

Genomics for Good

Illumina Corporate Social
Responsibility Report 2023



illumina®



At Illumina, we are driven by the power of **genomics** to positively impact the world and shape a more sustainable and equitable future **for all**.

Our fifth annual report documents the evolution and performance of our Corporate Social Responsibility (CSR) program from January 1 through December 31, 2023.

This document reflects the progress we have made and looks to the future with our continued commitment to deepen our impact on human health by serving as a champion for patients, our communities, our people, and our planet.

[Learn more about this report](#)

TABLE OF CONTENTS

[A message from our CEO](#)

[Introduction](#)

- [5](#) 2023 CSR highlights
- [6](#) Celebrating 25 years of Illumina
- [7](#) Recognition
- [8](#) About Illumina
- [9](#) Business overview

[CSR at Illumina](#)

- [11](#) CSR governance
- [12](#) CSR strategy
- [14](#) Materiality
- [15](#) Engaging our stakeholders
- [16](#) Progress on our 2030 targets

[Accelerate access to genomics](#)

- [18](#) Strategic approach and impact
- [19](#) Innovation
- [21](#) Affordability
- [22](#) Reach
- [27](#) Impact in action

[Nurture our people and communities](#)

- [29](#) Strategic approach and impact
- [30](#) Our people
- [31](#) Practice diversity, equity, and inclusion
- [33](#) Attract extraordinary talent
- [34](#) Invest in our people
- [36](#) Employee health, safety, and well-being
- [38](#) Employee engagement and community impact
- [39](#) Impact in action

[Integrate sustainability](#)

- [41](#) Strategic approach and impact
- [42](#) Driving climate action across our value chain
- [44](#) Operate sustainable facilities
- [46](#) Develop sustainable products
- [47](#) Leveraging genomics for sustainability applications
- [49](#) Impact in action

[Operate responsibly](#)

- [51](#) Strategic approach and impact
- [52](#) Practice strong corporate governance
- [55](#) Business ethics and integrity
- [58](#) Data privacy and cybersecurity
- [60](#) Responsible supply chain
- [63](#) Product quality and safety

[Appendix](#)

- [65](#) About this report
- [66](#) Progress on our 2030 targets
- [67](#) Key performance indicators
- [81](#) Indices (GRI, SASB, TCFD, UNGC)
- [89](#) Assurance statements
- [90](#) Disclosures

Message from our CEO

Since joining Illumina, I've witnessed the passion our customers, employees, and partners share around improving human health by unlocking the power of the genome. As an industry leader, Illumina is uniquely positioned to advance the adoption of genomics across the life sciences ecosystem with our innovative products, services, and solutions.

Despite challenging market conditions, we've maintained our steadfast commitment to serving customers and supporting our environmental, social, and governance priorities. Aligned with our business strategy and core Illumina values, we continue taking bold, meaningful steps to accelerate access to genomics, empower our communities, integrate environmental sustainability, nurture our people, and operate responsibly.

Make our customers the heroes in their labs

Our customers' ambition to solve humanity's biggest challenges inspires us to push the boundaries of what is possible and create the genomics tools that can turn big ideas into life-changing discoveries. Our goal is to make them the heroes in their labs, armed with a comprehensive portfolio of core sequencing innovation, sample-to-answer solutions, and lab services.

Accelerate access to genomics

Bringing the benefits of genomics to more people requires driving down the cost of sequencing, expanding into new markets, and increasing the diversity of genomic data. In 2023, we trained more than 27,000 health care professionals and increased the number of patients covered for genomic testing from 1.2 billion to 1.3 billion. In Canada, we helped fund a new project aimed at bridging the diagnosis gap for the region's Indigenous children, just one of many initiatives we support to increase diversity in human genetics.

We also launched several new products, including the NovaSeq™ X Systems, powered by XLEAP-SBS™ chemistry; our TruSight™ Oncology 500 ctDNA v2 research assay, enabling comprehensive genomic profiling from liquid biopsy samples; and the 25B flow cell, which can generate tens of thousands of whole genomes per year at the lowest cost per sample of any Illumina platform.

“Our customers' ambition to solve humanity's biggest challenges inspires us to push the boundaries of what is possible and create the genomics tools that can turn big ideas into life-changing discoveries.”

Jacob Thaysen
Chief Executive Officer

Nurture our people and help them thrive

I'm incredibly proud of our global team. We share a passion for improving the world around us through genomics, and believe in the power of an inclusive, collaborative, and caring workplace. In 2023, we maintained a zero net pay gap for the fifth consecutive year; and reached 45% female workforce representation, with a 5% increase in female leadership roles over the last three years. Nearly 60% of our global employees participated in charitable giving and volunteering during the year.

Integrate environmental stewardship into our business and innovations

We know improving human health is tied to creating a healthier planet. Making bold environmental commitments, and helping customers achieve their



Jacob Thaysen
Chief Executive Officer

sustainability goals, is part of our role as an industry leader. Launched in 2023, our NovaSeq X instruments improve the sustainability of reagents with 90% less packaging, 50% less plastic, and a 61% reduction in climate change impact. Additionally, in 2023 we achieved 100% renewable electricity* for a second consecutive year.

Operate responsibly in all that we do

Every minute, approximately 7.5 human genomes are sequenced on an Illumina platform. That impact comes with great responsibility. We're committed to operating with integrity and adhering to high ethics, privacy, and security standards. In 2023, 100% of Illumina core facilities participated in third-party audit programs. In addition, we expanded our ISO data privacy certification to include additional products and completed the

EU-US and Swiss-US Data Privacy Framework self-certification and ISO 27701 certification.

Our next 25 years of innovation

Founded in 1998, Illumina has proven time and time again how unlocking the power of the genome can exponentially improve the human condition. The future is bright for Illumina and our industry, as we consider the role genomics can play in improving the health of the planet and its people. Thank you to our customers, partners, and employees around the world for helping bring our mission to life. I look forward to continuing our journey as we build a stronger, healthier world together.


Jacob Thaysen

Chief Executive Officer

*Using onsite solar, purchased renewable energy, and renewable energy credits.



Introduction

2023 CSR highlights

ACCELERATE ACCESS TO GENOMICS	NURTURE OUR PEOPLE AND COMMUNITIES	INTEGRATE SUSTAINABILITY	OPERATE RESPONSIBLY
1.3 billion lives covered	Zero net pay gap maintained for fifth consecutive year	100% of global electricity consumption came from renewable sources	100% of Illumina core facilities participated in third-party audit programs
Comprehensive genomic profiling enabled for liquid biopsy samples [‡] launched	52% minority representation in the US workforce	90% less packaging weight and waste in NovaSeq™ X Series reagents	11% diverse supplier spend
352 NovaSeq™ X Series instruments enabling whole-genome sequencing (WGS) at \$200 USD genome* shipped	5% increase in female executive leadership representation in the last three years	100% of our strategic suppliers committed to minimize their environmental footprint	Completed The EU-US and Swiss-US Data Privacy Framework (DPF) Self-Certification and ISO 27701 Certification
> 27,000 health care professional learners reached	58% employee participation in giving and volunteer programs	8% decrease in water consumption (YoY) at core sites [†]	91% independent Board of Directors (all independent with exception of CEO)

*\$200 USD genome on NovaSeq X Series is delivered at list price on 25B flow cell. Data on file.

