

Annual
Sustainability
Report

2021



NOVALIS[®]
INNOVATIVE FLOORING

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Introduction

It's safe to say the world has reached a tipping point. Between the ongoing COVID-19 pandemic, major supply chain disruptions and the worsening climate crisis, the challenges that we face, as a planet, are unprecedented. While the global economy is still struggling to find solutions to mitigate the impact of these catastrophic global events, we are faced with the looming disaster of global temperature rise, due in part to global carbon emissions.

At the 2021 UN Climate Change Conference (COP26) in Glasgow, UK, all member states pledged to limit the rise in global temperature to 1.5°C to mitigate further risks. The COP26 President, Alok Sharma, summarized the outcomes by saying, "we can now say with credibility that we have kept 1.5 degrees alive. But its pulse is weak, and it will only survive if we keep our promises and translate commitments into rapid action." With its Green Deal, the European Union has set an ambitious overarching goal to answer this call and achieve climate neutrality by 2050. This deal comes with a variety of regulations intended to, among other things, reduce greenhouse gas (GHG) emissions, foster the transition to a circular economy and make building renovation more efficient.

At Novalis, we welcome this movement: after all, sustainability is one of our core principles and something we incorporate into all that we do. We pride ourselves as an industry leader when it comes to

product safety and transparency. Not only do we independently verify that our products are safe for our colleagues, installers and end-users, but we also publicly disclose our ingredients so that our customers can make informed purchasing decisions. However, we feel compelled to do more to tackle the current environmental, social and governance challenges we all face.

