

2022

Sustainability Report

Addressing the emerging challenges of tomorrow



Pictured: The new solar electricity plant at Advancion's Ibbenbüren, Germany, manufacturing facility is expected to generate roughly 5 GWh/year of renewable energy.



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About the 2022 report

This report covers the operations and activities of Advancion Corporation (“Advancion” or “Company”), formerly ANGUS Chemical Company, for the fiscal and calendar year beginning January 1, 2022, and ending December 31, 2022. This report also contains information on other key sustainability activities occurring in the first half of 2023. The scope of this report includes facilities owned and directly operated by Advancion and its affiliates and subsidiaries during 2022, including select data related to Expression Systems, LLC, which was acquired by Advancion in November 2022. There are no restatements and no changes from previous reports in terms of scope and/or boundaries included.

The Advancion 2022 Sustainability Report has been prepared in accordance with the GRI Sustainability Reporting Standards 2021 (GRI Standards), as well as other standards issued by the Sustainability Accounting Standards Board (SASB) and the United Nations Sustainable Development Goals (UN SDGs). The data and disclosures in this report are for the full year ending December 31, 2022, unless otherwise stated. In some cases, numbers and percentages in the report may reflect estimates or approximations

and may rely on assumptions. This report also contains statements regarding targets, plans, strategies and objectives that are “forward-looking” and aspirational in nature.

The data included in our 2022 Sustainability Report was aggregated, analyzed and reviewed by Advancion’s Environmental, Health and Safety (EH&S) department; Advancion senior management; the Advancion Board of Directors; and other key internal stakeholders. While our data undergoes a robust internal quality control process, it has not undergone a third-party validation and/or assurance process in its entirety. We are evaluating obtaining external assurance for our data collection and sustainability reporting process in the future.

Feedback and questions about the report

For copies of our publicly available policies, or for more information regarding our operations, please visit advancionsciences.com. A downloadable version of this Sustainability Report and GRI Index is available on our website at advancionsciences.com/sustainability.

For questions, comments and suggestions about our report, please contact:

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Advancion

Essential inputs. Extraordinary outcomes.™

From material science to molecular biology, we combine precision and ingenuity to reimagine, rebuild and tailor ingredients that transform the world's most essential industries.

Advancion designs and produces high-value consumables and ingredients that help enrich lives and enable our customers to advance the world by:

- Positively impacting health and well-being;
- Improving the performance and profile of everyday products; and
- Minimizing waste and maximizing impact.

A statement from our CEO

Statement on sustainable development strategy GRI 2-22



To our employees, business partners and stakeholders,

I am pleased to provide you with our second annual public sustainability report aligned to the latest Global Reporting Initiative (GRI) Universal Standards. Today, ANGUS Chemical Company now operates as Advancion Corporation and, in this report, we reflect on the continued progress and transformational successes we achieved in 2022.

This past year brought with it familiar and new challenges including the lingering impact of the COVID-19 pandemic and a violent conflict in Ukraine. We faced unprecedented inflation, an energy security crisis, as well as intensified disruptions across the global supply chain. As the world grappled with resource availability and significant price fluctuations in raw materials, this posed a dual challenge for our organization in ensuring a consistent supply chain while maintaining sustainable manufacturing and sourcing practices. Despite these dynamics, we successfully leveraged our investments in dual manufacturing and enhanced our logistics and procurement strategies to maintain uninterrupted product quality and availability while minimizing environmental impact.

With each passing year, consumers and end users demand more sustainable products and services that improve our health, homes and environment. Meeting these expectations with the highest levels of product quality require ongoing investment in research and application science. Our commitment to innovation and new product development gained strong momentum in 2022.

We expanded our portfolio of in-house produced biological buffers, introducing several new-to-Advancion ingredients that are essential in both the upstream development and downstream processing of novel biologics and advanced therapies. In addition, we launched a complete line of botanical extracts catering to increasing consumer preferences for home and personal care products that use naturally derived ingredients. These, together with our acquisition of Expression Systems, further enhance our ability to help customers address the emerging challenges of tomorrow with high-performance, sustainable products, best-in-class quality and guaranteed supply security.

In 2022, we implemented a companywide action plan for achieving a 10-percent reduction in emissions, waste, water and energy usage by 2030. Through our investments in optimizing manufacturing processes and implementing energy-efficient technologies, we have already made substantial progress in these areas versus our 2020 baseline. We continue to focus on new opportunities to repurpose waste into valuable resources, contributing to both environmental sustainability and cost reduction, as well as investing in renewable energy sources, including the start-up of a new solar electricity plant at our Ibbenbüren facility in summer 2023.

Our successes in 2022 serve as a testament to the dedication of the entire Advancion team and the strong partnerships we have formed with our stakeholders around the world. We are committed and determined to create a brighter, more sustainable future for all. We will continue to innovate, adapt and work together with you, our valued employees, business partners and stakeholders to drive positive change in our industry as well as in the essential industries we serve.

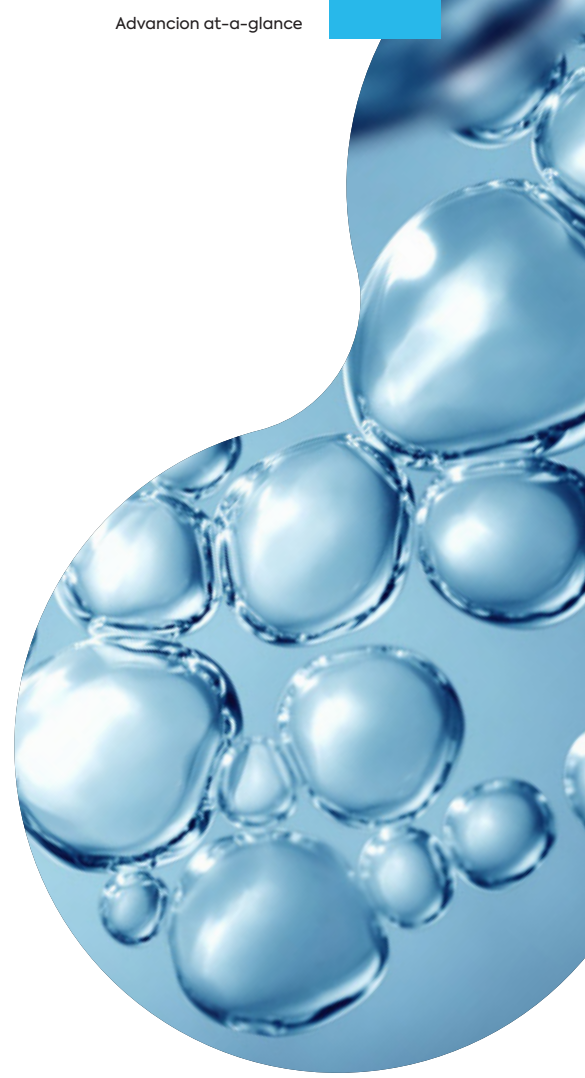
Thank you for your continued trust and support as we strive for a greener and more sustainable world.

A handwritten signature in black ink, appearing to read 'David Neuberger', written over a light grey background.

David Neuberger
President and Chief Executive Officer

Advancion at-a-glance

Advancion is a portfolio company of Ardian and Golden Gate Capital and a leading global producer of specialty ingredients and consumables for biotechnology, pharmaceutical, consumer and industrial applications. Our unique ingredients help improve product performance, quality, consistency, durability, stability and other important attributes in end-use formulations. Through Expression Systems, an Advancion company, we produce innovative cell culture media formulations, cell lines, molecular tools and reagents used in the development and commercial manufacturing of advanced therapies. Many Advancion products have a favorable environmental profile that enables our customers to meet or exceed increasingly stringent environmental regulations and performance requirements.



Our markets

(Percentages based on 2022 Net sales)

Advancion participates in a wide range of end markets that we aggregate into three major categories and related submarkets:



Life Sciences

40%

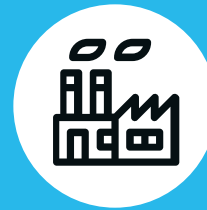
Bioprocessing and Biopharmaceuticals, Pharmaceutical Synthesis, Diagnostics, Agriculture



Personal Care and Consumer

27%

Beauty and Personal Care, Residential Paints and Coatings, Electronics Chemicals, Household and Industrial Cleaning



Performance Ingredients

33%

Industrial Paints and Coatings, Metalworking Fluids, Chemical Manufacturing, Leather Tanning, Liquid Hardeners, Pulp, Paper and Mineral Slurries, Oil and Gas, Synthetic Rubber, Water Treatment

Where we operate



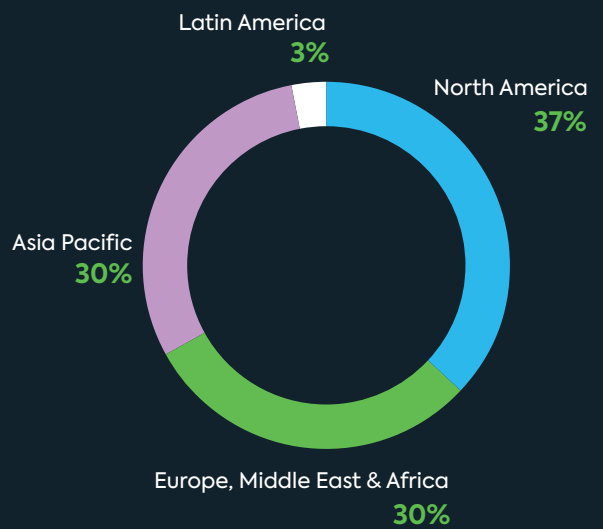


2022 by the numbers

- 13** locations in **11** countries
- 3** manufacturing sites
- 2** R&D centers
- 6** Customer Application Centers (CACs)
- 433** full-time employees
- >100** contract employees

Sales by region

(Percentages based on 2022 Net sales)



Our purpose

We look beyond conventions to design and develop solutions that enrich lives and enable our customers to advance the world.

How we see the world

Purposeful thinkers

We fuse intelligence with intentionality. We have a deep understanding of customer needs and recognize exactly what it takes to meet them.

Passionate inventors

Where others see a plateau, we see a platform. We have a powerful passion for potential and are constantly seeking new ways to unlock it.

How we work

Proactive

We operate with equal parts agility and accuracy. We ensure that we complete our work quickly — and that we do it correctly the first time.

Collaborative

We're bound by a shared vision for progress. We each play an essential role in making this vision a reality.



Our values

Our values represent how we think and act — the behaviors that define our people and culture.

Applied ingenuity

We are creators by nature, always reimagining new ways to apply our ingredients.

Principled and pragmatic

We stand strong behind our principles.

Thoughtful originality

We're energized by our ability to see beyond conventions.



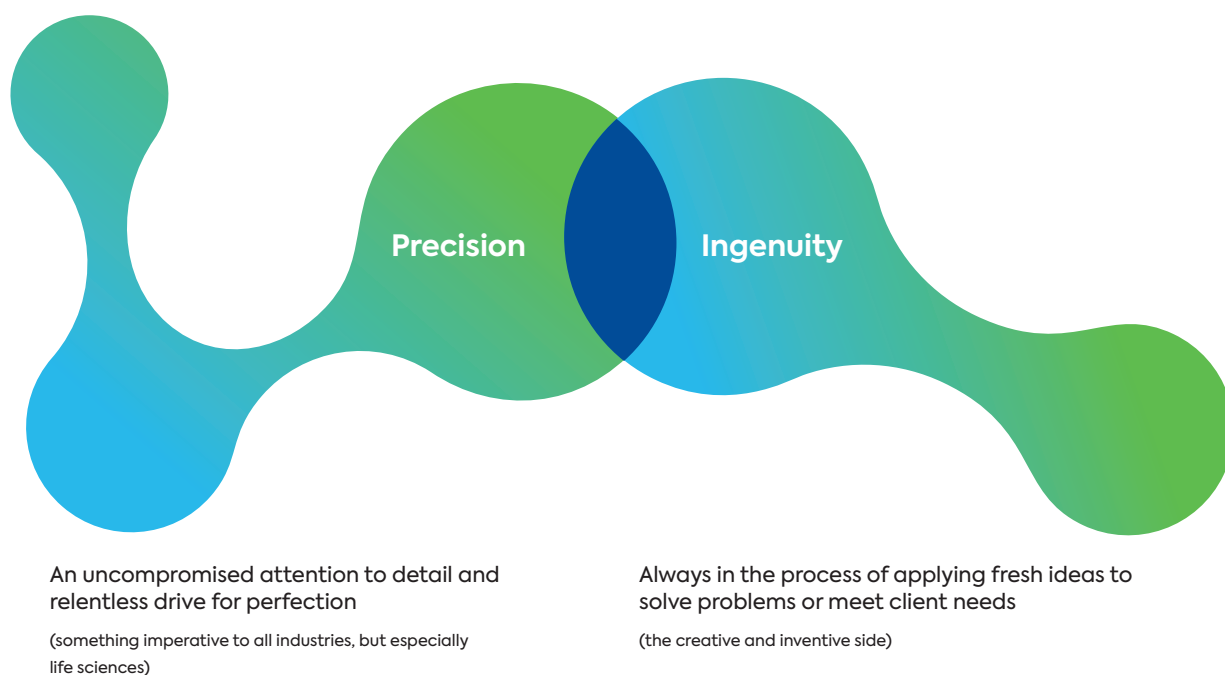
Our value-driven business model

Delivering more with every molecule

In every aspect, with every molecule, we strive to accomplish more. More purity and precision. More stability and confidence. A higher commitment that yields greater outcomes for all our stakeholders. We achieve this through a passionate pursuit for performance, quality, consistency and multifunctionality that every essential industry demands.