[†]Core sites: San Diego (i3, HQ, Distribution Center), Foster City, Hayward, Madison, UK Illumina Centre, the Netherlands, and Singapore Woodlands.

[‡]With our new [TruSight™ Oncology 500 ctDNA v2 research assay](#).



Celebrating 25 years of Illumina

1998

Illumina was founded.

2001

We launched our first product.



2007

We launched the Genome Analyzer™, introducing the world to Illumina sequencing by synthesis (SBS) chemistry, advancing sequencing chemistry to be faster, more accurate, and more stable.



2008

Illumina completed the first-ever sequencing of an African human genome. From the very beginning, we have prioritized increasing genomic data diversity.

2017

Since its inception in 2017, our market access team has been working with consortia, governments, payers, and others to increase insurance coverage for genetic testing. **1.3 billion** lives are now covered. [Learn more](#)



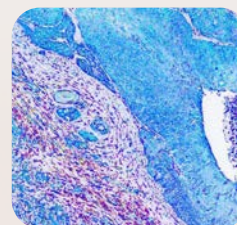
2010

We brought the cost of sequencing a human genome from \$150,000 to **\$10,000** with the Illumina HiSeq™ 2000. [Learn more about how we're making genomics more affordable.](#)



2018

We introduced a pan-cancer assay designed to identify known and emerging tumor biomarkers, helping to accelerate the field of precision oncology with [comprehensive genomic profiling](#).



2019

[Researchers used the MiniSeq™ System](#) to sequence a sample of COVID-19 in Wuhan and enabled partners to develop the vaccines without a live virus.



2020

On June 9, we received the [first FDA Emergency Use Authorization](#) for a sequencing-based COVID-19 diagnostic test.



2023

We began shipping the [NovaSeq X Series](#), our most powerful and sustainable high-throughput NGS systems, resulting in the **~\$200** genome* and a **61%** reduction in climate change impact†



*\$200 USD genome on NovaSeq X Series is delivered at list price on 25B flow cell. Data on file.

†Compared with NovaSeq 6000 reagents.

Recognition 2023

- 3BL 100 Best Corporate Citizens
- AmCham Corporate and Societal Action: Recognition for Excellence in Singapore (CARES)
- CDP Supporter
- Community Chest Singapore Charity Silver
- Disability Equality Index, Best Places to Work for Disability Inclusion
- Dow Jones Sustainability Indices
- EcoVadis Silver Sustainability Rating
- Fast Company's Innovation by Design Awards for the NovaSeq X Series (Honoree)
- Fast Company's World Changing Ideas Awards for the NovaSeq X Series (Honoree)
- Forbes America's Best-In-State Employers
- Forbes World's Best Employers
- Forbes World's Top Companies for Women
- FTSE4Good Index
- IBO Gold Award for Design for the NovaSeq X Series
- ISS CSR 1 | 1 | 10
- JLens CSR Awards
- Just Capital and CNBC America's Most Just Companies
- Military Times Best for Vets
- MSCI CSR (AA)
- Newsweek America's Greatest Workplaces for Diversity
- Newsweek America's Greenest Companies
- Newsweek America's Most Responsible Companies
- Newsweek Excellence Index
- Refinitiv Top 100 Global Diversity and Inclusion Index
- S&P Global's Sustainability Yearbook Member
- SANDAG iCommute Diamond Awards
- Sustainalytics Morning Star | Industry Top Rated CSR
- The Straits Times Singapore's Best Employers
- TIME World's Best Companies
- U.S. News & World Report Best Companies To Work For
- Workplace Safety and Health Council Silver Award (Singapore)



About Illumina

We are a global genomics and human health leader innovating the future of precision health. Unlocking the power of genomics is exponentially improving the human condition. This is why we are committed to driving continuous innovation and deep collaboration that will enable positive and impactful people- and planet-healing solutions.

OUR MISSION

To improve human health by unlocking the power of the genome.

OUR PURPOSE

Drive the positive progress of genomics to make it useful for all.

OUR PROMISE

We deliver breakthroughs that redefine what’s possible in genomics and accelerate impactful health advances globally.

OUR PRINCIPLES

Accelerating access

Making genomics accessible is critical in realizing its potential to save and improve lives. That’s why we are committed to driving down the cost of sequencing, expanding access to advanced technology, and increasing the diversity of genomic data.

Redefining possible

The genome has the potential to solve humanity's biggest challenges. Our industry-leading technology enables researchers and clinicians to turn big dreams into impactful genomic discoveries that improve lives and change the course of diseases globally.

Leading purposeful advances

Our passion for supporting customers and helping them achieve their goals guides what we do. Inspired by deep customer insights, we lead the way in delivering purposeful advances that address critical needs and support researchers and clinicians as they make life-changing breakthroughs and decisions.

Broadening impact with collaborations

Improving health at scale requires vision and collaboration with changemakers across the ecosystem. Together, we’re finding answers to life’s biggest questions and broadening the positive impact of genomics around the world.

Acting with integrity to benefit humanity

Doing the right thing is core to who we are and what we do. We have an unrelenting dedication to genomics for good, and hold ourselves to the highest standards in ethics, privacy, and security.

OUR VALUES



Innovation is in our DNA



We are relentless in the creation of great products



We collaborate deeply



We move fast and embrace change



We are open



The power of genomics

What causes a cancer cell to mutate? How do we identify a novel virus and create a vaccine? How do we diagnose a rare genetic disease? How do we safeguard the world’s food supply? What effect does climate change have on biodiversity? The answer to these and thousands more of life’s most pressing questions can be found in the world of genomics.

Business overview

CORE ILLUMINA AT A GLANCE

1998

founding year

\$1 billion+

in R&D (GAAP)