"We can now say with credibility that we have kept 1.5 degrees alive. But its pulse is weak, and it will only survive if we keep our promises and translate commitments into rapid action."
Alok Sharma, COP26 President

As a family-run business, we know that we cannot conquer these challenges alone: to avoid a climate catastrophe, it will take bolder action on behalf of companies like ours. That's why we work closely with the flooring industry, our facilities, our partners and our customers around the globe to research and promote environmental and social responsibility, from raw material sourcing to end of life. Our goal is to produce products that are sustainable by design to accelerate the transition to a circular economy, from cradle to cradle, so that we can reduce and eventually eliminate the waste and

greenhouse gas emissions associated with the production of Novalis products.

The following report is intended to provide a glimpse into our past environmental performance, our current sustainability goals and our future climate commitments. As we prepare to bring

our sustainability reporting in-line with the GRI and SASB reporting frameworks, we expect this report to adapt to the feedback that we gather from important stakeholders and the evolution of global and regional environmental, social and governance initiatives.

At Novalis, the pulse of sustainability is alive and we intend to work diligently to do our part to preserve the world for generations to come.

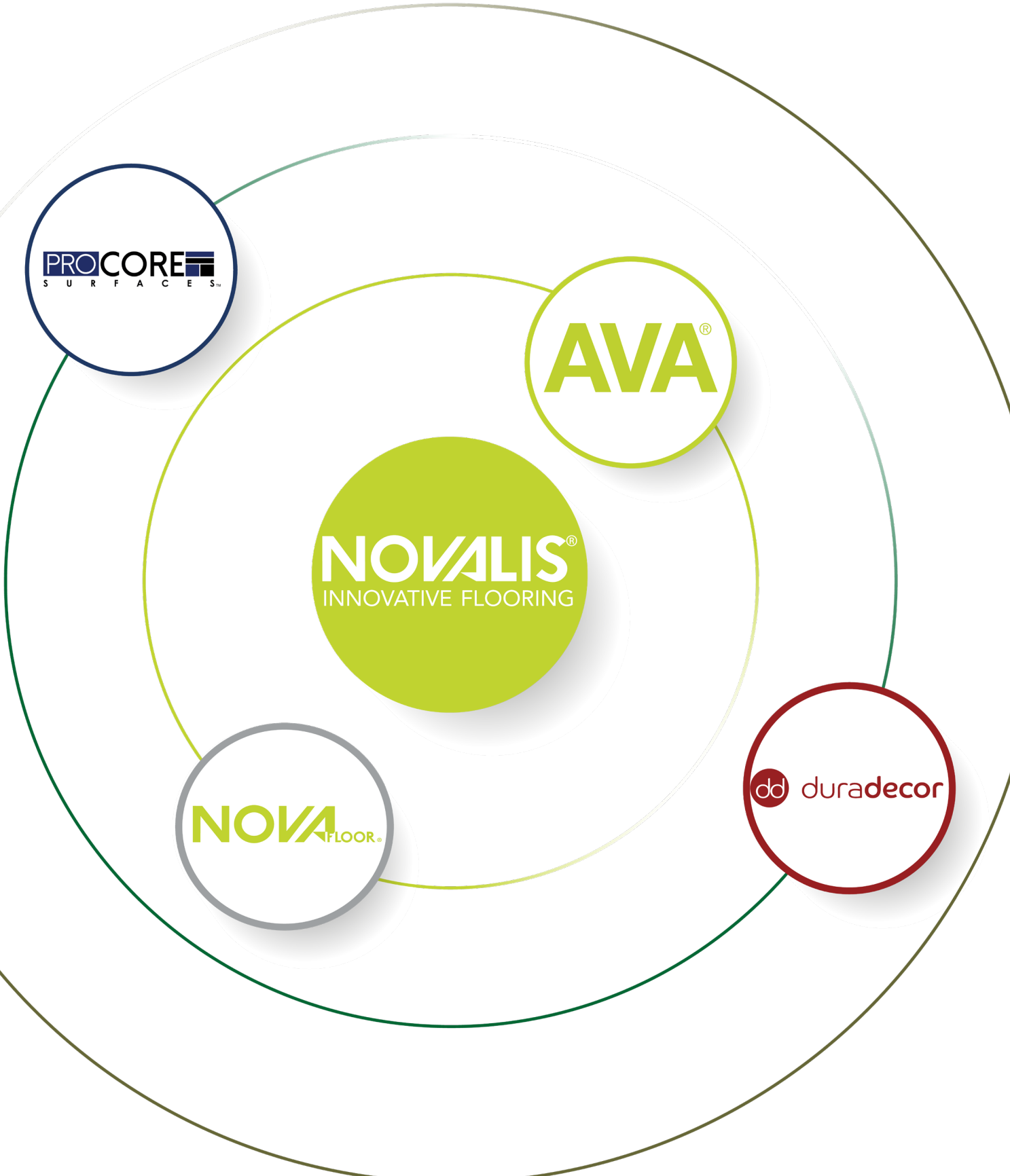
As a family-run business, we know that we cannot conquer these challenges alone: to avoid a climate catastrophe, it will take bolder action on behalf of companies like ours.