Advancing at the intersection

Advancion's strategic framework is built around balancing precision with ingenuity to maximize impact with every molecule we design, develop, produce and sell.



Partnering for sustainable solutions

The specialty ingredients we produce provide unique functionality and distinctive value for our customers across the markets we serve. The value we create and deliver with every molecule is enabled by our highly engaged people and high-performance culture, our dedication to sustainable innovation, and investments in a sustainable supply chain. Together, these create our competitive advantage.

High-performance people and culture

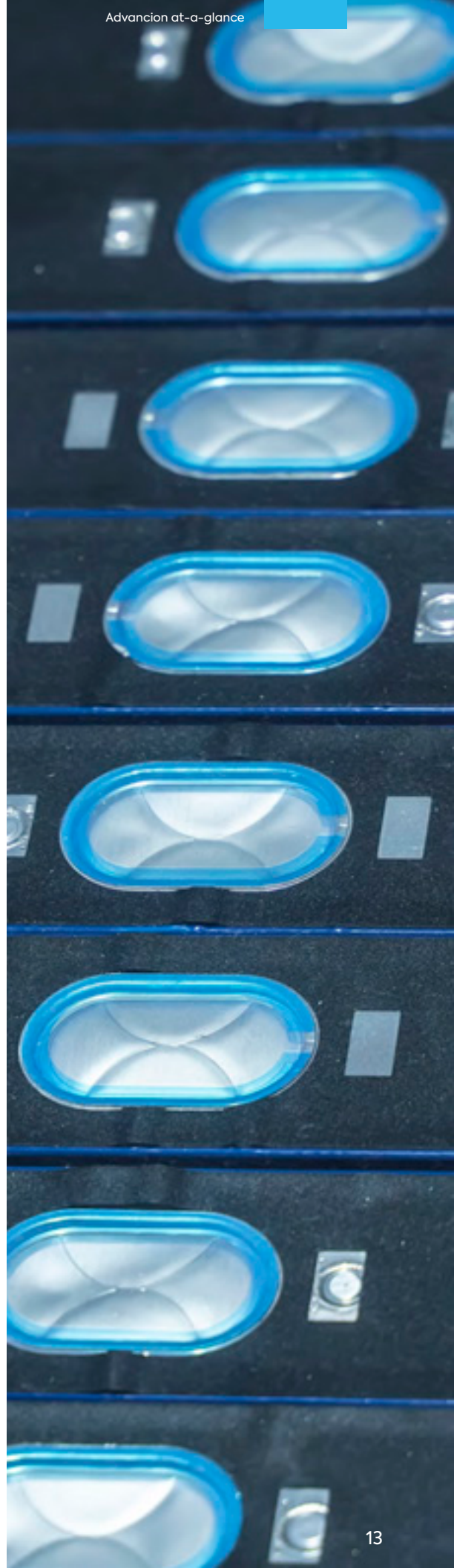
Our sustainable success is enabled by our people, who are at the heart of our competitive advantage. We operate with a high-performance culture based on an uncompromising commitment to safety and performance. We put the fundamental values of inclusivity, diversity and equity into action with everything we do. Our complex manufacturing processes, stringent quality standards, deep customer intimacy and commitment to continuous improvement are driven by the expertise, experience, collaboration and passion of our people.

Supply security

Advancion ingredients are unique and tailored to specific applications, making their availability crucial for various markets, including bioprocessing, pharmaceuticals, personal care, transportation, and electronics. Our investments in dual-source manufacturing capabilities and capacity expansion, together with our robust supply security measures, such as strategic and supplier partnerships and contingency plans, enable us to provide uninterrupted access to our essential ingredients and a security of supply that is unmatched in the industry.

Sustainable innovation

From advanced therapeutics and lithium-ion batteries to natural personal care products and indoor air quality improvement, we make significant investments in application and new product development. This gives us a deep understanding of where our ingredients are (and can potentially be) used to actively address the emerging global trends in life sciences, beauty and personal care, and other essential industries to help make our lives healthier, and more sustainable and comfortable.



Our competitive advantages

High-performance people and culture

- Diversity and inclusivity
- High ethical standards and integrity
- Collaboration and respect
- Curiosity and continuous improvement
- Scientific, operational, market and applications expertise

Supply security

- Single global quality system
- Dual source manufacturing capabilities for all major products
- Strategic supplier partnerships
- Investments in capacity expansion to underwrite future market demand growth

Sustainable innovation

- Positive impact on health and well-being
- Improve the performance and profile of everyday products
- Minimize waste and maximize impact
- Renewable raw materials and energy

What we do

Design and produce high-value consumables and ingredients that help enrich lives and enable our customers to advance the world.

How we do it

Combine precision and ingenuity to deliver more with every molecule.



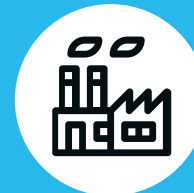
Life Sciences

- Ultra-high purity
- Improved productivity
- Advanced therapy development
- Full traceability and documentation
- High efficacy
- Fully integrated manufacturing
- Unique enabling ingredients
- Supply chain transparency



Personal Care and Consumer

- Natural products
- Clean beauty enabling ingredients
- Broad multifunctionality
- Advanced electronics development
- High-value in use/formulation optimization
- High performance and efficacy
- Environmental emission reduction
- End product stability and consistency



Performance Ingredients

- Waste and energy reduction
- Electrification enabling ingredients
- Transportation lightweighting
- Advanced materials development
- Industrial hygiene and worker safety
- Carbon capture
- High performance and efficacy
- High-value in use/formulation optimization

Quality and consistency

Regulatory compliance

Preferred EH&S profile

**We combine precision
and ingenuity to
deliver more with
every molecule.**





Our global supply chain

Our fully integrated manufacturing operations and global supply chain are central to our ability to safely and reliably manufacture the high-quality, high-performance ingredients our customers need. We utilize over 100 different raw materials from multiple suppliers with whom we have longstanding relationships, helping protect us and our customers against potential supply issues and/or significant price increases. Our ongoing investments in dual-source manufacturing capabilities for all major product lines enhance the supply chain continuity and security of supply we can provide to customers.

Every relationship we build and maintain across the global value chain is built on a solid foundation of responsibility, accountability and integrity. This is outlined in the Advancion Supplier Code of Conduct, which establishes our requirements for suppliers in the areas of environmental, health and safety, labor relations and human rights, and ethical business practices. This Code of Conduct applies to all Advancion suppliers.

Precautionary principle

We employ a risk-based management approach for our wholly owned operations, as well as for the supply chain and the products we sell and distribute. Through various audits and inspections of our own operations, those of certain customers and suppliers, as well as external audits by customers and specific certification bodies, we have adopted a preventative approach and adhere to the principles of continuous improvement. Where deemed appropriate, certain operations are certified to the international management system ISO 9001 and our Ibbenbüren facility is certified to ISO 50001 standards. In addition, Advancion provides cGMP-compliant manufacturing that adheres to current IPEC excipient guidelines for certain products where it is required by external market demand.



Sterlington, Louisiana production facility

2022 by the numbers

500+
suppliers

3,500+
customers

25+
authorized regional distributors

120+
countries where our products are sold

Key spend categories

- Raw materials
- Packaging
- Transportation and logistics
- Capital equipment
- Maintenance services
- Process chemicals and catalysts
- Spare parts and equipment
- Energy and utilities
- Professional services
- Information technology
- Travel
- Engineering and environmental services

Transformational investments in 2022

In 2022, we made significant investments in expanding our product lines and capabilities, most notably to enhance our ability to serve the global Life Sciences and Personal Care markets:

- In February, we completed the expansion of our Sterlington manufacturing facility to include commercial production of TRIS AMINO™ Hydrochloride, which is widely used as a diagnostic reagent and as a downstream processing buffer in the purification of commercial biopharmaceuticals.
- In August, we introduced a new line of natural botanical extracts produced in-house using sustainably sourced plant materials backed by a fully documented and traceable quality system. Botanicals are widely used to enhance the luxury and performance of home and personal care products and cater to increasing consumer preferences for naturally derived ingredients in high-end skin care and hair styling products.
- In October, we launched commercial production of HEPES buffer at our Sterlington facility. HEPES is a multipurpose biological buffer often used to maintain a physiological pH which provides the ideal environment for cells to grow and thrive. It is widely used in bioprocessing and diagnostic markets for applications such as cell culture, tissue culture, protein purification, cell lysis, immunoprecipitation and live cell imaging. HEPES buffer (INCI: Hydroxyethylpiperazine Ethane Sulfonic Acid) can also be used in combination with other ingredients to support the quality and performance of skincare and cosmetics products.



An **Advancion** Company

In November 2022, we acquired Expression Systems, LLC (“Expression Systems”), a leading global manufacturer of cell culture media and related products and services. Founded in 1997, Expression Systems is a well-recognized independent provider of specialized cell culture media and related products with a robust track record of product quality and innovation based on proprietary technology.

The company specializes in baculovirus expression vector system (BEVS) and has deep expertise across the process from gene optimization to protein purification. Expression Systems’ products are utilized primarily by structural biology researchers and biologics manufacturers to produce certain drug candidates, protein-based therapies, vaccines and gene therapies efficiently and cost-effectively. The combination of Advancion and Expression Systems further strengthens our ability to deliver value through the consistent, high-quality ingredients and services essential to all phases of bioprocessing, from early-stage biologics development to full-scale commercial production.









Sustainability platform

Sustainability strategy

Integrating sustainability into our business strategy and operations

We incorporate the essential elements of sustainability into our global business strategy because it is more than just an ethical responsibility. As environmental and social concerns become more prominent, integrating sustainability practices into every aspect of our operations is a key driver of success for our Company, our customers and our communities. It provides a platform for taking a smart and measurable approach to securing long-term success, reducing risks, enhancing brand reputation and driving innovation and competitiveness in an evolving business landscape.

As an organization, we are committed to continuously improving our sustainability performance throughout all our business operations and by supporting our customers' sustainability initiatives through the products and services we provide. We achieve this through implementation of the Advancion Sustainability Blueprint and by encouraging the core tenets of sustainability at all levels of our organization.

Sustainability Pillar	Environmental Stewardship	Sustainable Innovation
UN SDG	  	  
Objective	To improve our operations and environmental footprint through Green House Gas (GHG), waste and water management reductions while maintaining zero injuries and process safety incidents.	To advance innovative solutions, grounded in science, that bring value to our customers and improve the world in which we live.
Goals	<p>We support the understanding and prioritization of Advancion's contributions to addressing the world's challenges in the areas of:</p> <ul style="list-style-type: none"> • Global climate change • Waste reduction • Water conservation • "Safer" chemistries/products • Safe and healthy work environments 	<p>We support safe and sustainable innovation with the following actions:</p> <ul style="list-style-type: none"> • Engaging with our stakeholders to encourage innovative development of our products and services to continually advance sustainable options for our customers and the communities where we operate. • Informing our customers with respect to the functional, safety and environmental performance of our products.

In 2023, Advancion achieved EcoVadis Gold Recognition Level in sustainability performance for the third consecutive year and fifth year overall since we first began participating in the independent assessment program in 2017. EcoVadis is an evidence-based platform adapted to more than 200 industry categories, 160 countries and companies of all sizes.



Advancion's overall 2023 score of 73/100 represents a 5-point increase from the prior year and is based on continuous improvements made by the Company in the four areas of corporate social responsibility (CSR) and sustainability assessed by EcoVadis: Environment, Labor Practices and Human Rights, Fair Business Practices and Sustainable Procurement. EcoVadis Gold rating places Advancion in the top 3% of global companies assessed by EcoVadis in 2023.

Our Sustainability Blueprint

Advancion's Sustainability Blueprint was first introduced in 2021 and consists of four distinct sustainability pillars. Each pillar is aligned to the United Nations Sustainable Development Goals (UN SDG) and guides the review, tracking and impact of our products, operations and supply chain. Performance against our sustainability targets is reported annually in our public Sustainability Report as well as on advancionsciences.com.