450,000+

sequencing publications

~9300

employees

~9500

customers

9893

patents worldwide

\$4.44 billion

Core Illumina 2023 revenue

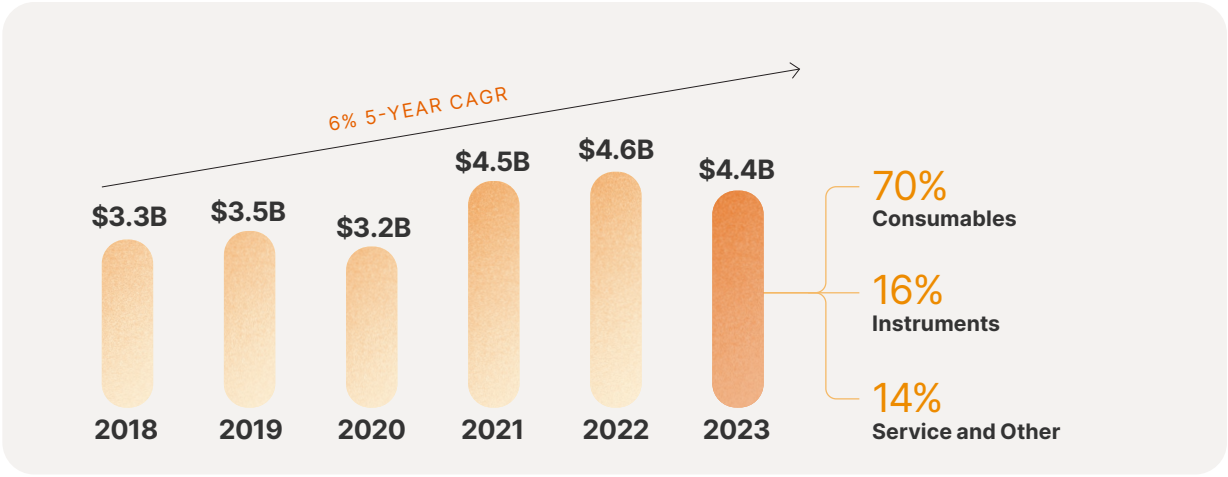
25,000+

instruments installed

160+

countries receive our products

CORE ILLUMINA REVENUE



MARKET SEGMENTS

Oncology

Reproductive Health

Genetic Disease

Research/Applied Genomics

Infectious Disease

Drug Discovery

Multi-Omics

SEQUENCING SYSTEMS

LOW-THROUGHPUT

MiSeq™

MiniSeq™

iSeq™ 100

MID-THROUGHPUT

NextSeq™ 500

NextSeq™ 550

NextSeq™ 1000/2000

HIGH-THROUGHPUT

NovaSeq™ 6000

NovaSeq™ X Series

DIAGNOSTIC

MiSeq™ Dx

NextSeq™ 550 Dx

NovaSeq™ 6000 Dx



CSR at Illumina

CSR governance

CSR is integral to how we do business. Our governance structure facilitates accountability, transparency, and continuous improvement.



1 The Board of Directors governs the management of our material CSR issues and receives updates on current performance and future strategic plans at least annually or more frequently if material changes occur.

2 The [Nominating/Corporate Governance Committee](#) assists the Board in overseeing the company's material CSR issues, except as specifically delegated to another Board committee (the Compensation Committee oversees DEI and the Audit Committee oversees cybersecurity).

3 The CSR Executive Steering Committee provides guidance on CSR strategic plans and practices, approves major programs, and monitors progress toward targets. It comprises senior leaders, including the general counsel, chief of global operations, chief people officer, chief technology officer, chief marketing officer, vice president of investor relations, and global head of CSR.

4 Philanthropy Governing Board
The Illumina Corporate Citizenship Steering Committee has oversight on philanthropic contributions from Illumina. The Illumina Corporate Foundation Board governs the philanthropy associated with the Illumina Corporate Foundation, a separate entity and private foundation.

5 The [External Ethics Advisory Board](#) provides guidance on a range of strategic issues, including recommendations on emerging ethics matters, policies, and regulations that are relevant to the genomics industry.

6 The CSR Functional Group is responsible for strategy development, program implementation, and CSR reporting.

7 Supporting CSR Working Groups:

- Executive Diversity Council
- EHS Steering Committee
- Quality Council
- Sustainable Product Core Team
- Supplier Diversity Committee
- Privacy Steering Committee

8 Employee Engagement Groups:

- Sustainability Green Teams
- Illumina Cares Volunteer Ambassadors
- Employee Resource Groups (ERGs)

Select CSR targets are included in annual corporate goals and influence executive compensation through the management performance scorecard.

[Learn more about our Board governance, member tenure, independence, and diversity.](#)

CSR integration into our business

Our CSR strategy is guided by our business strategy and the voice of our stakeholders. It provides a lens to evaluate risks and opportunities to foster and promote long-term shared value.

Governed by our Board of Directors, our CSR strategy promotes the sustainable stewardship of our business by focusing on accelerating access to genomics, nurturing our people and communities, integrating sustainability into our products and operations, and operating responsibly.

Access

With our mission to improve human health by unlocking the power of the genome, we are committed to making our products more affordable, accessible, and sustainable.

People

The success of our mission relies on engaging extraordinary talent and helping them thrive. Putting people first and doing the right thing is core to who we are and what we do.