Graham Capobianco
Sustainability Manager, North America



Joost Luhmann
Sustainability Manager, Europe



Novalis Innovative Flooring is an industry leader in designing and manufacturing sustainable and innovative Luxury Vinyl Tile (LVT). With over 30 years of experience, Novalis continues to develop designs and products that set the global benchmark in LVT quality and performance.

Established in 1984, Novalis has grown worldwide with sales offices and distribution partners in North America, Europe, Asia Pacific, and Africa. Novalis continues to be a private, family-owned company.

Inspiration



An international specialist in luxury vinyl flooring for more than 30 years, Novalis Innovative Flooring designs flooring with style, quality and innovation in mind. Our team of talented designers takes cues from nature, architectural trends, high-fashion textiles and runways around the world to bring customers the most beautiful, versatile flooring in the industry.

Innovation



Thanks to a history filled with revolutionary product innovation, Novalis flooring is now sold in over 50 countries across six continents in a variety of award-winning commercial spaces and homes. We continue to take pride in our ability to utilize cutting-edge technologies to deliver world-class products to our customers around the globe.

Responsibility

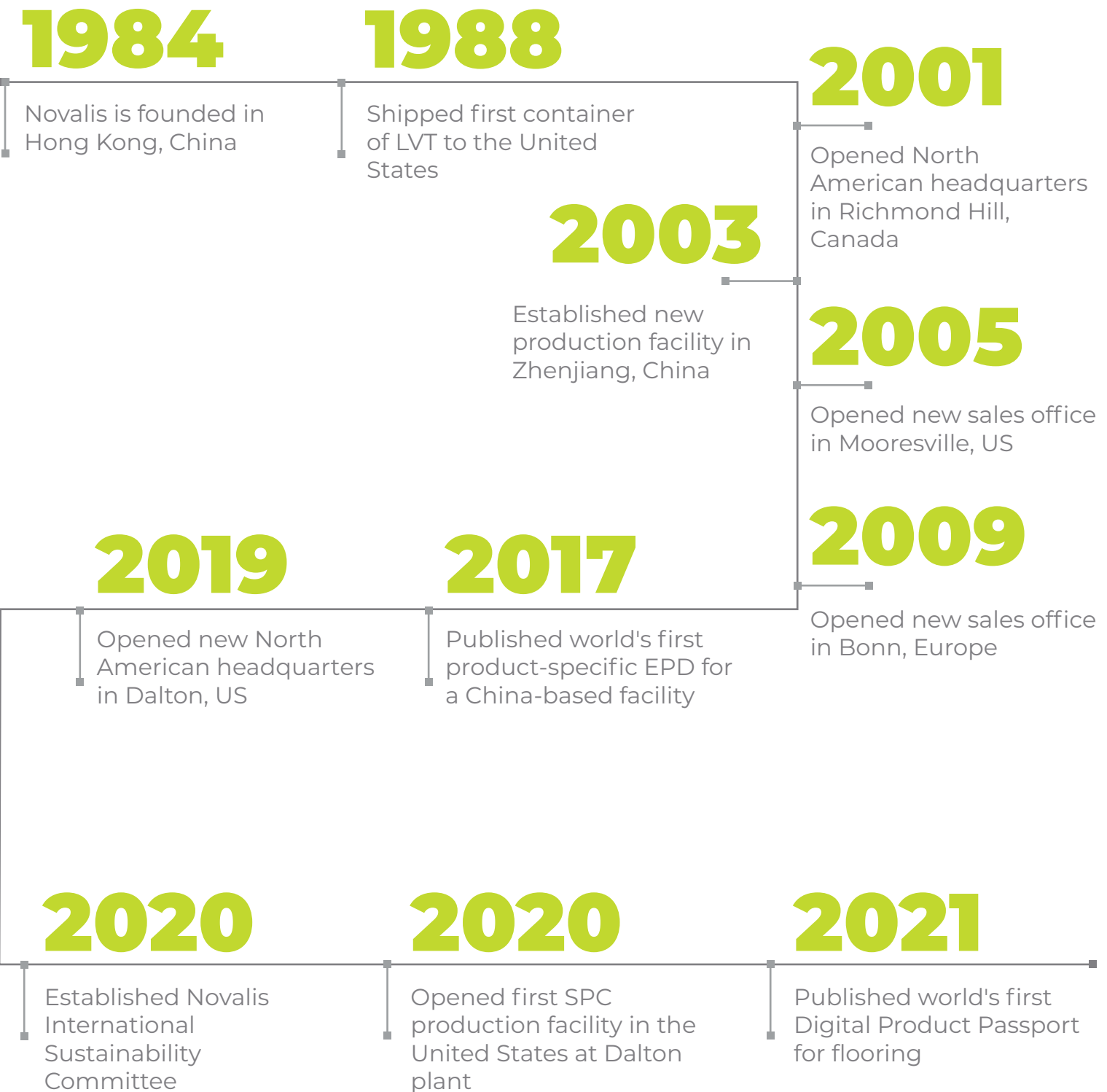


As an industry leader, we take seriously our commitment to keeping people healthy and the earth habitable. Long before sustainability was a key focus in our industry, Novalis founder Dr. Z.L. Wu sought to create a durable, versatile flooring option and began the research and development of sustainable luxury vinyl tile. Today, environmental responsibility remains a cornerstone of our business.