Culture of Equity, Diversity and Inclusion



To build a culture where every employee feels accepted, valued and able to contribute to their fullest potential.

We support a culture of diversity, equity and inclusion with the following actions:

- Equitable and fair treatment of our employees and supply chain partners.
- Global Diversity and Inclusion team that can promote understanding of regional/cultural differences.
- Train all global leaders in foundational diversity and inclusion topics.

Socially Responsible Community Partner



To drive positive change through our local community engagement and support.

We support engagement with our stakeholders on a local, national and international level, through formal and informal channels to understand their interests and maintain mutually beneficial relationships with them.

- Routine engagement/consultation with local community stakeholders close to our operations.
- Allow employees time away from work to volunteer on community projects.
- Invest in our communities through charitable, nonprofit contributions.

Our commitment to preserving and protecting the environment

2030 Targets – emissions, energy, waste and water

In 2022, we expanded our commitment to environmental preservation and protection by establishing ambitious 2030 goals aimed at reducing water, waste, energy and GHG intensity. These targets are based on our 2020 environmental metrics highlighted in the table below. Our intensity-based environmental objectives are primarily centered around Advancion's two manufacturing

facilities in the U.S. and Germany. Our target 2030 goals highlight the significance of our environmental initiatives in contributing to customer sustainability objectives as well as enhancing the sustainability of improved product yields and operational efficiencies.

Advancion ESG 2030 targets	Initial KPI target	2020 baseline	Example pathways to reductions
GHG intensity (Scope 1-2)	10% reduction	1.25 (MTCO ₂ eq/MT)	<ul style="list-style-type: none"> Improved product yields and operational efficiencies Investigate purchasing carbon offsets Expand internal methanol and isopropyl alcohol recycling capability
Energy intensity	10% reduction Utilize 25% renewable energy	5,100 (kWh/MT of production) 1.3 % % of renewable energy	<ul style="list-style-type: none"> Installation of solar energy panels in Sterlington and Ibbenbüren Increase purchase of renewable energy
Waste intensity	10% reduction	0.207 (MT/MT of production)	<ul style="list-style-type: none"> Increase recyclable waste Reduce waste through process optimization and material recovery Expand site waste minimization plans Increase beneficial reuse for excess products Install SCRs on boilers
Water intensity	10% reduction	0.006 (megaliter/MT)	<ul style="list-style-type: none"> Reduce once through cooling water Recycle condensate Investigate reuse of effluent water Minimize flowing water for freeze protection

Sustainability governance and implementation

Our Sustainability Blueprint is implemented and overseen by a Sustainability Steering Team, chaired by a member of the Senior Leadership Team. The Sustainability Blueprint is reviewed and updated on an annual basis. In addition, Advancion undergoes a third-party assessment of its progress against sustainability initiatives and programs.

Board of Directors

We operate under the guidance of a nine-member Board of Directors, which includes two independent directors with long-term experience in the Life Sciences market, our Chief Executive Officer, and six Directors representing our two ownership groups who bring deep and varied experience in a variety of relevant operational capacities. Our day-to-day operations in 2022 were managed by an 11-member Senior Leadership Team.

As in prior years, sustainability was given significant focus at the Board level in 2022. Both the Board of Directors and the Senior Leadership Team actively engage on a regular basis to review the Company's safety performance and associated risks, as well as oversee various responsibilities in areas such as sustainability, environmental, health and safety matters, diversity and inclusion, and climate-related issues.

In 2022, the Board reviewed and approved our commitments to specific 2030 targets.

In early 2023 the Board also conducted a review of progress against the delivery of our 2022 sustainability commitments.

Advancion Sustainability Team

The Advancion Sustainability Team plays a crucial role in the organization with responsibility for the strategic development, planning, and oversight of sustainability issues and initiatives across the Company. This team is composed of members from the Senior Leadership Team and functional group leaders, and works under the leadership of the Senior Vice President of Regulatory, Product Stewardship, Quality and Sustainability, a role with executive oversight over all Sustainability programs at Advancion reporting directly to the CEO.

The Sustainability Team is responsible for driving companywide engagement with our sustainability programs and targets, and provides guidance and support to sites, regions and markets to develop action plans to achieve our goals.



As a global company, we strive to demonstrate sustainability by embedding corporate social responsibility into our day-to-day business. The overriding approach to how we identify, analyze and respond to our actual and potential environmental and social impacts is embodied within our overall commitment to sustainability and operating as a good corporate citizen. Our commitment to and policies supporting safety and sustainability are supported by global and regional management systems and procedures.

Sustainable innovation

Positively impacting people, the planet and sustainable business success

At the core of our sustainability strategy is the concept of sustainable innovation, which is built on our investments in continually enhancing product efficiency, performance and profile while developing advanced technologies that align with ever-evolving sustainability-oriented policies and regulations. Across all industries we serve, we actively seek solutions to address complex global challenges, such as natural resource and waste management, the transition to electrification and lightweighting of vehicle components, and life-saving healthcare treatments and advanced therapies.

By collaborating closely with our customers across diverse industries, we gain valuable insights into end-market trends and product development needs. This knowledge empowers us to utilize our capabilities effectively, creating tailored solutions that enhance the efficiency, safety and health aspects of their businesses. Our sustainable innovation roadmap comprises five criteria and focuses on sustainable product development and operational process optimization.

Sustainable criteria	 Energy and Material Input	 Pipeline Acceleration
Objective	Lean Manufacturing	Lean Product Development
Detailed goals	<ul style="list-style-type: none"> • Optimizing production of basic products • Minimizing material input • Using sustainable building blocks • Sourcing renewable energy 	<ul style="list-style-type: none"> • Using modern R&D tools to increase speed • Modelling and simulating new products • Minimizing animal testing • Collaborating with third parties
2022-2023 initiatives (non-exhaustive)	<ul style="list-style-type: none"> • Development and commercialization of natural botanical extracts projects based on lean management principles • Ongoing implementation of solar panels at the Ibbenbüren site 	<ul style="list-style-type: none"> • Development of biobased additives for metalworking fluids that extend the life of end-products • Increased transparency on product safety information and commitment to no animal testing, where possible



Voice of Customer



Innovation and Invention



Waste Minimizing

Positive Impact on Health	Improved End Product Profile	Recycling and Recovering
<ul style="list-style-type: none"> Improving health Enabling advanced medications and lower cost treatments Improving indoor air quality Reducing greenhouse gases 	<ul style="list-style-type: none"> Developing low secondary amine products Offering safe synthetics Reducing the number of hazardous components Enabling low-VOC formulations and green certifications 	<ul style="list-style-type: none"> Recovering and recycling materials Upgrading raw materials Increasing product life and enabling a circular economy Enabling customers to reduce waste
<p>Expansion in Life Sciences:</p> <ul style="list-style-type: none"> Launch of new biological buffers Major product launches of Expression Systems' Rhabdovirus-free cell line and chemically defined cell culture medium 	<ul style="list-style-type: none"> Application development supporting formulation of low-emission zero-VOC coatings 	<ul style="list-style-type: none"> Development of small molecules for pharma products made from recovered waste Partnership with CHWMEG to improve the selection of waste disposal sites Improvement of the management of process chemicals



In 2022, we launched a new portfolio of natural botanical extracts specifically formulated for use in home and personal care products and produced by Advancion in the U.S. using the traditional method of aqueous extraction. Our botanical extracts are made from sustainably sourced plant materials backed by a fully documented and traceable quality system.










Botanical extracts are widely used to enhance the luxury and performance of home and personal care products and cater to increasing consumer preferences for products that use naturally derived ingredients. In addition to naturally derived botanicals, Advancion offers a portfolio of high-purity, multifunctional ULTRA PC™-grade amino alcohols, which deliver robust multifunctional performance and broad formulating latitude across a wide range of home, beauty and personal care applications.

2022 by the numbers

Sustainable innovation

53%

total revenues generated by products that have a positive impact on health, reduce waste or have a better overall environmental profile.

Criteria	% Total 2022 revenue	Market segments
Positive impact on health	~39%	 Biotech  Pharmaceuticals  Personal Care  Agriculture
Improves end product profile	~11%	 Personal Care  Paints & Coatings  Electronics
Waste minimizing	~3%	 Metalworking  Paints & Coatings

Material topics

In 2021, we completed a comprehensive materiality analysis in conjunction with the development of the Company's first Sustainability Report. This, together with the updated reporting guidelines established by the GRI Universal Standards 2021, as well as other external resources, such as the Sustainability Accounting Standards Board's (SASB) materiality matrix for the chemical industry, provided the framework for identifying the GRI topics material to Advancion and our stakeholders included in our 2022 Sustainability Report. In addition, we report out on several topics included in the GRI Standards that were deemed not material or not relevant to Advancion, but where data was readily available.

Of those topics that are deemed materially relevant, their relative importance was evaluated against two criteria: importance to stakeholders and the importance to Advancion (in terms of the significance of the economic, environmental and social impacts). We also took a subjective view of Advancion's ability to impact each topic.

The following topic-specific standards were identified as material to Advancion's internal operations and may also impact stakeholders outside the company on a global scale, such as upstream and downstream entities across our value and supply chain.

The most relevant entities outside of Advancion on which the material aspects of this report may have an impact include:

- Customers who purchase Advancion products.
- End-user customers and consumers who purchase products from our customers that utilize Advancion products.
- Raw material producers and other suppliers from whom Advancion procures products and/or services.
- Local communities in which Advancion operates.

2022 material topic disclosures

Material topic disclosure	GRI standard
Anti-competitive behavior	206
Anti-corruption	205
Customer health and safety	416
Customer privacy	418
Diversity and equal opportunity	405
Emissions	305
Employment	401
Energy	302
Environmental compliance	307
Freedom of association and collective bargaining	407
Local communities	413
Marketing and labeling	417
Non-discrimination	406
Occupational health and safety	403
Socioeconomic compliance	419
Training and education	404
Waste	306
Water and effluents	303

Stakeholder engagement

We understand the potential impact our operations, products, and services have on our wide range of internal and external stakeholders around the world, including customers, investors, employees, consumers and communities, among others. To develop and maintain strong, mutually beneficial relationships, we regularly engage with our stakeholders on local, national and international levels, using both formal and informal channels to understand and respond to their interests.

Through our annual Sustainability Report and other means of one- and two-way communications, we keep stakeholders informed about our sustainability performance. We highly value stakeholder feedback, using it as valuable input to continuously improve our sustainability efforts. Examples of issue-specific stakeholder engagement are provided in the following table, as well as throughout this Report.

Stakeholder group	Customer	Owners and investors	Employees and contractors
Feedback topics and key areas of interest	<p>Product quality and safety</p> <p>Sustainability performance (e.g., GHG emissions, injury rates, etc.)</p> <p>Operational controls, including business ethics and business continuity preparedness</p>	<p>Transparent reporting on business and sustainability performance</p> <p>Engagement on integrated sustainability strategy and key sustainability issues</p>	<p>Proactive and transparent information on Company performance and sustainability progress</p> <p>Opportunities to participate in and influence the Company's and customers' sustainability goals</p>
How we engage	<p>Our network of global commercial, Research, Development and Applications teams (RD&A), and Customer Care teams, as well as our authorized channel partners and distributors representing Advancion around the world.</p> <p>We maintain ISO 9001 certifications covering our manufacturing operations in the U.S. and Germany, and provide specialized product quality certifications, including adherence to current IPEC guidelines for cGMP compliant manufacturing of excipients for select products. Through Expression Systems, we operate a GMP facility compliant to the following:</p> <ul style="list-style-type: none"> Cell Culture Media Manufacturing: 21 CFR Part 820 GMP Contract Services: Guidance for Industry cGMP for Phase 1 Investigational drugs <p>We maintain our Business Code of Conduct and comprehensive business continuity plans, in addition to our annual third-party sustainability assessment conducted by EcoVadis.</p>	<p>We engage with our owners and investors directly to disclose our business and sustainability performance on a regularly scheduled and ad-hoc basis via phone calls, emails, videoconference and in-person meetings, as appropriate.</p> <p>We develop and issue our annual Sustainability Report in line with GRI and other national or internationally recognized standards, where appropriate, and respond to targeted disclosure requests from investor-focused rating agencies.</p>	<p>We develop and distribute targeted and companywide employee communications on business performance as well as developments with our sustainability strategy and initiatives. We also conduct an annual employee engagement survey that encompasses certain elements of sustainability.</p> <p>We maintain a cross-functional companywide Sustainability Steering Team that is responsible for advancing various aspects of sustainability across the organization and seeking input and participation from employees in a variety of initiatives.</p> <p>We develop and track progress against individual, group/team and companywide accountabilities and goals aligned to the overall sustainability strategy and performance metrics for the Company.</p>



Local communities, industry trade associations and NGOs	Suppliers	Government and regulatory agencies
<p>Collaborative partnerships that create shared value for local communities, NGOs, and Advancion</p> <p>Volunteering, sponsorship and charitable giving</p> <p>Opportunities for product/end-product innovation and continuous improvement in the areas of product development, sustainable manufacturing and new approach methodologies (NAMs)</p>	<p>Sustainability-oriented business opportunities</p>	<p>Compliance with laws and regulations affecting our business in the jurisdictions in which we operate around the world</p>
<p>Within the communities in which we operate around the world, we are engaged with many advisory groups, state, local and national business associations, and we participate in countless planned activities and ad hoc conversations on matters of public safety, charitable giving, health and human services, STEM education and more.</p> <p>We are members of many industry, trade and professional associations around the world that drives our understanding and prioritization of developments affecting our business, end users in the markets we serve and our many other stakeholders.</p> <p>We support and participate in many initiatives on a local, national and multinational level sponsored by non-profit and scientific advocacy groups that are focused on advancing sustainable business practices, mitigating risks and supporting sustainable growth.</p>	<p>We strive to achieve mutually beneficial partnerships with our suppliers around the world. We share our commitment to ethical standards and sustainability through our Supplier Code of Conduct and the EcoVadis third-party assessment platform.</p> <p>We engage with current and prospective suppliers via the advancionsciences.com website or directly via site leaders and our Strategic Purchasing organization.</p>	<p>We engage with regulators and legislative policy makers at numerous local, national and international levels through a variety of channels and functions, including manufacturing site leaders, regional business leaders, corporate communications team, trade associations and legal counsel.</p>

Local community engagement, impact assessments and development programs

One of our most significant stakeholder groups encompasses the communities in which we are active, particularly our manufacturing facilities in Sterlington and Ibbenbüren where we hold integral positions within these communities. Our dedication to being a responsible corporate citizen and a supportive neighbor is reinforced through active community engagement and outreach.