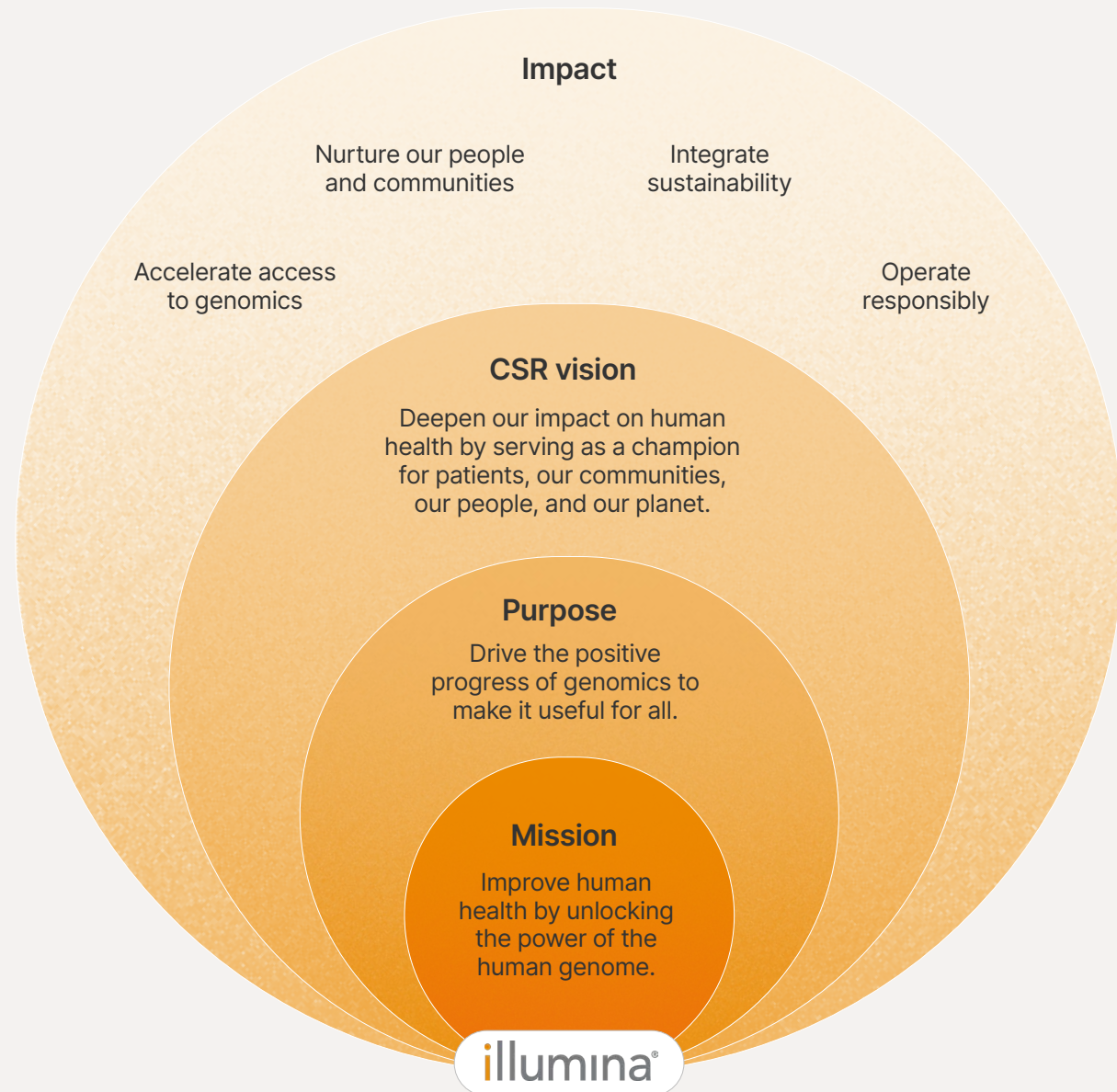
Sustainability

Genomics has the potential to solve humanity's biggest challenges and the planet's most pressing issues. We integrate sustainability in our operations, products, and value chain with recognition that human health and the health of our environment are intertwined.

Responsibility

As genomic pioneers, we hold ourselves to the highest standards in our actions, ensuring that the technology we create and the data we collect are used safely, ethically, and responsibly. We are committed to transparency and connected by a dedication to genomics for good.

By embedding our CSR strategy into our business, we are driving positive stakeholder **impact** and long-term shareholder **value**.



CSR strategy

We are deepening our impact on human health by serving as a champion for patients, our communities, our people, and our planet.



Accelerate access to genomics

- Be the engine of genomic innovation
- Drive down the cost of sequencing
- Expand the reach of genomics



Nurture our people and communities

- Practice diversity, equity, and inclusion
- Attract extraordinary talent
- Invest in our people
- Support employee health, well-being, and safety
- Engage our employees and communities



Integrate sustainability

- Drive climate action
- Operate sustainable facilities
- Develop sustainable products
- Leverage genomics for sustainability applications



Operate responsibly

- Practice strong corporate governance and compliance
- Act ethically and with integrity
- Uphold high standards for data security and privacy
- Foster a responsible supply chain
- Advance product quality and safety



Materiality

We prioritize action on our most material* environmental, social, and governance (ESG) issues, supported by robust governance, transparency, and accountability. Through managing the risks and opportunities related to each material ESG issue, we execute on our purpose and deliver the greatest positive impact to our business, our stakeholders, and the planet.

Our materiality assessments guide our CSR strategy by understanding which material issues matter most to our business, our stakeholders, and society. In 2021, we refreshed our 2018 baseline materiality assessment, which further refined and validated our priorities and focus areas. The updated materiality assessment incorporated principles of a double materiality approach by understanding which topics could have a potential impact on our business and which topics have a potential impact on external stakeholders, society, and the environment.

In this report, we outline our management approach, targets, connection to the United Nations Sustainable Development Goals (UN SDG), and performance for each of our material CSR topics. Our reporting efforts align with the leading frameworks and external benchmarking tools.



Reporting frameworks and external benchmarking



Material CSR topics

ENVIRONMENT

- [Climate action](#)
- [Sustainable facilities](#)
- [Sustainable products](#)

SOCIAL

- [Access, innovation, and affordability](#)
- [Human capital management[†]](#)

GOVERNANCE

- [Supply chain management](#)
- [Data privacy and cybersecurity](#)
- [Corporate governance](#)
- [Business ethics](#)
- [Product quality and safety](#)

*In this report, we use the terms “material” and “materiality” to refer to topics that reflect the meaningful environmental, social, and governance impact of Illumina. The use of such terms shall not be deemed to constitute an admission as to the materiality of any information in this report for purposes of applicable securities laws or any other laws of the United States, nor are we using them as they are used in the context of financial statements and financial reporting.

[†]The human capital management topic includes the following themes: DEI, recruitment, development, engagement, safety, and wellness.



Engaging our stakeholders

Stakeholder groups	How we engage	How we respond
Investors	Investor Day , CSR Virtual Investor Event , quarterly and annual reports, regular meetings, and communication via phone, email, and website.	Based on feedback for increased accessibility of data, we created an CSR data hub on our website that promotes quick access to our CSR targets, policies, and performance.
Customers	Our Customer Experience team regularly surveys customers to understand how we can improve. We conduct quarterly relationship surveys, leverage machine-learning tools, and provide an open channel for customer feedback from our field employees. In 2023, we achieved a Customer Net Promoter Score of 54, and 9 out of 10 customers find it easy to do business with our team.	We received feedback from customers on the sustainability of our products and on decreasing the amount of packaging we use. With the launch of the NovaSeq X Series, we were able to reduce packaging by 90% and achieve a 61% reduction in climate impact.* Learn more
Patients	We partner with patients, families, and organizations that represent communities to help raise awareness, build hope, and create change. Through evidence generation, education, and community outreach, Illumina is committed to advocating for health care coverage and accelerating the adoption of genomics as a diagnostic tool.	Work from scientists at Illumina and our collaborators has shown that patients who get access to whole-genome sequencing (WGS) are twice as likely to have a change in management and are more likely to get the precision care they need. As of 2023, over 1.3 billion lives are covered for genomic testing. Learn more
Employees	We engage and communicate with our employees via regular pulse surveys, virtual and in-person company meetings, email, internal events, performance reviews, training, ERGs, recognition, and other internal platforms.	We received feedback that leaders wanted development opportunities, which resulted in delivering global leadership programs targeted to every leadership level in 2023. Learn more
Suppliers	Our procurement and supply chain management team engages suppliers through tenders, training, surveys, meetings, and questionnaires.	In 2023, we expanded our current practices to protect and promote the right to freedom from forced labor and modern slavery by engaging with a third party to help us initiate human rights due diligence of our supply chain. Learn more
Health care providers	We aim to increase genomic literacy by engaging health care professionals through podcasts, online education, roundtables, conferences, and meetings.	In 2023, through independent medical education partnerships with professional societies and the medical community, we provided education across all clinical segments, reaching 27,000 learners and measuring a 99% increase in participant knowledge and a 98% increase in competence reported. Learn more
Community partners	Community investment grant recipients complete both a mid-grant and final impact survey following completion of their projects to help guide future opportunities and provide feedback.	In 2023, a STEM nonprofit grantee working to create a mobile lab experience communicated delays in construction when they filed their mid-year grant surveys. This feedback enabled us to adjust the launch activation of their exhibit and find alternative volunteer options onsite for our employees while the mobile lab was being completed. Learn more
Government and regulators	Illumina connects with governments and organizations around the world to engage and educate policymakers and key stakeholders on issues that impact our mission and business.	In 2023, we focused engagement with public-policy stakeholders around advancement of precision medicine; adoption and reimbursement for genetic testing; adoption and reimbursement for noninvasive prenatal testing; adoption and funding for genomic infectious disease surveillance; and promotion of STEM opportunities.
Ethics Advisory Board	We seek guidance from our Ethics Advisory Board quarterly on a range of strategic issues.	The Ethics Advisory Board’s work includes providing strategic advice to Illumina about emerging policies and regulations relevant to the genomic industry and the company’s interests, and ethical issues arising from specific technology or products.