Corporate Locations

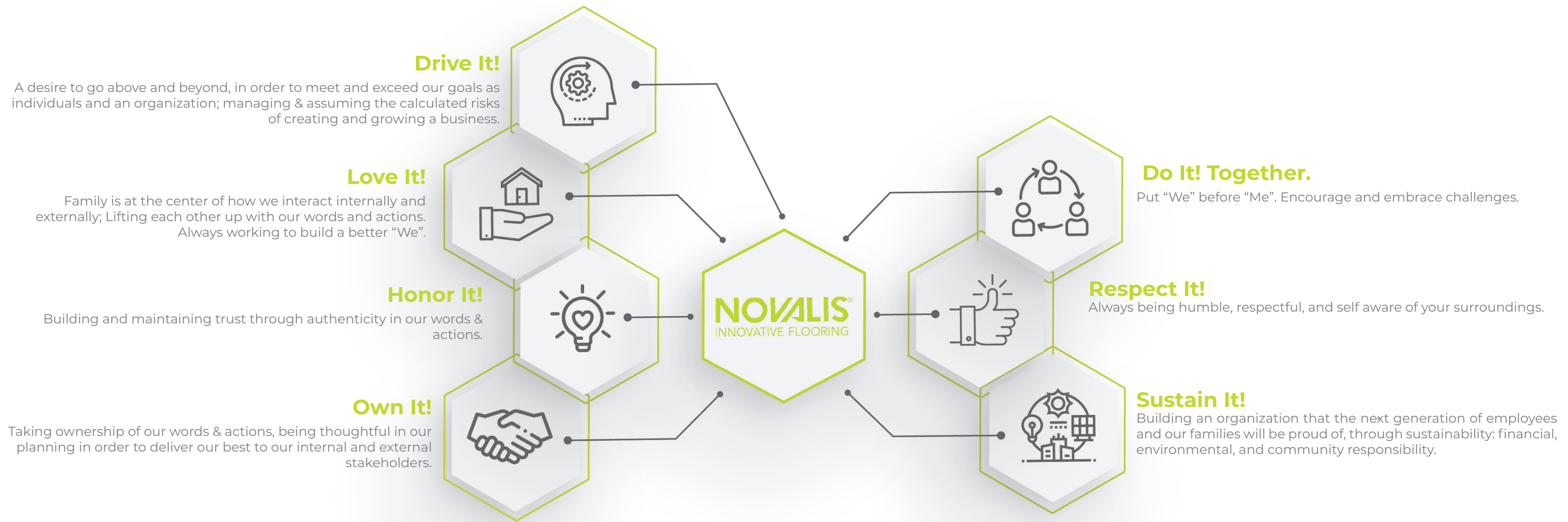


Corporate History



Corporate Values

Taking ownership of our words & actions, being thoughtful in our planning in order to deliver our best to our internal and external stakeholders.



Building an organization that the next generation of employees and our families will be proud of, through sustainability: financial, environmental, and community responsibility.

Environmental Stewardship



Sustainability Overview



Following the global COVID pandemic, many companies were forced to pause their operations, causing unprecedented disruptions in the global supply chain. This resulted in material shortages, soaring demand and, in turn, rising prices in nearly every sector. Furthermore, the Russian invasion of Ukraine and escalating tensions with Western countries have led to an energy crisis in many European countries, due in part to their dependency on fossil fuels. In combination with the climate crisis, the world is facing some truly challenging conditions.

However, these challenges are not without opportunities. Like many companies, Novalis is beginning to look more closely at our production processes and operations, in order to improve our energy efficiency and water consumption, reduce our impact on the environment and minimize our consumption of finite resources.

To do this, we consistently monitor consumption and report our resource

consumption and emissions, while also establishing reduction targets and long-term goals. This also enables us to seize more sustainable opportunities and implement potential counter-measures, should we notice any discrepancies.

Like many companies, Novalis is beginning to look more closely at our production processes and operations, in order to improve our energy efficiency and water consumption, reduce our impact on the environment and minimize our consumption of finite resources.

Additionally, sustainable product design is becoming one of our guiding principles. Novalis is committed to phasing-out potentially harmful and non-recyclable raw materials and products in favor of safer, rapidly renewable, recycled and/or recyclable raw materials. In the following section, we will review our sustainability efforts.

Association Memberships

Product Certifications

Novalis proudly supports and actively participates in several organizations and associations aimed at improving the floor covering industry and upholding the highest standards in manufacturing and construction. Below are just a few of these organizations.

- ASTM INTERNATIONAL**
American Society of Testing & Materials (North America)
- CISUFLO**
CIRCULAR SUSTAINABLE FLOOR COVERINGS
Circular Sustainable Floor Coverings (Europe)
- DGNB**
Deutsche Gesellschaft für Nachhaltiges Bauen e.V.
German Sustainable Building Council (Germany)
- eufca**
European Floor Coverings Association
European Floor Coverings Association (Europe)
- ISWA**
International Solid Waste Association
International Solid Waste Association (International)
- Green Idea Green Action - GIGA**
(Asia)
- HPDC**
Health Product Declaration Collaborative
(North America)
- INTERNATIONAL LIVING FUTURE INSTITUTE**
International Living Future Institute - ILFI
(North America)
- VINYL SUSTAINABILITY COUNCIL**
Vinyl Sustainability Council - VSC
(North America)
- NAFCD**
Trends ▪ Education ▪ Leadership ▪ Networking
North American Association of Floor Covering Distributors
(North America)
- RFCi**
Resilient Floor Covering Institute
(North America)
- WORLD FLOOR COVERING ASSOCIATION**
World Floor Covering Association - WFCA
(International)
- m m f a**
Multilayer Modular Flooring Association
(Europe)



Novalis prides itself on achieving a wide variety of third-party product certifications, which independently confirm our commitment to product safety, quality assurance, transparency and environmental responsibility.