This commitment comes to life through our role as a preferred employer within these communities and where we offer substantial employment opportunities, internships and comprehensive training and development initiatives. We also collaborate closely with local first responders to bolster emergency response capabilities and facilitate practical training initiatives.

Across all our global facilities, we promote employee volunteers in their endeavors to foster community development and partner with local charitable organizations to secure funds for medical research and address local health and social needs. Our commitment extends to nurturing the education of young students and kindling the aspirations of the future generation's scientific leaders. This is accomplished through sponsorships and investments in STEM education programs.

Membership associations

We are active participants in the numerous end markets in which we participate and maintain memberships and affiliations with trade associations and non-profit organizations around the world to support global sustainability initiatives and engage regularly with outside stakeholder groups. We actively support and participate in a diverse range of programs and initiatives with a local, national, and global focus on industry, consumer trends and sustainability. Our memberships include, but are not limited to:

- American Chemistry Council (ACC)
- American Coatings Association (ACA)
- Association for the Advancement of Alternatives Assessment (A4)
- Biocom California
- California Life Sciences
- Change Chemistry (formerly Green Chemistry and Commerce Council)
- Drug, Chemical and Associated Technologies Association (DCAT)
- Health and Environmental Sciences Institute (HESI)
- Independent Lubricant Manufacturers Association (ILMA)
- Michigan State University Research on Ingredient Safety (CRIS)
- New York Society of Cosmetic Chemists (NYSCC)
- Society of Tribologist and Lubricant Engineers (STLE)

2022 by the numbers

Stakeholders

In 2022, numerous stakeholder groups around the world maintained a relevant interest in our long-term sustainability, including, but not limited to:

433

employees (appx)

3,500+

customers

100+

Advancion contractors

500+

suppliers

- Numerous local communities in which we operate
- Members of chemical industry trade unions around the world
- Our investors and the broader investment community
- Relevant government and regulatory agencies

The background features a dark blue area on the left and a purple area on the right, separated by a diagonal boundary. Large, overlapping circular shapes in both colors are positioned at the bottom and right sides of the page.

People and culture

High-performance people and culture

Our people are the driving force behind Advancion's high-performance culture – a culture built on an unwavering commitment to safety and performance, and a culture that embraces inclusivity, diversity and tolerance in all aspects of our operations. This is our competitive edge.

We embrace an innovation-driven growth mindset. We actively seek out and celebrate our differences and welcome diverse talent into our organization. However, our mission goes beyond just attracting varied perspectives; each employee plays a crucial role in fostering an inclusive company culture. We ensure that everyone is valued equally and treated fairly, enabling all individuals to excel in a safe and respectful environment.

Advancion upholds a policy of fair recruitment, hiring, training and promotion based on business needs and individual qualifications, without any discrimination based on race, color, religion, sex, sexual orientation, gender identity, marital, civil union or domestic partnership status, national origin, disability, military and/or veteran status, or any other status protected by applicable laws or regulations. We have a zero-tolerance approach to any actions that compromise the well-being of our employees or our core values.

2022 by the numbers

Our People*

*As of December 31, 2022

433

full-time employees

114

contractors

7

part-time or temporary employees

40%

total percentage of full-time employees covered by a collective bargaining agreement

Our people

As of December 31, 2022, Advancion employed approximately 433 full-time employees, and 114 contractors, who primarily support the manufacturing, packaging and warehousing operations in Sterlington.

Portions of our labor force are covered by collective bargaining agreements. As of December 31, 2022, approximately 40 percent of our employees were covered by a collective bargaining agreement. This includes 100 employees at our Sterlington, Louisiana plant represented by the United Steelworkers Union, and 73 employees at our Ibbenbüren plant who are employed under a tariff agreement.

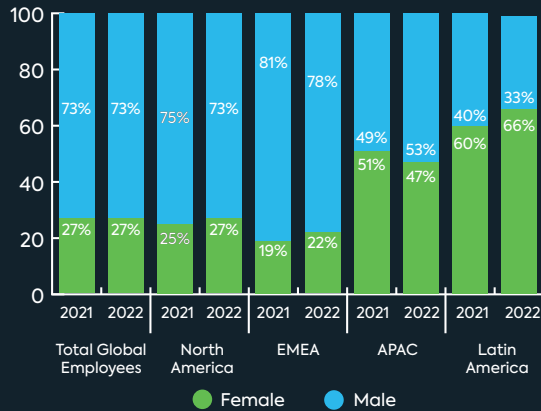
Advancion diversity, equity and inclusion data*

*As of December 31, 2022. Data includes employees from November 2022 Expression Systems, LLC acquisition and excludes interns, temporary workers/contractors and part-time employees.

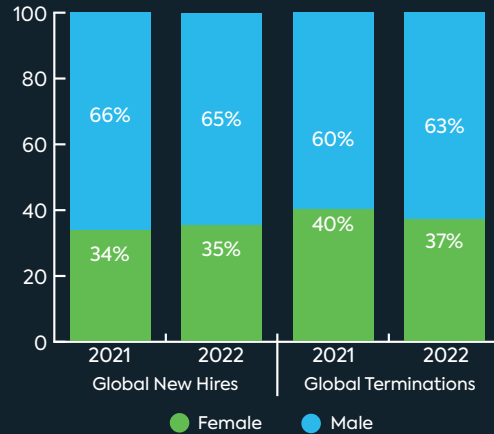
New employee hires and employee turnover

The overall voluntary resignation rate for Advancion in 2022 was 11%, compared to 9% in 2021.

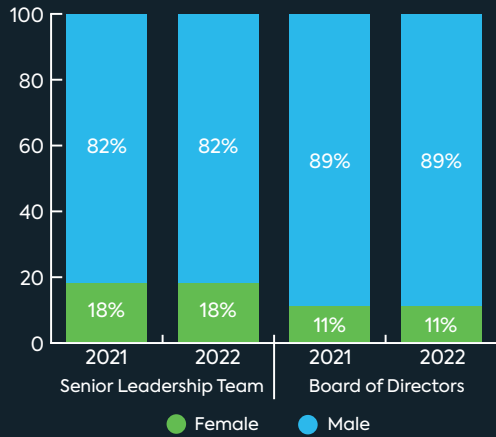
Gender, Global Full-Time Employees



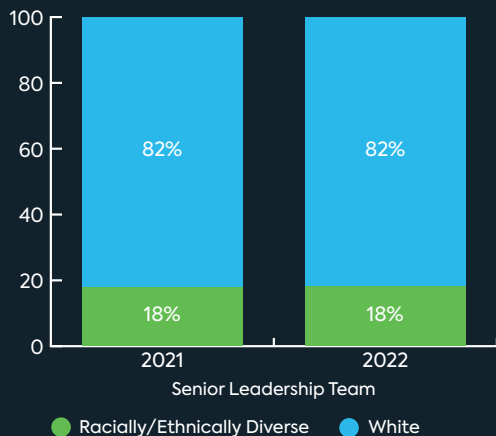
Gender, New Hires & Terminations



Gender, Global Governance Bodies



Racial & Ethnic Diversity, Senior Leadership Team



Employee health and wellness and other benefits programs

Our employee benefits programs go beyond simple compensation and play a crucial role in attracting, retaining and engaging a talented and motivated workforce within our organization.

We provide a robust employee benefits package to all full-time U.S.-based employees and offer similar, market-competitive benefits programs to employees at our international locations in compliance with local employment laws. These programs provide a range of non-salary offerings that address the overall well-being of employees and contribute to their job satisfaction and overall quality of life and include, but are not limited to:

- Medical
- Dental
- Vision
- Health Savings Account
- Flexible Spending Account
- Life Insurance
- Supplemental and Dependent Life Insurance
- Flexible Work Schedules
- Paid Time Off
- Employee Assistance Program
- Savings and Investment
- Retirement Contribution Plan
- Accident Insurance
- Business Travel Insurance and Assistance
- Parental Leave
- Short- and Long-Term Disability Insurance
- Remote Work Options



Parental leave

Our parental leave policy is designed to positively influence the experience of new parents or those expanding their families while enhancing our ability to attract and retain top talent. Since 2021, our global parental leave policy has included paternity and adoptive leave for all full-time employees.

	2021	2022
Total number of full-time employees who were entitled to parental leave, by gender	389	433
Male	286	317
Female	103	116
Total number of employees that took parental leave, by gender	2	3
Male	1	1
Female	1	2
Total number of employees that returned to work in the reporting period after parental leave ended, by gender	2	3
Male	1	1
Female	1	2
Total number of employees that returned to work after parental leave ended that were still employed 12 months after their return to work, by gender	2	3
Male	1	1
Female	1	2

Data includes employees from November 2022 Expression Systems, LLC acquisition and excludes interns, temporary workers/contractors and part-time employees.





Employee training and skills development

We believe that providing employees with diverse training experiences can spark creativity and innovative thinking. Exposure to new ideas and perspectives encourages employees to approach challenges from different angles.

We provide comprehensive local, site- and job-specific training and development programs, as well as an online Learning Management System (LMS) that tracks some, but not all, global training covering a vast array of topics – from material handling to hazard identification to system and compliance training. The training data represented is primarily representative of manufacturing and operations personnel and not fully representative of all training conducted globally.

	2021	2022
Total training hours	27,125	25,548
Average training hours per full-time employee	70	58
Average training hours by gender		
Male	128	72
Female	25	23

2022 by the numbers

Employee training and skills development

25,548

hours of training completed in 2022

58

average number of training hours per full-time employee

Building a culture based on high performance and accountability

In 2022, all eligible full-time employees* participated in our annual accountability development and/or performance review process, which is designed to:

- Define success for Advancion and for each employee.
- Develop achievable targets and plans that are within our control.
- Focus on execution enabled by fact-based decision making and clear accountability.
- Drive proactive discussions between managers and employees on career objectives and provide a diverse range of experiences to the employee base.
- Support processes and policies for employee recognition and reward.
- Encourage ongoing formal and informal coaching.

Employees and managers are expected to engage in:

- An annual accountability development session where employees and their manager create and approve objectives, competencies and development plan for the fiscal year.
- A mid-year review between managers and employees to verify alignment, provide support and confirm progress on overall plan.
- A year-end review to confirm progress on overall plan and competency performance during the year.

* Data excludes employees from November 2023 Expression Systems, LLC acquisition, interns, temporary workers/contractors and part-time employees. Further breakdown of data by gender or region is not yet readily available.



Freedom of association

We respect and honor the freedoms of our employees and operate in full compliance with relevant workplace laws and regulations in the states and countries in which we operate, including those associated with organized labor activities. We provide competitive wages and benefits for our employees and promote open dialogue and reasonable workplace practices and policies without the intervention of third parties.

For Advancion locations with employee groups that are unionized and/or covered by a collective bargaining agreement, we recognize the respective employee representative group (e.g., union) as the exclusive representative of the employees in the bargaining unit and complies with all resulting legal and contractual obligations.





Ethics and compliance

Ethics and compliance

Operating at the highest level of ethics and compliance are not only legal and regulatory obligations but also essential components of our sustainable business strategy. They contribute to Advancion's overall reputation, culture and ability to navigate emerging challenges while fostering trust among our stakeholders. Our commitment to ethics and compliance excellence also creates a positive work environment that values fairness, integrity and respect, helping to enhance employee morale and increase employee engagement and productivity.