*Based on end market assessment NY, US.

Progress on our 2030 targets

Our focus areas	Objectives	2030 Targets	✓ Achieved	🔄 In Progress	2023 Progress
Accelerate access to genomics	1 Be the engine of genomic innovation 2 Drive down the cost of sequencing 3 Expand the reach of genomics	🔄 Achieve 2 billion covered lives by 2026 ✓ Reach at least 25,000 medical education learners annually 🔄 Reach 5 million STEM learners			1.3 billion lives covered >27,000 medical education learners reached 1.6 million STEM learners reached from 2019 baseline
	SDG Alignment Targets: 3.d, 17.6, 17.7, 17.16 3 Good health 4 Quality education 10 Reduced inequalities 17 Partnerships for the goals				
Nurture our people and communities	1 Practice diversity, equity, and inclusion 2 Attract extraordinary talent 3 Invest in our people 4 Support employee health, safety, and well-being 5 Engage our employees and communities	✓ Increase gender representation in global leadership* ✓ Maintain zero net pay gap ✓ Increase minorities** in executive leadership+ (US) ✓ Increase underrepresented minorities[§] in US workforce and leadership* 🔄 Reduce recordable injury and illness rate 🔄 Donate 100,000+ volunteer hours ✓ Achieve 50% employee participation in giving and volunteering			4% increase from 2019 baseline Maintained for 5th consecutive year 8% increase from 2019 baseline 2% increase in leadership; 1% increase in workforce from 2019 baseline 48% decrease from 2019 baseline 47,130 volunteer hours donated from 2019 baseline 58% employee participation
	SDG Alignment Targets: 10.3, 5.b 4 Quality education 5 Gender equality 10 Reduced inequalities				
Integrate sustainability	1 Drive climate action 2 Operate sustainable facilities 3 Develop sustainable products 4 Leverage genomics for sustainability applications	🔄 Deliver net zero emissions (Scope 1,2,3) by 2050 🔄 Reduce emissions by 46% (Scope 1,2) 🔄 Reduce emissions by 46% (Scope 3) ✓ Achieve 100% renewable electricity 🔄 Reach 90% landfill diversion at core sites 🔄 Reach 10% reduction in water intensity at core sites 🔄 Reduce packaging by 75%			In progress 48% decrease from 2019 baseline[†] 16% increase from 2019 baseline; 24% decrease YoY 100% renewable electricity[†] 56% landfill diversion at core sites 2.6% increase in water intensity at core sites; 8.3% decrease YoY in total water consumption 53% reduction from 2019 baseline
	SDG Alignment Targets: 12.2, 12.5, 13.2 9 Industry innovation and competitiveness 12 Responsible consumption and production 13 Climate action				
Operate responsibly	1 Practice strong corporate governance and compliance 2 Act ethically and with integrity 3 Uphold high standards for data security and privacy 4 Foster a responsible supply chain 5 Advance product quality and safety	✓ Ensure 100% strategic suppliers committed to reducing their environmental footprint 🔄 Achieve 20% spend with diverse suppliers (US) ✓ Achieve top industry CSR ratings			100% strategic suppliers committed to reducing their environmental footprint 11% spend with diverse suppliers (US) Top industry rating for DJSI, Sustainalytics, Just Capital, and others
	SDG Alignment Targets: 9.2, 10.3, 17.16 10 Reduced inequalities 17 Partnerships for the goals				

Core sites: San Diego (i3, HQ, Distribution Center), Foster City, Hayward, Madison, UK Illumina Centre, the Netherlands, and Singapore Woodlands.

*Through onsite generation, purchased renewable electricity, renewable energy credits, and Green-e certified nature-based carbon credits.

*Leadership: manager, equivalent, and above.

†Executive leadership: director, equivalent, and above.

§Underrepresented minorities (US): Black, Native, Pacific Islander, Hispanic or Latino, two or more.

**Minorities (US): Asian, Black, Native, Pacific Islander, Hispanic or Latino, 2 or more.

As our business evolves and matures, we consistently evaluate our CSR strategy, targets and the connection to our business priorities. Changes in leadership and macroeconomic trends have led to prioritization of our 2023 targets listed here. A deeper review with a double materiality lens is planned for future inclusion and evaluation.



Accelerate access to genomics

Strategic approach and impact

We are committed to accelerating access to genomics to realize health equity for billions of people around the world. Making genomics available to all is critical in realizing its potential to save and improve lives. That's why we are driving down the cost of sequencing, expanding access to advanced technology, and increasing the diversity of genomics data.

KEY OBJECTIVES

- 1 Be the engine of genomic innovation
- 2 Drive down the cost of sequencing
- 3 Expand the reach of genomics

2023 HIGHLIGHTS

211

new patent applications in 2023, totaling **9893** patents issued worldwide by end of 2023

335

patients supported through philanthropic iHope programming

> **27,000** health care professional learners reached

352

units of new breakthrough NovaSeq X series shipped

1.3 billion

lives covered

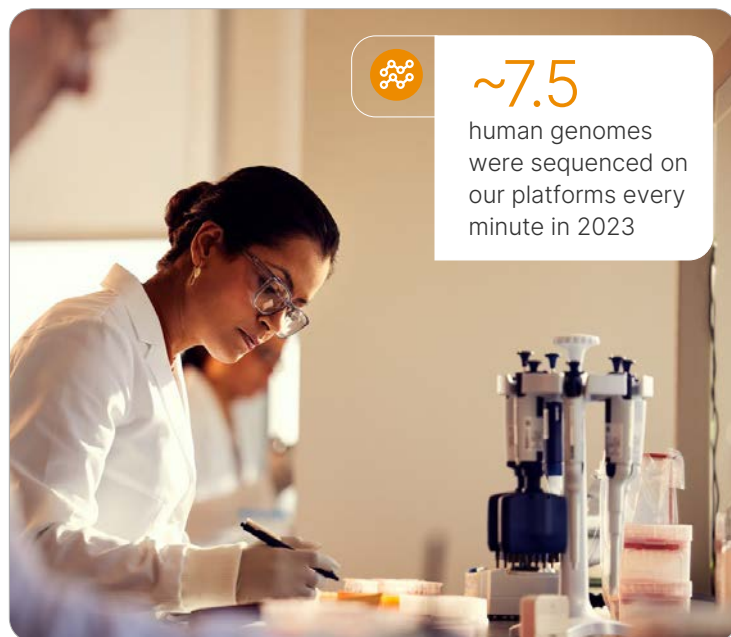
UN SDGS



Innovation

Our mission is urgent because we understand that today's discoveries have the potential to help tomorrow's patients and address some of the world's most pressing challenges.