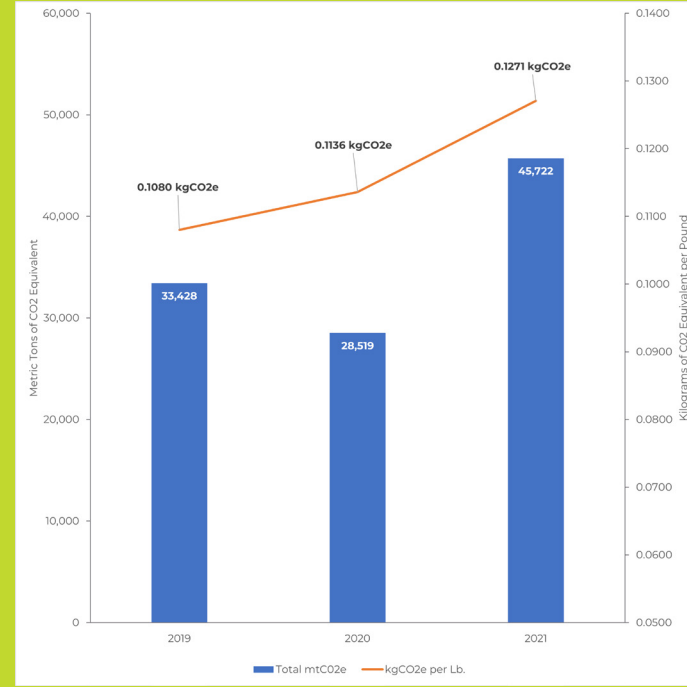
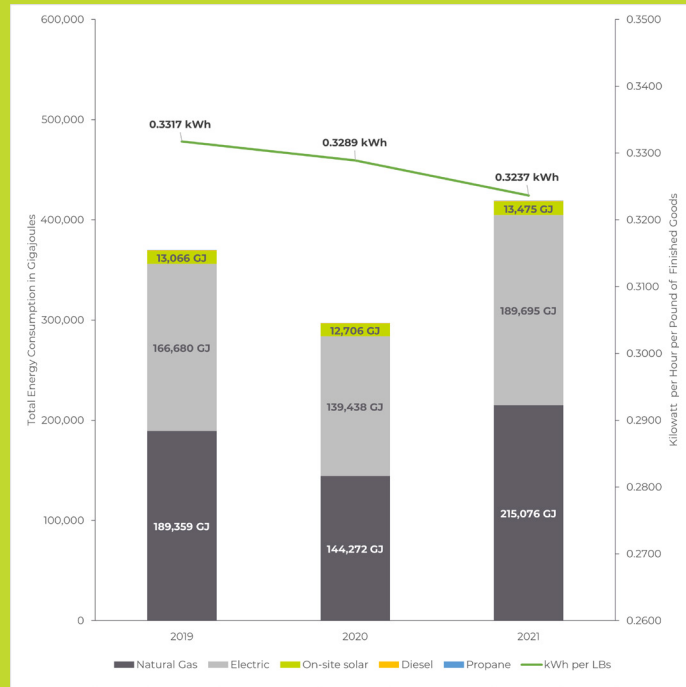
Consumption



Energy Usage

In 2020, our total energy consumption declined by ~22%, due to an 18% drop in production output induced by COVID-19 restrictions and our concerted effort to reduce our overall energy usage.

In 2021, there was an increase in production caused by a renovation boom in Western countries and increased demand for construction products. In addition, our United States manufacturing facility came on line, thus increasing our overall capacity. As a result, our 2021 production output increased by 39% and our energy usage was 36% higher. Despite this, our energy usage per pound of finished goods continued to decline, from 0.3289 kWh in 2020 to 0.3237 kWh in 2021.



Carbon Emissions



Carbon emissions and carbon footprint calculations have become increasingly common metrics for measuring the environmental impact. Based on our higher global energy consumption and increased production output in 2021, we also emitted nearly 18,000 more metric tons of carbon dioxide, which is around 60% more than the previous year.