As a company, we expect the highest level of integrity and ethical behavior from our employees and representatives throughout our global operations. At hiring, all our employees worldwide are required to read, understand and acknowledge the standards, procedures and policies presented in the Advancion Code of Business Conduct, Anti-Corruption, Respect and Responsibility and other ethics- and compliance-related policies. These policies, as well as our expectation for 100-percent compliance with all applicable international laws, regulations, rules, standards and regulations in the geographies in which we operate, are regularly reinforced with employees through a variety of channels, including a globally accessible employee intranet, employee training requirements, annual performance reviews, global CEO town halls and internal announcements, to name a few.

Employees must report all suspected ethics violations promptly through one of the various channels available to employees and the public. Employees and the general public can report ethics concerns and suspected misconduct through management, HR and the [advancionsciences.com](https://www.advancionsciences.com) website. We treat all reports of ethical concerns as confidential. Individuals reporting concerns can also request to remain anonymous, and the Company will protect the reporter's anonymity.

2022 by the numbers

Our commitment to compliance

0

number of:

- Confirmed incidents of discrimination, and there were no legal actions initiated against Advancion or any employee related to discrimination.
- Confirmed cases of corruption, and there were no legal actions initiated against Advancion related to anti-competitive behavior, anti-trust or monopoly practices.
- Significant fines or non-monetary sanctions for non-compliance with environmental, social or economic laws and/or regulations.
- Fines, penalties or warnings resulting from incidents of non-compliance with regulations or voluntary codes concerning the health and safety impacts of products and services, or their marketing, packaging and labeling.
- Substantiated complaints relating to breach of customer privacy and/or loss of customer data.
- Violations involving the rights of indigenous people.
- Confirmed instances of the use of corporate funds to make financial or in-kind political contributions, directly or indirectly. Advancion policy explicitly prohibits the use of corporate funds for political contributions.
- Cases of non-compliance for our product and services or any labeling non-compliance.
- Products recalled by regulatory authorities in 2022.
- Incidents of non-compliance of marketing communications.

In addition, we abide by all applicable child labor laws and do not employ underage workers in our worldwide operations, nor do any of our operations employ forced or compulsory labor. We also expect our supply chain partners to abide by all international regulations and conventions relating to child and forced labor.

Environmental, health and safety (EH&S)



A commitment to zero incidents

We set ambitious short- and long-term environmental, health and safety (EH&S) goals, driven by the principles of continual improvement. These goals are transcribed at regional levels as objectives, targets and improvement plans. Performance data is collected monthly from all our operational and office locations and progress against set targets is tracked through senior management and Board-level reviews.

Advancion operates in diverse geographies, each with different legislative expectations. However, we set a consistently high, global environmental, health and safety standard for all our manufacturing, research and commercial operations, regardless of their geographic location.

Advancion's EH&S Policy is implemented through global and regional policies and standards modeled on the international standards ISO 14001, ISO 18001, and ISO 9001, with third-party certification obtained where appropriate.



2022 by the numbers

Global safety performance

0.65

total recordable injury rate (2021: 0.65)

0

tier 1 process safety incidents (2021: 1)

0.22

lost-time incident rate (2021: 0.22)

0

motor vehicle accidents (2021: 0)

0

work-related illnesses (2021: 0)

916,179

total employee hours worked (2021: 919, 552)



Occupational health and safety management system

To ensure operational health, safety and well-being we operate under the Advancion Discipline Management System (AMS). The AMS organizes a set of common elements in an effective Plan/Do/Check/Act cycle as a “Common Management System” – a simple, common-sense system that will benefit Advancion and its stakeholders.

The AMS is the foundation from which specific policies, processes and procedures aimed at the safety and security of employees and the environment are created and implemented. Several additional guidelines cover many safety and security issues, such as fire and explosion precautions, the handling of hazardous substances, and the identification of risks associated with chemical production. In addition, we adhere to the Precautionary Principle when dealing with risks where scientific understanding is incomplete. The AMS also ensures compliance with applicable

regulatory requirements such as those from the U.S. Occupational Safety and Health Administration (OSHA).

Advancion is certified and adheres to the Responsible Care® Code of Conduct and its Sustainability Code of Conduct. As part of the certification process, we report on several environmental health and safety and sustainability metrics annually.

NOTE: We define contingent staff per OSHA requirements detailed in 29 CFR 1904.31 as those staff who are not employees, but who are under the direct supervision of Advancion on a day-to-day basis. Other on-site contractors are not included in this definition if they have a direct Supervisor on-site. Contingent staff are included in our safety reporting data for 2022.

Hazard identification, risk assessment and incident investigation

The AMS serves to avoid work-related illnesses and regulates the identification of occupational health hazards for all Advancion workplaces. The AMS includes defined revision criteria and cycles. For the control measures, the STOP principle must be applied, which defines the hierarchy of measures to be taken to avoid incidents. A comprehensive internal audit system ensures the quality of the end-to-end process and triggers continuous improvement.

To report work-related hazards or near-miss incidents, our employees can either approach their supervisors directly or submit a report using SpheraCloud, a software-based incident reporting and tracking tool. If employees identify a hazardous situation, they are trained to stop the activity and report to their supervisor. The application of this rule is part of the Advancion Safety Program training and included in on-site orientation training.

Following a work-related incident, we conduct an investigation to identify root cause and associated corrective actions to avoid recurrence. Advancion's internal documents provide guidance on managing investigations, including ensuring that they are

conducted using the Apollo Root Cause Analysis methodology. Incident, root causes and corrective actions are documented using the Apollo tool and then tracked to completion in SpheraCloud. According to internal processes, Lost-Time Accident and Restricted Work case reports are only closed if an appropriate investigation report is available and filed. Incident reports are closed once that site or department leader verifies that all corrective actions have been taken and that they will prevent recurrence.

As part of our Advancion Audit Program, internal EH&S experts from each site regularly conduct checks of workplace and process safety standards by assessing the facilities and establishing corrective measures to tackle the main risks. Process Hazard Analyses (PHAs) are conducted periodically by competent personnel at the sites. The PHAs are reviewed at least every five years and updated in the event of modifications. Whenever modifications are made within our manufacturing facilities, management of change (MOC) procedures are applied, ensuring that no new or additional risks are introduced without being assessed and controlled.



Occupational health services

The promotion of workplace health and well-being is a local responsibility that each of our operating locations address with tailored programs. Exceptions are the company-wide Parental Leave Policy and previously cited global standards that ensure a healthy and safe working environment for all employees regardless of their work location.

Our manufacturing sites in Sterlington and Ibbenbüren have an on-site occupational health nurse and/or visiting physician who provide risk-based medical surveillance clearances, care for work-related illness and injuries and, as appropriate, assist with non-occupational illness and injury management. Facilities without an on-site medical professional work with local clinics to follow applicable surveillance protocols and manage work-related illness and injuries. All facilities maintain stocked first-aid kits, automated external defibrillators (AEDs) and train volunteer medical responders in first aid/CPR/AED to assist in injuries and illnesses that may occur at the location.



Our third-party Employee Assistance Program (EAP) offers free counseling by external specialists in the event of stress (whether work-related or not), burnout, personal crisis, drug addiction or other challenging circumstances. Certain Advancion locations also provide voluntary smoking cessation programs to support employees. For drug addiction, Advancion has procedures for treatment through medical plans and in-hospital care, if necessary. Flexible working arrangements can be made and apply to both work-related stress management and unrelated extenuating circumstances.

Worker participation, consultation and communication on occupational health and safety

Each of our locations has an established occupational protection committee or safety team in which employees can participate. Contractors and temporary employees are subject to the same policies, guidelines and regulations as full-time employees. Each site holds periodic safety meetings for participation by employees at large. Employees, contractors and temporary workers can also raise issues through participation in the periodic safety meetings, with a member of the safety team, or anonymously via the site nurse (where available) or EH&S Department.

Worker training on occupational health and safety

All new employees and contractors are provided with initial instructions regarding the safety-relevant aspects of their workstations and roles. Subsequently, employees are required to participate in safety-awareness meetings held on a regular basis and recurrent refresher training on a frequency depending on the regulatory requirements as well as specific role- and site-specific hazards.

Training is also available through customized training courses for certain areas of work, including offices in production areas and at development units. In addition to face-to-face and classroom-style training, Advancion is increasingly using interactive media such as videos, various information portals and online training courses to drive employee's awareness of ergonomics and other occupational safety issues.



Promoting employee health

Many of our environmental, health and safety programs are designed to motivate employees to develop healthy lifestyles and reinforce their sense of personal responsibility regarding their health. At the height of the COVID pandemic, an area of focus was promoting accurate and timely information related to the safety of vaccines and mitigation strategies to reduce the likelihood of individuals and their families contracting the virus. In 2022, our Sterlington site nurse worked with a local physician to host several “Lunch-and-Learn” programs to provide information about general health-related topics. These topics are regularly included in site safety meetings. In 2022, we also organized a visit of a mobile health screening bus to the Sterlington site that provided a free AngioScreen® for employees to utilize as an early warning for any heart-related issues. We continue to look for unique ways to promote health for both work and non-work-related topics to all our global employees.

We recognize the significant importance of work/life balance in contributing to the well-being of employees and provide a wide range of flexible working arrangements, such as flextime, part-time work or working from home, as well as the Global Parental Leave Policy implemented in 2021.

Work-related injuries

We consistently achieve a best-in-class overall safety performance specifically relating to injury rates and lost-time incidents that are dramatically lower than the U.S. Occupational Safety & Health Administration (OSHA) averages. Our employees around the world work to eliminate on-the-job accidents in several ways, including:

- Accident prevention efforts through planning
- Process and facility controls
- Safety training
- Safety committees
- Safety and environmental audits
- Post-incident investigations and follow-up steps
- Actively Caring program, where individuals are encouraged to intervene and correct unsafe conditions

All Advancion manufacturing facilities evaluate site specific EH&S risks through a hazard and risk assessment. The manufacturing facility in Sterlington has also been evaluated under the Responsible Care Management System (RCMS). The employee and process safety metrics are tracked closely and thoroughly investigated to prevent recurrence. We utilize the OSHA-established calculation methodology to report recordable incident rates that are comparable across any industry or group. Using this standardized base rate, any company can calculate their rate(s) and get a percentage per 100 employees.

Employee and Contingent Staff Safety Metrics	2022	2021	2020	2019
Work-Related Fatalities	0	0	0	0
Lost-Time Incident Rate	0.22	0.22	0.21	0.51
Lost-Time Injuries	1	1	1	2
Recordable Rate	0.65	0.65	0.21	0.51
Recordables	3	3	1	2
On-Site Independent Contractor Safety Metrics	2022	2021	2020	2019
Work-Related Fatalities	0	0	0	0
Lost-Time Incident Rate	0	0	0	0.92
Lost-Time Injuries	0	0	0	1
Recordable Rate	0	0.86	0	0.92
Recordables	0	1	0	1
<i>*Note: Recordable rate = (# of recordables *200,000) / Hours Worked. Lost Time Incident Rate = (# of LTI *200,000) / Hours Worked</i>				
Process Safety Metrics	2022	2021	2020	2019
Tier 1	0	1	0	0
Tier 2	2	2	0	3

Natural resource management and environmental preservation

Energy, water, emissions and waste

Our global Sustainability Strategy and EH&S Management System create the foundation for our approach to effectively managing and preserving the world's natural resources. We have established ambitious environmental, health and safety objectives, both short and long term, driven by our unrelenting focus on continuous improvement. These objectives are translated into actionable goals, targets and improvement strategies at regional and local levels.

At the forefront of our efforts to reduce emissions and energy usage are local plant and facility managers. These key employees assume the responsibility of conceptualizing, developing and executing continuous improvement projects. These initiatives aim to curtail waste production and optimize resource consumption in production processes, raw materials, energy and water. Simultaneously, these projects strive to enhance production yields and drive cost efficiencies.

Routine data collection from all operational and office sites ensures a comprehensive understanding of performance, and progress towards established targets is meticulously monitored through senior management assessments supported by independent third-party validation, where applicable. We also actively engage with local and national programs to assess and oversee our energy consumption, greenhouse gas emissions, waste generation and water utilization.