Every technological breakthrough that reduces cost, improves throughput, decreases turnaround time, or improves ease of use helps us realize our potential, improving more lives and protecting our planet.



Innovation is key to our continued growth as a company and the scale of impact created by our products and services. Inspired by deep customer insights, we lead the way in delivering purposeful advances that address critical needs and support researchers and clinicians as they make life-changing breakthroughs and decisions.

Product innovation highlights



Change the world with the NovaSeq X Series

The first [NovaSeq X and NovaSeq X Plus](#) shipments were delivered in early 2023. Powered by XLEAP-SBS chemistry—an even faster, higher quality, and more robust version of our proven SBS chemistry—they deliver extraordinary throughput and accuracy to perform data-intensive applications at production scale.

[DRAGEN™](#) technology, available onboard or in the cloud, provides award-winning accuracy for rapid, easy-to-use, and efficient genomic data analysis.

The NovaSeq X and NovaSeq X Plus Systems were purpose-designed to be our most sustainable sequencing systems yet. [Learn more](#)

AWARDS RECEIVED:

- 2023 IBO Gold Award for Design
- Fast Company's 2023 World Changing Ideas Awards (Honoree)
- Fast Company's 2023 Innovation by Design Awards (Honoree)



Enabling comprehensive genomic profiling of solid tumors



Announced in 2023, the new [TruSight Oncology 500 ctDNA v2](#) is a research assay that enables noninvasive comprehensive genomic profiling (CGP) of circulating tumor DNA (ctDNA) from blood.

Greater throughput at our lowest cost per gigabase



In 2023, Illumina launched the 25B flow cell (300-cycle kit) and software update v1.2 for the NovaSeq X Series, enabling the \$200 genome and continuing our journey of making genome sequencing more accessible and powering more expansive sequencing projects. Customers can now sequence 2.5× more cells in half the time* with the 25B flow cell on NovaSeq X Plus. [Learn more](#)

The most trusted benchtop sequencing systems



The [NextSeq 1000 and NextSeq 2000](#) Sequencing Systems are flexible and scalable, empowering scientists to explore current and emerging applications, like single-cell, whole-exome, and RNA sequencing. Redesigned from the ground up, these easy-to-use systems feature an improved user experience with simplified run setup, minimal touchpoints, and flexible informatics solutions, including onboard DRAGEN. Their breakthrough system design uses integrated reagent cartridges to minimize waste volume and improve recyclability.

*Compared with the NovaSeq 6000 S4 200-cycle kit.

Investing in strategic collaborations

Together with changemakers across the ecosystem, we're finding answers to life's biggest questions and broadening the positive impact of genomics around the world.

[See the full list of collaborations.](#)



Supporting genomic startups*

Genomic startups are playing an increasingly important role internationally in the expansion of the genomic ecosystem. [Illumina for Startups](#) is our way of accelerating innovation in the entrepreneurial community by partnering with leading venture capital investors and entrepreneurs to create, launch, and grow genomic startups. In 2023, we transitioned operations of the Illumina Accelerator to Illumina Ventures Labs to further expand the program and build on success to date.

74

startups launched

\$1B+

VC funding secured

93%

startups raised capital

47%

female founders

Comprehensive support for our customers

Illumina provides a wide range of global, in-language support including remote technical support 24/5, onsite training, instrument qualification, and customized onboarding solutions. Because of this, **9 out of 10** customers find it easy to do business with our team.

96%

customer satisfaction

3000+

trainings per year

97%

of calls answered in < 30 seconds

15+

Illumina Solution Centers

< 1

day mean time to repair

600+

support personnel

2-day

average field service engineer response time



Alliance for Genomic Discovery

The Alliance for Genomic Discovery (AGD) is a multiyear agreement that aims to accelerate therapeutic development and expand the diversity of genomic data through the inclusion of more samples from currently underrepresented ancestries. In 2023, AGD announced its five biopharma members: AbbVie, Amgen, AstraZeneca, Bayer, and Merck. The members will cofund the whole-genome sequencing of 250,000 samples and have access to the resulting data for use in drug discovery and therapeutic development. [Learn more](#)

*In 2023, Illumina Accelerator relaunched as part of Illumina® Ventures Labs. [Read the press release.](#)

Affordability

Driving down the cost of sequencing

At Illumina, we are focused on lowering the cost of sequencing and enhancing the value beyond the cost per genome.

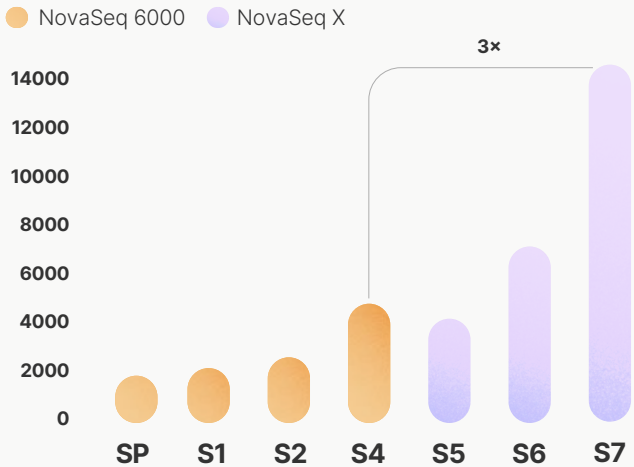
Since 2001, the cost of DNA sequencing has dropped by more than 100,000×, from \$100 million USD per human genome to \$200 USD on the NovaSeq X Series using the 25B flow cell.



Sequencing more samples with the same budget

NUMBER OF EXOME SAMPLES

Comparison chart



Exome sequencing was performed on the NovaSeq X Plus System with 25B flow cells and on the NovaSeq 6000 System with S4 flow cells using the same total project budget. This analysis is based on sequencing 8 Gb per exome.

Pricing transparency

Illumina is committed to offering prices that enable broad access to genomic technology. We maintain a responsible approach to pricing our products. We negotiate and partner with health care systems, payers, and research institutions to make our products available at a fair net price.

To support our customers and increase access, Illumina has:

- **Launched the NovaSeq X**, a new production-scale sequencing system that will push the limits of what's possible with genomic medicine, enabling faster, more powerful, and more sustainable sequencing
- **Created an emerging markets pricebook** to enable differential pricing for products with more significant impact and relevance to low- and middle-income countries

Illumina sets and adjusts list prices based on several factors, including cost, inflation, and market dynamics. Prices are available to customers through their account managers or online at myillumina.com. Prices are also visible to customers on their invoices and billing statements. As in past years, Illumina price increases were at or below inflationary indices while absorbing many of the temporary cost increases driven by global supply chain issues. For example, in the US in 2023, the Illumina annual price change was below the US Consumer Price Index. Illumina pricing reflects its value proposition and enables the company to continue to innovate for our customers and accelerate access to genomics for all.