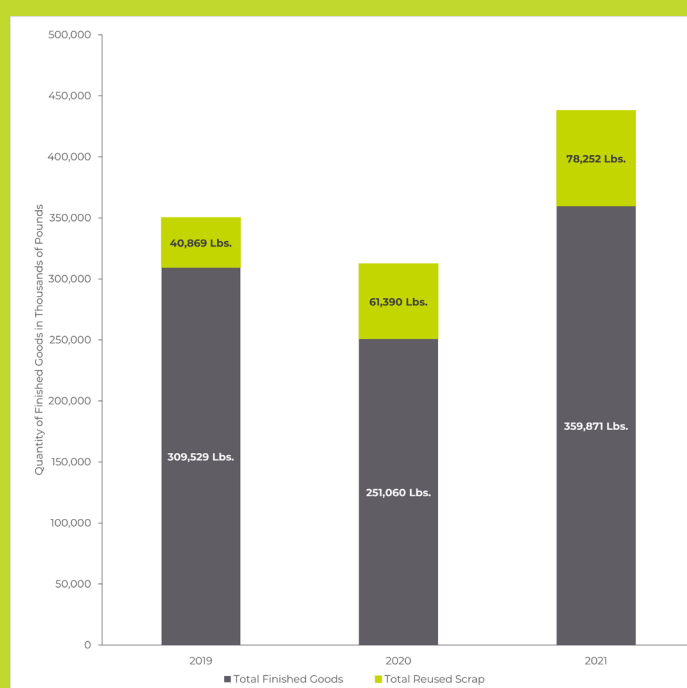
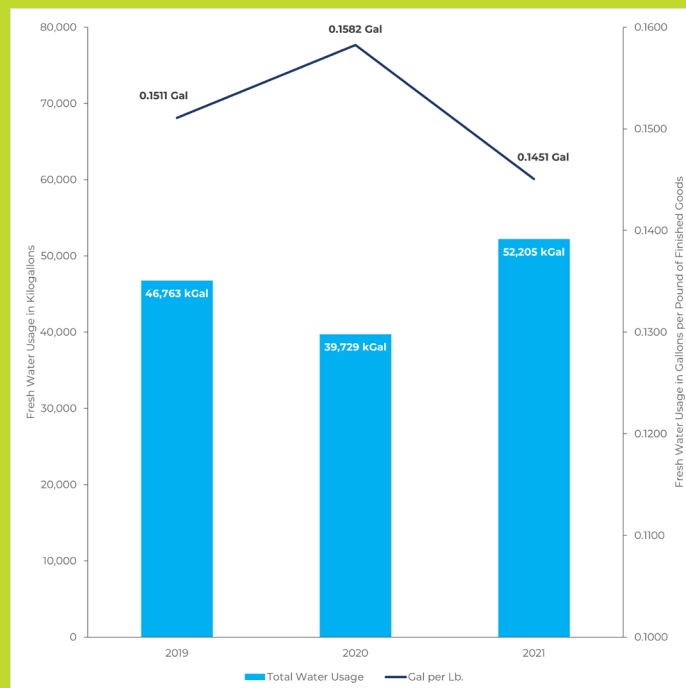
Novalis is currently assessing ways to reduce our carbon emissions through a variety of different means, such as switching our energy sources to environmentally-responsible options, improving the efficiency of our water usage and retention, and compensating for our carbon emissions through the use of verified carbon offset programs.



Water Usage

To conserve valuable water resources, Novalis built a closed-loop water cooling system at our China manufacturing facility in 2019. This system pumps heated water from production machinery into a multi-stage cooling system, eventually leading to a retaining pool. Our water usage is primarily used to maintain the water level of this retaining pool, which feeds back into the facility.

As production output increased in 2021, so to did our water consumption. However, in spite of increased production and rising outdoor temperatures, our water usage per pound of finished goods has declined overall, from a high of 0.1582 gal / lb. in 2020 to 0.1451 gal / lb. in 2021.



Waste Diversion

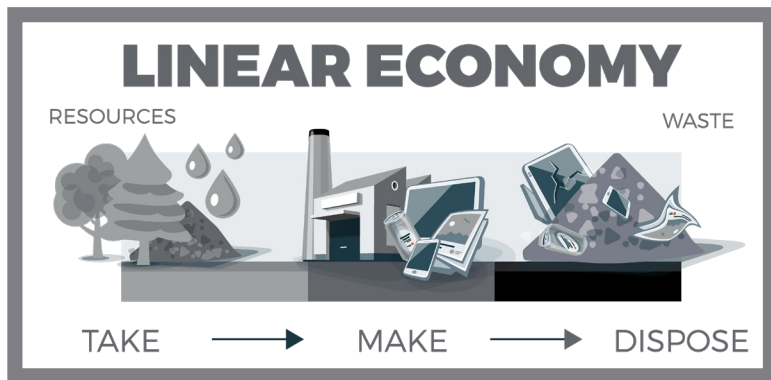


As part of our efforts to reduce waste, both our US and China manufacturing facilities take scrap from our manufacturing processes, grind it back into a raw material and re-incorporate it into finished goods. This not only reduces our raw material consumption, but also reduces the amount of waste we send to landfill and decreases our raw material usage by 20%. Since 2019, we have nearly doubled the amount of reused scrap in our manufacturing process.

In addition to recycling scrap, our US facility is working towards identifying its waste streams and diverting all of its waste from landfill by 2024.