2022 by the numbers

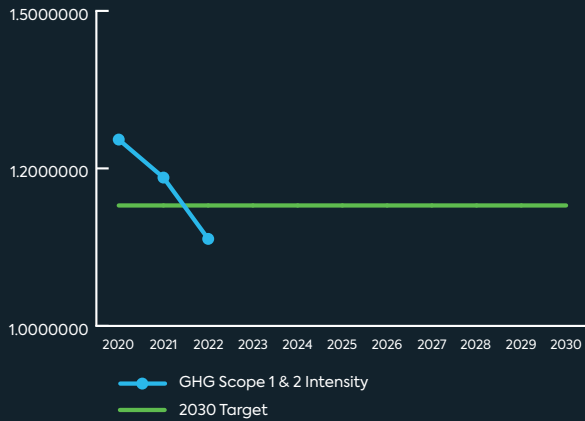
Measuring progress toward our target 2030 goals – emissions, energy, waste and water*

*Versus 2020 baseline

-15.1%

reduction in GHG Scope 1&2 intensity
(MT CO₂eq/MT production)

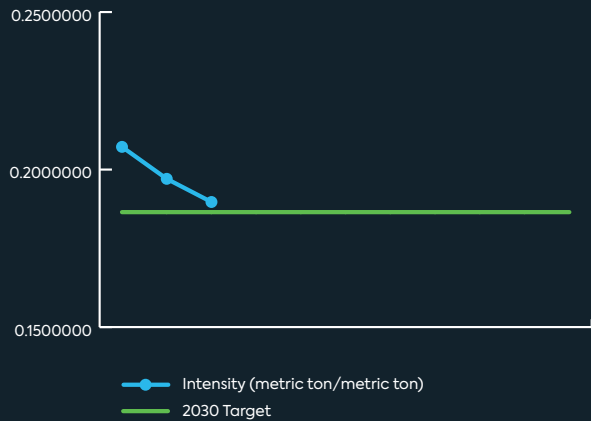
Avancion GHG Intensity



-8.4%

reduction in waste intensity
(MT/MT production)

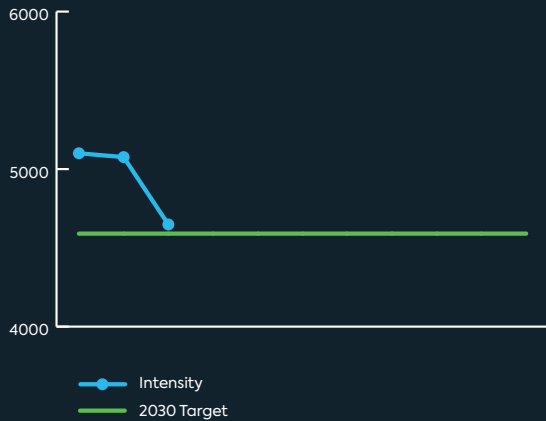
Avancion Waste Intensity
(MTs/MT of production)



-8.9%

reduction in energy intensity
(kWH/MT production)

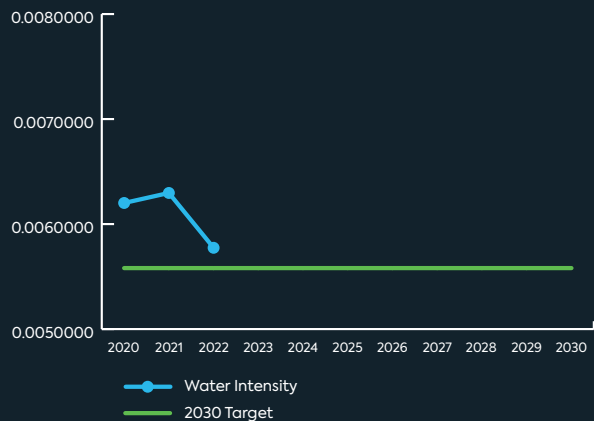
Avancion Energy Intensity



-6.9%

reduction in water intensity
(MegaLiter/MT production)

Avancion Water Intensity



Energy consumption

We purchase off-site electricity for our manufacturing plants in Sterlington and Ibbenbüren. Additionally, we utilize natural gas for the generation of plant steam. The total energy consumption metric includes the total for both purchased electricity and natural gas. Energy intensity is calculated by dividing the total energy consumption within the organization, which includes both purchased electricity and natural gas, by the total metric tons of production during the year. Although total energy consumption increased, the decrease in energy intensity highlights our ability to utilize energy more efficiently at the higher production rates in 2022. While we have not calculated specific reductions for energy requirements of products and services, the reduction in overall energy intensity demonstrates that products are being manufactured in a manner that requires less energy overall.

Energy Metric	2022	2021	2020
Total Energy Consumption (kWh)	728,142,325	716,823,929	662,660,483
Total Production (MT)	156,646	141,211	129,922
Energy Intensity (kWh/MT production)	4,648.32	5,076.26	5,100.45
Energy Source (kWh)	2022	2021	2020
Total Natural Gas for Fuel	626,328,735	616,837,981	568,872,785
Electricity Purchased and Consumed	101,813,590	99,985,948	93,787,698
Purchased Electricity from Non-renewable Energy Sources	92,616,715	90,283,330	85,114,761
Total Purchased or Self-Generated Renewable Energy	9,196,875	9,702,618	8,672,937
Total Energy Consumption	728,142,325	716,823,929	662,660,483



Reducing energy consumption

One of our primary areas of focus is on increasing the quantity of renewable energy purchased for our facilities, where available. In 2022, our Ibbenbüren manufacturing facility sourced 65% of its purchased electricity from renewable energy sources. In summer 2023, we completed installation and start-up of a new solar electricity plant at our Ibbenbüren facility. With 14,640 individual solar panels in the array, the new solar electricity plant is expected to generate roughly 5 GWh/year. Electricity not consumed by the plant will be sold back to the local utility grid. At Sterlington, our Energy Savings Team identified additional opportunities for reduction of energy consumption at our largest manufacturing facility, such as optimizing the use of the existing on-site boilers.



Protecting water as a shared resource

Water availability and quality is not only vital for our manufacturing operations, it is also essential for the health and well-being of our surrounding communities. We are committed to protecting available water supplies as well as treating effluent water prior to discharge in accordance with all applicable regulations.

At our Sterlington manufacturing facility, water is withdrawn from the nearby Ouachita River and treated prior to being used in our processes. At the Ibbenbüren manufacturing facility, water is obtained from the city water supply grid and reused through a recirculating water system in a closed loop through the plant's cooling towers. All waste waters are sampled to ensure compliance with applicable regulations prior to discharge.

Management of water discharge-related impacts

We maintain compliance with all applicable effluent quality standards through management systems, including a robust management of change process, incident reporting tool and operating procedures. Our manufacturing sites in Sterlington and Ibbenbüren are designed to include secondary containment measures to prevent chemical releases from impacting the surrounding environment, including the groundwater and nearby surface waters. The sites are also equipped with a variety of administrative, treatment and operational controls to treat all wastewater parameters to permitted limits prior to discharge.

We utilize a third-party resource, "Aqueduct Baseline Water Stress," from resourcewatch.org to classify the water stress in the areas near our manufacturing plants. Our Sterlington plant is located in an area deemed low-medium water stress and our Ibbenbüren plant is located in an area deemed medium-high water stress. These rankings indicate that water stress is not currently a concern in these areas. However, this will be periodically re-evaluated as the data is updated.



Water availability and quality is not only vital for our manufacturing operations, it is also essential for the health and well-being of our surrounding communities.

Responsible water withdrawal

Our Sterlington manufacturing facility withdraws fresh water from the nearby Ouachita River. Additionally, both manufacturing sites utilize potable water from the local municipality. Water withdrawal at the Sterlington plant is evaluated using EPA's Clean Water Act 316(b) regulations that includes a thorough analysis of river conditions and potential impacts from the river water intake system.

The analysis is reviewed by the state regulatory agency and applicable standards for the cooling water towers are included in the facility Louisiana Pollutant Discharge Elimination System (LPDES) permit. We aim to conserve water by promptly responding to water leaks that may occur in the water intake systems and associated piping for both the water plant and the firewater system. Additionally, our manufacturing teams closely manage cooling water tower cycles to ensure that water is reused in the process as many times as possible.

Water Withdrawal (in megaliters)	2022		2021		2020	
	Fresh Water (≤ 1,000 mg/L TDS)	Other Water (≤ 1,000 mg/L TDS)	Fresh Water (≤ 1,000 mg/L TDS)	Other Water (≤ 1,000 mg/L TDS)	Fresh Water (≤ 1,000 mg/L TDS)	Other Water (≤ 1,000 mg/L TDS)
Surface Water	3,014	-	3,055	-	2,612	-
Third-Party Water	149	-	152	-	153	-
Total Withdrawal	3,163	-	3,207	-	2,765	-

Responsible water discharge

Water discharge at our manufacturing facilities includes both treated process wastewaters and stormwaters. The Ibbenbüren plant discharges process waters and stormwaters that may fall in the process area containment to their on-site aeration pond before discharging treated water back into the city wastewater grid, where it is returned to the city water treatment plant.

Priority substances of concern for both manufacturing sites are set by the local regulatory agencies. At Ibbenbüren, the local regulations include controlling waterborne diseases such as Legionnaires, as well as ensuring that applicable chemicals such as amines have been properly treated. At Sterlington, the outfalls are defined in the LPDES permit set by the state regulatory agency. The permit includes parameters that are analyzed continuously such as flow and pH, weekly parameters such as Biological Oxygen Demand (BOD) and Total Suspended Solids (TSS), and parameters that may only be measured quarterly, semi-annually or annually such as metals, volatile organic compounds (VOCs) and biomonitoring.

Water Discharge (in megaliters)	2022		2021		2020	
	Fresh Water (≤ 1,000 mg/L TDS)	Other Water (> 1,000 mg/L TDS)	Fresh Water (≤ 1,000 mg/L TDS)	Other Water (> 1,000 mg/L TDS)	Fresh Water (≤ 1,000 mg/L TDS)	Other Water (> 1,000 mg/L TDS)
Surface Water	-	2,306	-	2,367	-	2,008
Third-Party Water	-	60,690	-	73,423	-	68,062
Total Discharge	-	2,366	-	2,440	-	2,076

Responsible water consumption

We define water consumption by adding water withdrawal from river water intakes and third-party sources and then subtracting water discharged back to the river through treated process wastewater outfalls. There is a small portion of stormwater included in the treated process wastewater discharge outfalls. However, we are not currently able to quantify and separate that water source. Our Sterlington facility has two outfalls solely designated as stormwater outfalls and Ibbenbüren has one such stormwater outfall. These totals are not included in the consumption calculation. Our Sterlington plant does include some features designed to reduce stormwater discharge as well as utilizing gravel cover in many areas of the plant to minimize impervious areas in order to allow for more groundwater recharge. Overall, utilizing the water consumption in megaliters divided by the chemical production in metric tons, yields the annual water intensity for Advancion. The water intensity has been reduced by 6.9% in 2022 as compared to the 2020 baseline. This decrease is likely a result of utilizing water resources more efficiently with higher production rates.

Water Consumption (in megaliters)	2022	2021	2020
Sterlington	857	840	758
Ibbenbüren	48	49	48
Total Consumption	905	889	806
Water Intensity (megaliter/metric ton)	0.00577741	0.0062963	0.0062009



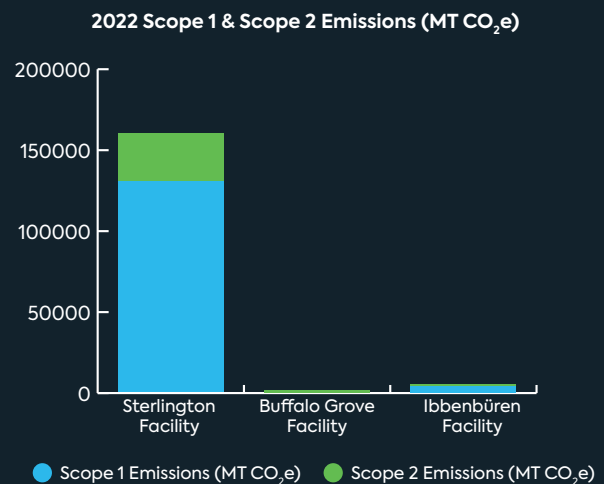
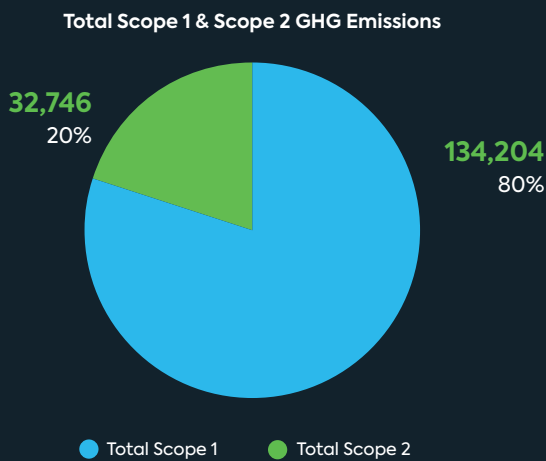


Emissions

Energy, greenhouse gases (GHG) and emissions are managed through the Responsible Care Management System and applicable regulatory statutes. We utilized a third party to verify Scope 1 and 2 GHG calculations for 2021 and 2022 as well as Scope 3 GHG emissions for 2021 and 2022. These calculations are used in defining opportunities to reduce GHG emissions together with workgroups of outside experts as well as in-house teams. Several projects have already been implemented, such as changing operations to utilize only two of the three boilers at the Sterlington manufacturing facility as well as installing solar panels at the Ibbenbüren manufacturing facility.