Illumina launches Global Health Access Initiative to support acceleration of pathogen sequencing in low- and middle-income countries

With the launch of the Global Health Access Initiative, we aim to support access to pathogen sequencing tools for public health in low- and middle-income countries (LMICs). The program, developed with guidance from customers, funders, and market facilitators including the nonprofit [FIND](https://find.fund), will provide reduced pricing structures for eligible sequencing products from Illumina to qualified global health funding entities and address key international logistics and supply chain challenges. [Learn more](#)

Reach

Democratizing and increasing the reach of genomics and genomic sequencing can enable families, communities, and whole populations to harness the benefits of next-generation sequencing (NGS). Realizing the potential of the genome requires global data that is representative of the diversity of our populations.

Broaden the impact of genomics



Increase genomic data diversity



Advance genomic literacy



Champion patients



Increase genomic data diversity

Genomics has been integrated into clinical practice at a faster rate than almost any innovation in the history of medicine, but inequities still exist. Implementation has been almost entirely restricted to more developed nations, and [78% of people](#) included in genomic studies of disease risk are of European ancestry.

To ensure that genomes can be interpreted in the appropriate context of global diversity, we aim to increase the equitable representation of genomic data. This allows for therapies and solutions to be attuned to a broader set of genomes, decreasing this bias in our medicine for the future.

Initiatives to increase genomic data diversity

We are proud to support efforts to increase diversity in human genetics and ensure that genomic representation is part of equitable health care for generations to come.



SAMPLE INITIATIVES

- [Qatar Genome Program](#)
- [Egyptian Genome Project](#)
- [WeGene Collaboration](#)
- [Singapore's SG100K project](#)
- [Human Heredity & Health in Africa](#)
- [African Centre of Excellence for Genomics of Infectious Diseases \(ACEGID\)](#)
- [The New York Genome Center's Polyethnic-1000 project](#)
- [Native BioData Consortium](#)
- [Alliance for Genomic Discovery](#)
- [Australia's OurDNA initiative](#)
- [The Silent Genomes Project](#)



Bridging the diagnosis gap for Canada's Indigenous children

[The Silent Genomes Project](#) is building a first-of-its-kind variant library for First Nations, Inuit, and Métis populations. The lack of reference data for Canada's Indigenous groups leaves clinicians with hundreds of thousands of variants of unknown significance, creating health care inequity as Indigenous patients face more difficult and uncertain paths to diagnosis. The project is correcting this inequity through sustained, concerted partnerships between researchers, clinicians, and Indigenous communities across Canada. [Learn more](#)

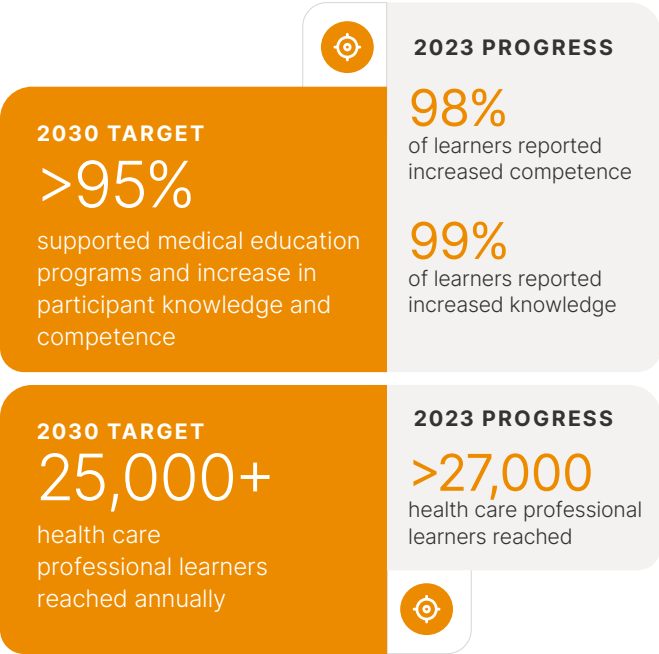


Advance genomic literacy

To accelerate access to genomics, we need to boost awareness and adoption. We advance genomic literacy by supporting health care professionals and by driving equitable access to STEM education to inspire the next generation of scientists, innovators, and trailblazers.

Health care professionals

We are committed to expanding understanding and access to genomic testing through our outreach to community health systems. In our third year of supporting the [American Society of Human Genetics](#), we backed online education for genetics professionals. This support reached more than 900 learners in 2023 alone and more than 2500 since July 2021. Additionally, we have continued to support the growing trend of reaching learners through medical education podcasts with more than 50,000 podcast listens in 2023, many of which focused on genomics in cardiology.



Future workforce

The future of our mission relies on nurturing and equipping the next generation. Through direct programming, nonprofit partners, and employee engagement, we aim to enable educators to be advocates of genomics and inspire learners of all ages to envision themselves as future leaders in STEM.

[Learn more about how we are nurturing a diverse and inclusive STEM workforce for the future and for our company.](#)

Our STEM strategy

We work to integrate STEM and genomics into the education ecosystem where educators and students have access to resources.



SD2's H. Puentes and student Alejandro Pliego visiting Illumina headquarters

Alejandro Pliego's journey into STEM

Alejandro Pliego is a fellow of the yearlong mentorship program offered by [San Diego Squared \(SD2\)](#) and a recipient of the Illumina SD2 STEM Scholar Award. SD2, a grant recipient of the Illumina Corporate Foundation, connects high school students from underrepresented communities to hands-on STEM education, mentorship, and other resources. Alejandro is attending Princeton, class of 2027, and is the first member of his family to go to a four-year college. He plans to focus his studies on molecular biology and public policy. [Read more](#) about Alejandro's journey.

Champion patients

Transforming patient outcomes epitomizes the heart of our mission. We partner with patients, families, and organizations that represent communities to help raise awareness, build hope, and create change.

iHope

iHope is a philanthropic effort that provides clinical whole-genome sequencing (cWGS) to underserved families around the globe. It was created in 2017, bringing together a wide range of organizations aiming to shorten the diagnostic journey and inspire hope.

2312

patients impacted since inception

43%

of patients receive diagnosis after cWGS

26

iHope clinical sites worldwide

68%

of cases received in 2023 from LMIC sites

Our expansion of the iHope program includes iHope Genetic Health program under the auspices of the nonprofit [Genetic Alliance](#) and [iHope China with March of Dimes](#).







A notable example of change of management includes a 13-year-old boy from Lima, Peru, with treatment-refractory epilepsy, developmental delays, a moderate cognitive deficit, muscular atrophy, and subclinical hypothyroidism, who first presented with seizures at two months of age. The only available testing locally was karyotype and methylation analysis for Prader-Willi syndrome, which were pursued, and the results were normal. Trio-based genome sequencing identified a diagnosis of *GLUT1* deficiency syndrome, for which a ketogenic diet is the recommended treatment. He began a ketogenic diet, which resulted in near complete cessation of his seizures.