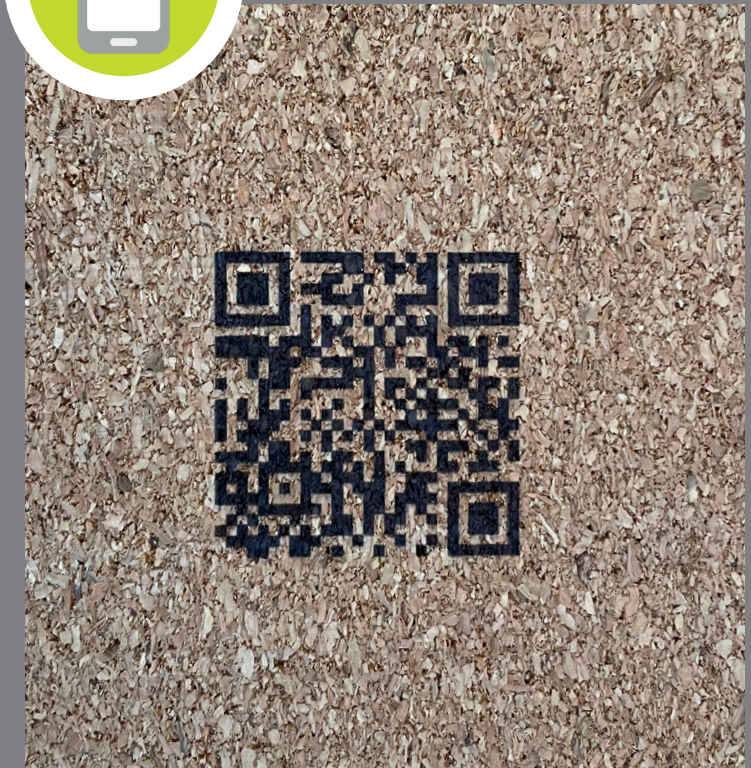
Circularity Initiatives

While reducing resource consumption is important, that alone will not stem the current climate crisis - that's why organizations around the world are researching ways to transition from a linear take-make-waste economy to a sustainable circular economy. Not only will this help tackle critical environmental issues, it will also prevent the depletion of finite, non-renewable resources, limit the hazards of waste accumulation and keep the earth habitable for future generations.



Digital Product Passports

As part of the European Green Deal, all consumer products sold in Europe will be required to have a Digital Product Passport (DPP) by 2024. In addition to providing product-specific information, such as installation information, sustainability certifications, and ingredients disclosure, DPPs will make end-of-life options easier to identify. As an early adopter of the DPP, Novalis will begin printing a unique QR code on the back of our flooring products. This QR code will enable installers, consumers, end-users, recyclers and disposal authorities to easily identify the product and determine what its end-of-life options are. This will both enable the product to be re-used or recycled appropriately, diverting the material from landfill.



Takeback Programs

To tackle the many issues related to waste disposal, many countries, states, provinces, municipalities and organizations around the world are beginning to demand recyclable materials. While many of our products are completely recyclable, there are few recyclers that can adequately process and recycle vinyl flooring. For that reason, our European and North American teams are actively involved with industry efforts to create centralized recycling facilities and infrastructure to support the processing of our vinyl products. Our European team has started to conduct scale-up recycling trials in Europe, collecting post-installation and residual LVT scrap from the job-site in large collection bags, which are then taken to a facility that can grind scrap into a raw material that can be used in the manufacturing of new products.



Social Responsibility



Social Responsibility Overview



Human health and safety is an inseparable part of sustainability - it is what largely started the worldwide movement of designing products that are safer for humans and the environment. However, one element that has often been overlooked in the past is the health and safety of the humans involved with the raw material extraction and manufacturing of finished goods. As awareness about questionable labor practices around the world has grown, so to has the demand for products that are ethically sourced from companies that prioritize the health, safety and well-being of their employees and the employees within their supply chain. This often requires that companies more closely scrutinize their own labor practices, as well as their raw material and product sources.

Whether it's the health, safety and well-being of our customers, flooring installers, our colleagues, or those within our supply chain, corporate social responsibility and the consideration of the many humans who are involved with our operations is incredibly important to Novalis. In the following section, we will review our corporate social responsibility efforts and the many ways that Novalis puts human health first.

Social Policies

Corporate Social Responsibility starts with the policies and practices we instill in our daily operations. We hold ourselves to a high social standard, regardless of hierarchical position or department.



Some of our most important social policies are:



Elimination of Child Labor

Novalis believes that employing children, forcibly or not, is a wholly unethical practice. That's why we have specific hiring practices and social policies in place that ensure we do not employ children at any of our facilities. Furthermore, Novalis does not knowingly procure materials from companies or locations where child labor is acceptable or suspected. Novalis complies with all federal, state/province and local hiring laws and does not employ anyone below the minimum legal age to any capacity at any location.



Anti-Forced Labor & Human Trafficking

Forced labor and human trafficking are reprehensible crimes that are contrary to our corporate values. As such, all Novalis employees are employed on a voluntary basis - per our hiring policies, employees cannot be forced to comply with or perform any action against their will. Novalis complies with all labor laws related to human trafficking, slavery, indentured servitude, forced labor and workplace abuse. Novalis does not knowingly procure materials from companies or locations that violate these important labor laws.



Equity & Inclusion

Novalis believes that diversity within our international organization is one of our many strengths. To that end, Novalis is an equal opportunity employer and does not discriminate against any current or potential employee on the basis of race, color, religion, nationality, age, disability, sexual identity or orientation, marital status, veteran status or any other legally protected characteristic. Furthermore, we have instituted anti-harassment policies that protect everyone in our facilities from harassing conduct or language.