2022 by the numbers

Total Scope 1 and Scope 2 GHG emissions





Ibbenbüren, Germany production facility

Direct (Scope 1) GHG emissions and energy indirect (Scope 2) GHG emissions

The GHG inventory includes Scopes 1 and 2 GHG emissions for three Advancion facilities – the Sterlington facility, the Ibbenbüren facility and the Buffalo Grove corporate headquarters. We utilize the GHG accounting methodology from the GHG Protocol developed by World Resource Institute (WRI) and World Business Council on Sustainable Development (WBCSD). The primary GHG compounds accounted for in the current GHG inventory include carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O). (NOTE: fluorinated compounds are not a part of Advancion's operations and were therefore omitted.)

GHG emissions are represented in metric tons of CO₂ equivalent (CO₂e), which are calculated as the sum of all three GHG compounds multiplied by their Global Warming Potentials (GWP). In the 2021 GHG Inventory, CO₂e is calculated using the 100-year GWPs from the Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC) (Myher et al., 2013) while the 2022 GHG Inventory utilizes the Sixth Assessment Report (AR6) of IPCC (Lee et al., 2023).

Scope 1 GHG emissions are estimated using fuel consumption volumes, emission data collected at the vents and flare stacks, as well as estimation of fugitive emissions, typically based on equations developed by EPA. Scope 2 emissions are estimated using utility consumption rates and the emission factors for the upstream production of the imported utilities and the delivery of these utilities to the Advancion facilities. The emission factors for Scope 2 GHG emissions were obtained from the Emission and Generation Resource Integrated Database (eGRID) database by the U.S. Environmental Protection Agency (EPA) for facilities in North America and the European Union GHG emission factor hub for facilities in Europe.

Emissions	2022	2021	2020	2019
GHG Scope 1 (mtCO ₂ eq)	134,204	136,358	128,437	106,558
GHG Scope 2, location-based (MTCO ₂ eq)	32,746	30,627	34,605	34,990
GHG Total (MTCO₂eq)	166,950	166,985	163,042	141,548
GHG Intensity (MTCO₂eq/MT production)	1.0658	1.1825	1.2549	1.0520

Other indirect (Scope 3) GHG emissions

In 2022, we worked with a third party to calculate Scope 3 GHG emissions from our global operations, including our corporate headquarters, Sterlington and Ibbenbüren manufacturing facilities, as well as warehouses utilized worldwide. The methodology for the calculation is from the WRI/WBCSD “Corporate Value Chain (Scope 3) Accounting and Reporting Standard,” Supplement to the GHG Protocol Corporate Accounting and Reporting Standard, 2006.

GHG Scope 3 Categories 8 (Upstream Leased Assets), 13 (Downstream Leased Assets), 14 (Franchises) and 15 (Investments) are not applicable to Advancion operations and were therefore excluded per the methodology. Additionally, Advancion did not have data available to calculate categories 10 (Processing of Sold Products), 11 (Use of Sold Products) and 12 (End-of-Life Treatment of Sold Products) in 2021. However, in 2022, we were able to gather additional data to evaluate categories 11 and 12. Our goal is to further expand the calculation to include category 10 in the future. Categories 1 (Purchased Goods & Services) and 2 (Capital Goods) were compiled using spend-based data to obtain metric tons of CO₂e. The remaining categories utilize emission factors from the EF_GREET 2021 (Greenhouse gases, Regulated Emissions and Energy use in Technologies) model to provide the total metric tons of CO₂e from Scope 3 sources.

2021 has been selected as the baseline since this is the first year that the Scope 3 GHG data was compiled. In coming years, as data is compiled to complete additional Scope 3 categories, we will evaluate GHG Scope 3 reduction opportunities in addition to those already identified for Scope 1 and 2.

GHG Scope 3 (MTCO ₂ eq)	2022	2021
C1 Purchased Goods and Services	147,153	164,468
C2 Capital Goods	4,626	8,574
C3 Fuel and Energy Related Activities	27,871	26,612
C4 Upstream Transportation and Distribution	3,627	3,047
C5 Waste Generated in Operations	9,783	18,899
C6 Business Travel	168	38
C7 Employee Commuting	1,379	1,338
C8 Upstream Leased Assets	Not Relevant	Not Relevant
C9 Downstream Transportation and Distribution	4,232	5,729
C10 Processing of Sold Products	Not Evaluated	Not Evaluated
C11 Use of Sold Products	13,868	Not Evaluated
C12 End of Life Treatment of Sold Products	88,670	Not Evaluated
C13 Downstream Leased Assets	Not Relevant	Not Relevant
C14 Franchises	Not Relevant	Not Relevant
C15 Investments	Not Relevant	Not Relevant
<i>GHG Scope 3 Upstream Total</i>	194,607	222,976
<i>GHG Scope 3 Downstream Total</i>	106,770	5,729
GHG Scope 3 Total (MTCO₂eq)	301,377	228,705
GHG Scope 3 Intensity (MTCO₂eq/MT production)	1.9239	1.6196

GHG emissions intensity

We calculate GHG Intensity by combining Scope 1 and 2 metric tons of CO₂e data for the manufacturing facilities and dividing by the metric tons of production for that year. As part of developing our Target 2030 Reduction Goals, we selected 2020 as the baseline year for comparison as it represented annual data typical for our operations.

Our performance in 2022 as compared to 2020 included a 15.1% reduction in metric tons of CO₂e for Scope 1 and 2 GHG emissions, which exceeds the goal of a 10% reduction that was set for 2030. This is likely a combination of our ability to produce products more efficiently at higher production rates as well as our concerted effort to conserve natural gas due to the global supply concerns largely driven by the conflict in Ukraine.

Reduction of GHG emissions

In 2022, we identified several projects with the potential to accelerate the reduction in energy and GHG emissions. This work included the design of a solar panel system in Ibbenbüren and a focus on energy reduction in Sterlington. Consultants completed a steam survey of the Sterlington site with suggested projects to reduce steam usage and thereby energy needs. These projects as well as other opportunities were reviewed with the Advancion Energy Savings Team and there are plans to implement these projects at both manufacturing facilities in future years.



Nitrogen oxides (NOx), sulfur oxides (SOx) and other significant air emissions

Based on our proprietary manufacturing processes utilized at our Sterlington facility, we determined that our operations mainly impact nitrogen oxides (NOx) and VOC emissions. The Ibbsbüren plant also tracks NOx emissions, but not VOCs. As such, data has been reflected in the NOx values, but not the VOC totals. These emissions have been routinely calculated and submitted through the Louisiana Department of Environmental Quality Emissions Inventory (ERIC) using criteria from the Louisiana Environmental Regulatory Code, Title 33:III.919.

NOx and VOC intensity values are calculated utilizing metric tons of emissions divided by metric tons of production. The reductions of VOC emissions in 2022 are related to the installation of internal floating roofs at many of the larger aboveground storage tanks at our Sterlington plant. These internal floating roofs act to prevent and contain VOC emissions from chemical products stored there. Additionally, we have plans to implement selective catalytic reduction (SCR) devices on both of the hazardous waste boilers at our Sterlington facility. The SCR units are designed to significantly reduce the NOx generated.

Process Emissions	2022	2021	2020	2019
Nitrogen Oxides (NOx) (MT)	611.264	539.8	514.1	498.8
Volatile Organic Compounds (VOC) (MT)	224.710	187.0	188.6	195.6
NOx Intensity (MT / MT production)	0.003902	0.003823	0.003957	0.003707
VOC Intensity (MT / MT production)	0.001435	0.001324	0.001451	0.001454

2022 by the numbers

NOx and VOC emissions*

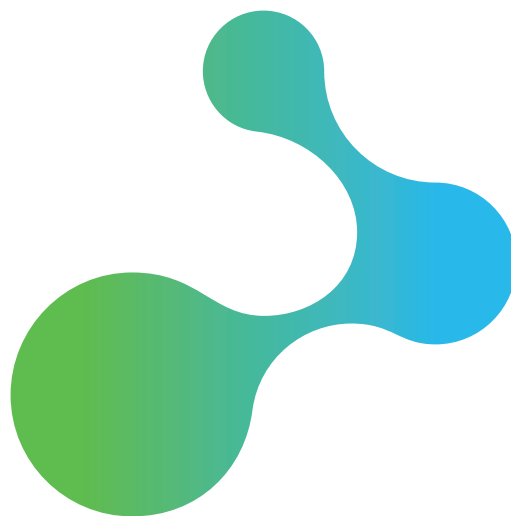
*Versus 2020 baseline

-1.38%

reduction in NOx emissions

-1.16%

reduction in VOC emissions



Waste

We are committed to ensuring the proper management of waste generated at our manufacturing locations. Waste minimization and management measures are accomplished through the global Environmental Health and Safety policy, adherence to the Responsible Care initiative with relevant industry best practices, and in compliance with applicable regulations. Operational compliance to these waste management requirements is verified through periodic internal audits and regulatory inspections.

Waste generation and significant waste-related impacts

We maintain dedicated waste areas at each Advancion facility depending upon the type of waste and its regulatory requirements. Waste is temporarily accumulated on-site in compliance with local regulations until it is processed on-site or hauled for off-site disposal by qualified third-party vendors. We track all off-site waste management through waste profiles and manifests. This paper chain ensures that the waste is managed appropriately in a manner that is protective of the environment.

2022 by the numbers

Waste

-8.45%

reduction in waste intensity

102,547 MT

waste diverted to beneficial reuse and energy recovery

Management of significant waste-related impacts

We have implemented several waste minimization projects at our manufacturing sites, including methanol recovery systems and TRIS AMINO™ mother liquor recovery systems, as well as the ability to rework products that may be off-spec. We have built relationships with various customers that are also able to utilize excess product under a beneficial reuse program. Further recycling opportunities have been instituted for spent nickel catalyst, used oil and universal wastes.

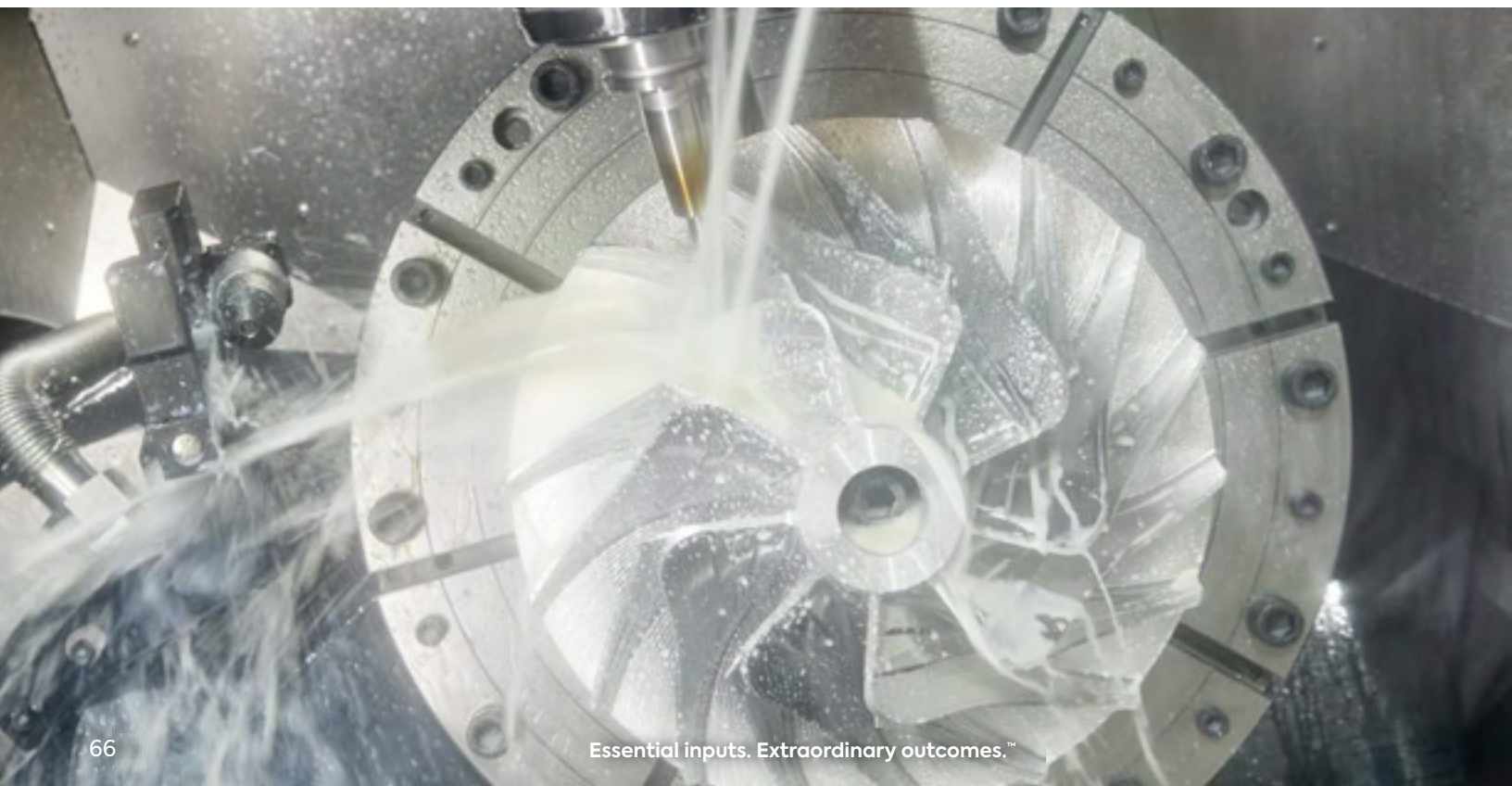
We manage two hazardous waste streams at the Sterlington plant, including a low pH material that is managed in an injection well and a heads stream that is consumed in on-site boilers for steam generation. Both activities have been fully investigated and permitted for compliance with applicable regulations that are protective of human health and the environment. Data on these streams is maintained by the Utilities and EH&S Department as required to ensure compliance.

