retirement.

CDP
The Carbon Disclosure Project (CDP) runs the global environmental disclosure system. Each year CDP supports thousands of companies, cities, states, and regions in measuring and managing their risks and opportunities on climate change, water security, and deforestation.

EcoVadis
EcoVadis recognized SNA as a Platinum-rated company, its highest level, putting SNA in the top 1% of pulp and paper companies assessed.

EcoVadis is the world’s largest and most trusted provider of business sustainability ratings. It evaluates how well companies have integrated the principles of sustainability and corporate social responsibility into their business and management systems.

FTSE4Good
Sappi is a constituent of the FTSE4Good Index Series. Created by the global index provider FTSE Russell, the FTSE4Good Index Series is designed to measure the performance of companies demonstrating strong environmental, social, and governance (ESG) practices. The FTSE4Good indexes are used by a wide variety of market participants to create and assess responsible investment funds and other products.

In addition, Sappi has been classified as “Prime” by ISS-oekom, one of the world’s leading ESG research and rating agencies for sustainable investments.

Higg Index
The Cloquet Mill achieved a final score of greater than 80% on the Higg Facility Environmental Module (FEM) verification audit, which is an endorsement of sound environmental practices employed by the mill. The facility produces dissolving pulp sold under the brand name Verve.

The Higg FEM informs manufacturers, brands, and retailers about the environmental performance of their individual facilities, empowering them to scale sustainability improvements. The Higg FEM assesses the following: environmental management systems, energy use and greenhouse gas emissions, water use, wastewater, emissions to air (if applicable), waste management, and chemical management.
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Sappi North America’s Business Units

Pulp
Graphic papers
Packaging papers
Speciality papers