Health & Safety

As a company that fosters a family environment, the health and safety of our employees, vendors, guests and visitors is paramount. We take safety seriously and routinely train our employees on important general safety measures, emergency preparedness, first-aid and fire. We regularly perform internal audits and participate in external audits to ensure that our employees are protected and that our facilities comply with local laws, industry guidelines and the expectations of our employees.

Consumer Safety

The health and safety of our customers and end-users is at the heart of what we do. That's why we rigorously screen our raw materials and independently test our products to qualify for even the most stringent certifications.



VOC Emissions

Novalis products have been tested for 40 different hazardous chemicals and chemical groups and have been independently verified to emit less than 220 µg/m³ of all VOCs. As a result, our products qualify for the most stringent VOC emissions certifications and will not negatively impact human health or indoor air quality.



Ingredient Transparency

Novalis discloses all chemical ingredients that are present in our finished products in concentrations of 1000 PPM and higher. As a result, our products qualify for even the most stringent transparency certifications, enabling our customers to make informed buying decisions when they consider our products.



Phthalates & Heavy Metals

Novalis products do not contain any ortho-phthalates, as well as lead, chromium, cadmium or mercury. Additionally, our rigid core products are tested for ortho-phthalates and heavy metals and have been independently verified to contain less than 1.0 PPM and 0.25 PPM of either chemical group, respectively.

Social Auditing



Social audits independently verify that manufacturers and suppliers are operating in an ethical manner. Social audits assess a company's labor, health and safety, environmental and business practices against international best practices.

China Social Audit

In 2020, Novalis voluntarily conducted a third-party verified Sedex Members Ethical Trade Audit (SMETA), a globally recognized standard for social audits. Novalis opted to undergo the full, 4-pillar audit (labor, health and safety, environmental, and business ethics).

The audit was completed by SGS, who observed conditions in the factory, reviewed documentation, and interviewed 42 employees. Through the review process, the auditors confirmed that the factory has an established management system to handle social accountability, that workers were satisfied with their employment, and that the site was in good condition.

The audit also found that having ISO-certified quality, environmental and occupational health and safety management systems made our facilities exemplary. This audit process enables us to provide customers with transparency and robust confidence in our corporate and business ethics.

United States Social Audit

In 2022, in conjunction with one of our customers, Novalis participated in a social audit conducted by Bureau Veritas. Similar to our China social audit, auditors observed conditions in our US factory and headquarters, reviewed documentation, and interviewed several key executives, managers and employees. This audit confirmed that Novalis' labor practices, health and safety initiatives, and procurement practices were in line with industry best practices and met or exceeded the expectations of our customers.

The audit also found that Novalis has created an atmosphere of transparency that made data collection and constructive feedback loops easier. Furthermore, auditors reported that employees were satisfied with their employment and that the executive and management teams had fostered a family-like atmosphere consistent with Novalis corporate values.

Facility Certifications

Over the last decade, sustainability has evolved from simple product testing and third-party verification to a complex and holistic analysis of how products are made. As our most recent social audits have shown, sustainability has expanded to include more than just the environment - customers are also concerned with our quality, health and safety management practices as well. Additionally, regulators from all over the world are beginning to pass laws and regulations that require manufacturers to publicly disclose their environmental, social and governance impacts.

Sustainability is one of Novalis' core tenets, which is why our China-based manufacturing facilities lead the industry in plant level and product certifications, including ISO certifications for our Quality Management Systems, Environmental Management Systems and our Occupational Health & Safety Systems.



ISO 9001
Demonstrates the organizations ability to consistently provide products and services that meet customer and regulatory requirements.



ISO 14001
Enhances environmental performance, fulfills compliance obligations, and ensures achievement of environmental objectives.



ISO 45001
Improves occupational health and safety, eliminates hazards and minimize OH&S risks (including system deficiencies), takes advantage of OH&S opportunities, and addresses OH&S management system nonconformities.

As we expand our production capacity around the world, we hope to obtain additional facility certifications in the years to come.

Future Outlook

Novalis is committed to continually improving our sustainability efforts and reporting. As we continue on our sustainability journey, here are three things to look for in next year's sustainability report.

01

Reduction Goals

Using the data gathered from this year's report, we hope to come up with more concrete resource consumption reduction plans and goals.

02

Recycling & Waste Diversion

As we look for ways to divert more waste from landfill and find avenues for recycling our waste and finished goods, we hope our next report includes data that shows our commitment to reducing waste.

03

GRI & SASB Compliance

Following the conclusion of our materiality assessment, we hope that next year's sustainability report is compliant with GRI and/or SASB sustainability reporting standards.



Reporting Period

January 1st - December 31st, 2021

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