Waste generated

We generate both non-hazardous and hazardous wastes that are sent off-site for disposal by a third party. Disposal facilities are selected based on a rigorous review of various parameters including compliance history. Advancion is also a member of CHWMEG, an organization that provides in-depth audit reports to aid in selecting appropriate disposal facilities. Wastes sent to these locations are managed through the manifest system that tracks the waste from cradle to grave. Documentation for these manifests is available from our EH&S Department.

Advancion monitors the waste intensity calculated as the total of non-hazardous and hazardous wastes generated, excluding those that are recycled or reused divided by the plant production in metric tons. The reduction in waste intensity in 2022 is likely a result of the beneficial reuse program that allowed for excess product to be utilized by a customer for its intended purpose rather than sent to a disposal facility. Advancion continues to include waste minimization as a portion of every new project. The significant increase in the amount of total waste diverted in 2022 is primarily related to the decommissioning of equipment at our Sterlington plant that was recycled.

Waste Generation (MT)	2022	2021	2020	2019
Non-Hazardous	7,924	5,814	5,629	12,589
Hazardous	21,793	22,014	21,292	24,001
Total Waste Volumes	29,717	27,828	26,921	36,590
Total Waste Diverted	102,547	4,568	3,282	2,362
Waste Intensity (MT/MT of production)	0.18971	0.19706	0.20721	0.27194



Waste diverted from disposal

We include waste minimization efforts as part of normal operations and, as a result, there are several plant processes that divert waste from disposal. However, the data for these processes such as our methanol and TRIS AMINO mother liquor recovery systems have not been tracked as it relates to sustainability. We plan to develop metrics for tracking these items for future reports. Additionally, we previously instituted a practice of returning material that may be out of customer sales specification to our manufacturing sites. Typically, our manufacturing teams can rework the material to bring it into sales specification, thereby preventing the generation of waste. We plan to develop metrics for tracking these items in future reports.

We routinely investigate recycling options for various waste streams and routine recycling includes spent catalyst, used oil, spent parts washer solvent, scrap metal, plastic and universal waste items such as electronics, fluorescent lamps and batteries. These metrics are included in the waste diversion table.

We also have investigated another option for waste diversion in searching for beneficial reuse options for excess products. Typically, excess materials have been disposed of through incineration. However, we have been increasingly successful in locating customers and applications that can utilize the material in their process at a reduced cost. 2022 was the first year that this beneficial reuse program was implemented, and it resulted in the diversion of 1,145 metric tons of basic nitroparaffin products that would have otherwise been disposed. Our teams continue to research and identify beneficial reuse options to expand this program as required in the coming years.

Waste Diverted (MT)	2022	2021	2020	2019
Hazardous Waste Diverted				
Recycled	2,890	4,186	2,967	2,036
Reused	1,145	-	-	-
Total Hazardous Waste Diverted	4,035	4,186	2,967	2,036
Non-Hazardous Waste Diverted				
Recycled	98,511	382	315	326
Total Non-Hazardous Waste Diverted	98,511	382	315	326



Waste directed to disposal

We track disposal of materials from cradle to grave for each waste item generated to ensure that they are managed in a manner that is protective to human health and the environment. The EH&S department maintains a database that separates wastes by type (hazardous, non-hazardous), treatment method and whether disposal occurred on-site or off-site. This data is routinely reviewed and utilized to demonstrate compliance with regulatory requirements.

Waste Disposal by Treatment Method	2022			2021			2020			2019		
	On-Site	Off-Site	2022 Total	On-Site	Off-Site	2021 Total	On-Site	Off-Site	2020 Total	On-Site	Off-Site	2019 Total
Hazardous Waste (MT)												
Incinerated (with energy recovery)	16,952	1,864	18,817	17,138	1,072	18,210	16,000	2,041	18,041	16,080	846	16,926
Incinerated (without energy recovery)	-	0.04	0.04	-	671	671	-	3.70	3.70	-	3,489	3,489
Injection Well	2,976	-	2,976	3,133	-	3,133	3,247	-	3,247	3,586	-	3,586
Total Hazardous Waste Diverted	19,928	1,864	21,793	20,270	1,743	22,014	19,247	2,045	21,292	19,666	4,335	24,001
Non-Hazardous Waste Diverted												
Incinerated (with energy recovery)	-	6.2	6.2	-	6.7	6.7	-	6.2	6.2	-	126.3	126.3
Incinerated (without energy recovery)	-	-	-	-	-	-	-	0.0005	0.0005	-	0.3973	0.3973
Landfill	-	5,038	5,038	-	4,245	4,245	-	5,623	5,623	-	9,334	9,334
Injection Well	-	2,879	2,879	-	1,562	1,562	-	-	-	-	3,128	3,128
Total Non-Hazardous Waste Diverted	-	7,924	7,924	-	5,814	5,814	-	5,629	5,629	-	12,589	12,589





Product stewardship

Product stewardship

We recognize the importance of our responsibility in advancing global sustainability by minimizing the societal impact of our products and our customers' products. Through numerous product stewardship activities and initiatives, we are pushing ourselves beyond the status quo to integrate responsible economic, environmental and social principles into our global product and service strategies.

Assessment of the health and safety impacts of product and service categories

We conduct a product risk characterization on 100% of our portfolio of products every three years using the American Chemistry Council's (ACC) Product Risk Characterization Tool in compliance with the Responsible Care Management System Standards. The risk characterization evaluates products to prioritize for which health and safety impacts require special product stewardship programs to mitigate adverse impacts to human health and/or the environment and target product improvement. Additionally, health and safety impacts of products are assessed whenever there is a change in normal use patterns, applications or markets through periodic internal audits and regulatory inspections.

In 2021, Advancion began participating in the ACC Voluntary Sustainability Metrics Reporting which annually tracks six sustainability metrics that include:

- Community engagement
- Greenhouse gas impact
- Air quality
- Energy efficiency and energy diversity
- Diversity and inclusion
- Responsible management of hazardous waste

In 2022, we assessed 100% of our portfolio of products to evaluate the revenue derived from sustainable products that promote health, reduce waste or have a positive environmental impact. It was estimated that approximately 53% of Advancion's revenues comes from sustainable products as defined above. To further enhance our sustainability efforts, we developed a sustainable innovation roadmap that focuses on sustainable product development and operational process optimization.

Modernizing product safety assessments

We take advantage of new 21st century tools such as in silico and in vitro screening methods to build robust programs around chemical safety at early stages in new product development and throughout the product development process. Under this new paradigm, we can implement strategies to strengthen our ability to assess gaps in safety information and target next steps to improve the ability to develop, manufacture and launch more sustainable products. In 2022, 100% of our new chemistries under development were screened using this approach.

Requirements for product and service information and labeling

We foster dialogue with customers, who are supported in the application and use of Advancion products by our global network of Research, Development and Applications (RD&A) teams specializing in specific end-market applications. Our RD&A employees are strategically located in our six regional Customer Application Centers (CACs) with access to state-of-the-art laboratory and research facilities that leverage our deep and broad applications expertise to solve specific formulation and application challenges for customers. This service offering also features comprehensive product information, particularly with respect to optimum and safe application, health risks, waste disposal and handling of packaging.

Safety data sheets (SDS) containing the relevant substance data, information on safe handling and storage of products, and measures in the event of incidents such as product spillages/release and fire are provided by Advancion to all parties involved in the handling of the substances. We maintain a close relationship with our customers and provide Regulatory Data Sheets (RDS) for key products that serve as a one-stop-reference for the global regulatory status and key product stewardship information.

Additionally, Advancion undergoes an annual third party ESG performance assessment to review the impacts of our products, operations, and supply chain. We use recommendations from the annual ESG assessment to strengthen our chemical management programs and improve the sustainability profiles of our products.

All Advancion products are covered by and assessed for compliance with the procedures above.



GRI content index

Statement of Use	Advancion Corporation has reported in accordance with the GRI Standards for the calendar and fiscal period starting January 1, 2022 and ending December 31, 2022
GRI 1 Used	GRI 1: Foundation 2021

GRI Standard/ Other Source	Disclosure	Page(s) in this report	Omissions	
			Reason	Explanation
General Disclosures				
GRI 2: General Disclosures 2021	2-1 Organizational details	4, 8		
	2-2 Entities included in the organization's sustainability reporting	4		
	2-3 Reporting period, frequency and contact point	4		
	2-4 Restatements of information	4		
	2-5 External assurance	4		
	2-6 Activities, value chain and other business relationships	7, 12, 13, 14, 16, 18		
	2-7 Employees	34, 35		
	2-8 Workers who are not employees	34, 35		
	2-9 Governance structure and composition	23		
	2-10 Nomination and selection of the highest governance body		Confidentiality constraints	Advancion is a privately held company. This information is considered proprietary and is not disclosed by Advancion to third parties.
	2-11 Chair of the highest governance body		Confidentiality constraints	
	2-12 Role of the highest governance body in overseeing the management of impacts	20, 21, 22, 23		
	2-13 Delegation of responsibility for managing impacts	23		
	2-14 Role of the highest governance body in sustainability reporting	23		
	2-15 Conflicts of interest		Confidentiality constraints	Advancion is a privately held company.
	2-16 Communication of critical concerns	23, 42		

GRI Standard/ Other Source	Disclosure	Page(s) in this report	Omissions	
			Reason	Explanation
General Disclosures				
GRI 2: General Disclosures 2021	2-17 Collective knowledge of the highest governance body		Confidentiality constraints	Advancion is a privately held company. This information is considered proprietary and is not disclosed by Advancion to third parties.
	2-18 Evaluation of the performance of the highest governance body		Confidentiality constraints	
	2-19 Remuneration policies		Confidentiality constraints	
	2-20 Process to determine remuneration		Confidentiality constraints	
	2-21 Annual total compensation ratio		Confidentiality constraints	
	2-22 Statement on sustainable development strategy	6		
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	2-26 Mechanisms for seeking advice and raising concerns	42		
	2-27 Compliance with laws and regulations	42		
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GRI 3: Material Topics 2021	3-1 Process to determine material topics	28, 29		
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GRI 3: Material Topics 2021	3-3 Management of material topics	42		
	205-2 Communication and training about anti-corruption policies and procedures	42		
	205-3 Confirmed incidents of corruption and actions taken	42		

GRI Standard/ Other Source	Disclosure	Page(s) in this report	Omissions	
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GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	42		
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GRI 302: Energy 2016	302-1 Energy consumption within the organization	53, 54, 55		
	302-3 Energy intensity	53, 54, 55		
	302-4 Reduction of energy consumption	53, 54, 55		
	302-5 Reductions in energy requirements of products and services	53, 54, 55		
Water and Effluents				
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GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	56, 57, 58, 59		
	303-2 Management of water discharge-related impacts	56		
	303-3 Water withdrawal	58		
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	303-5 Water consumption	59		
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GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	53, 60, 61, 63		
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	305-3 Other indirect (Scope 3) GHG emissions	60, 62		
	305-4 GHG emissions intensity	22, 53, 63, 64		
	305-5 Reduction of GHG emissions	22, 52, 53, 60, 61, 62, 63, 64		
	305-7 Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	64		

GRI Standard/ Other Source	Disclosure	Page(s) in this report	Omissions	
			Reason	Explanation
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GRI 3: Material Topics 2021	3-3 Management of material topics	22, 52, 65		
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	53, 65		
	306-2 Management of significant waste-related impacts	53, 65, 66		
	306-3 Waste generated	53, 66		
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