2030 TARGET

50,000+

patients supported through iHope programming

2023 PROGRESS

2312

patients supported





Pathogen genomics surveillance in low- and middle-income countries

We are proud to be part of the Pathogen Genomics Initiative (PGI), a multi-sector collaboration with global funders, industry, nongovernmental organizations, and public health agencies to enhance disease surveillance and public health through integrated, cross-continent laboratory networks equipped with the tools, human resources, and data infrastructure to fully leverage critical genomic-sequencing technologies. Illumina committed \$60 million to support the initiative with in-kind donations, including NGS platforms, reagents, and training. PGI will bring us closer to the vision of an early warning system to detect new epidemics and apply genomics to benefit all.

Increasing access to molecular testing for patients with ovarian cancer



Left to right: Anne McDonnell (Major Gifts Officer, Clearity Foundation), Ilianna Vargas (Marketing and iLatinX ERG Chair, Illumina), Hillary Theakston (Executive Director, Clearity Foundation), Lorena Gurule-Montes (Community Engagement, Clearity Foundation), Shirlene Badger (Patient Advocacy, Illumina), and Emily Dalton (Medical Affairs, Illumina)

An estimated 19,710 people in the US were diagnosed with ovarian cancer in 2023, according to the [National Cancer Institute's Surveillance, Epidemiology, and End Results Program](#). Most learn of their condition only after the cancer has spread beyond the ovaries or fallopian tubes, making the disease difficult to treat and manage.

Illumina and the Clearity Foundation, a nonprofit organization dedicated to improving survival and quality of life for ovarian cancer patients, launched an innovative program to address inequities in education, information, and access to molecular testing and clinical trials. Its mission is to actively learn about the experiences of Latin Americans and Black Americans diagnosed with ovarian cancer, increase access to the highest attainable personalized care available, and support patients' agency to achieve improved cancer experiences. This partnership supports our efforts to increase diversity, equity, and inclusion in health care and research, further democratizing access to genomics. [Learn more](#)

Patient coverage and reimbursement

Enabling innovation and driving affordability go beyond delivering sequencers and data. It includes delivering insights and accelerating the paradigm shift toward genomic sequencing as a standard of care to improve patient outcomes and drive down overall health care costs. Through evidence generation, education, and community outreach, Illumina is committed to advocating for health care coverage and accelerating the adoption of genomics as a diagnostic tool.

- 1 Evidence generation for clinical utility
- 2 Education of health care providers and government representatives
- 3 Expanded reimbursement and payer engagement
- 4 Increased adoption

“The products I work on as an Illumina scientist are used globally by many labs to diagnose patients with rare diseases, cancer, and other conditions every day. This feels like my work is amplified; rather than doing one test at a time, I can impact many families across the world!”



Samuel
Principal Scientist

2030 TARGET

2 Billion

covered lives globally
by 2026

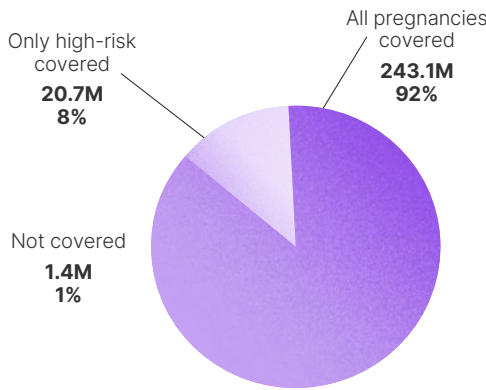
2023 PROGRESS

1.3 Billion
covered lives



Noninvasive prenatal testing (NIPT)

Total insured lives 265.2M



Global coverage snapshot*

2023 PROGRESS

1.02 Billion

↑ 33 Million YoY growth



1.02B lives covered for NIPT
translates to

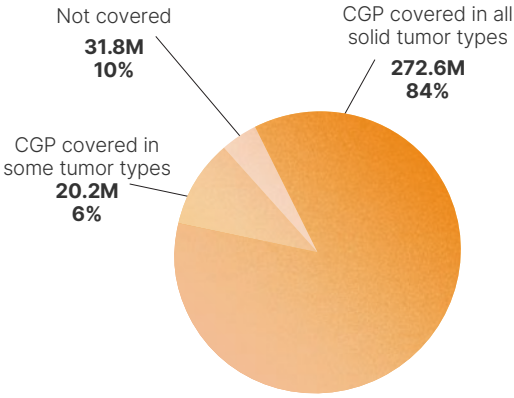
>9M

eligible pregnancies per year

US Coverage Data (EOY 2023)

Comprehensive genomic profiling (CGP)

Total insured lives 325.1M



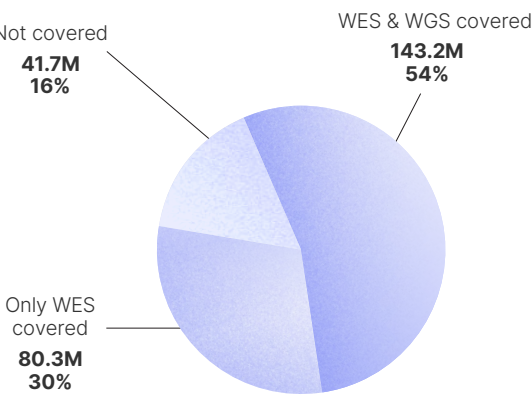
2023 PROGRESS

745 Million

↑ 61 Million YoY growth

Whole-exome and genome sequencing (Genetic disease)

Total insured lives 265.2M



2023 PROGRESS

613 Million

↑ 76 Million YoY growth

Based on coverage and reimbursement of NIPT, CGP in advanced cancer, or WES/WGS in genetic disease.

*Global coverage numbers represent our tracking of 19 countries globally (US, Canada, Belgium, Czech Rep, Denmark, France, Germany, Ireland, Italy, Netherlands, Spain, Sweden, UK, Israel, Japan, S Korea, Australia, China, Brazil).

Demonstrating the clinical utility of genomics internationally

Below are some strategic evidence projects and coalitions formed to engage health systems worldwide and demonstrate clinical utility:

- Optum/United Healthcare Group (United States):** This collaboration continues to generate evidence across rare diseases, oncology, and cardiovascular diseases, culminating in 2023 in the publication of multiple conference presentations and manuscripts.
- Providence (United States):** Illumina is collaborating with Providence Health & Services to generate evidence of the clinical and economic utility of CGP in patients with advanced cancer. The collaboration has resulted in more than 10 scientific congress presentations and four manuscripts in development.



- Omico (Australia):** [Omico](#) enables patient access to cancer genomic tests via clinical initiatives in Australia. Illumina collaborates with Omico to demonstrate the clinical utility and economic value of cancer genomic testing, which will inform clinical practice and payer coverage decisions.
- Baby Lion (Germany):** Hannover Medical School, in collaboration with Illumina, is evaluating the benefit of WGS in critically ill babies and infants in intensive care settings (NICU/PICU) who are thought to have a genetic disorder.
- Baby Bambi (Israel):** The results of this study have now been published and following the completion of the project, Israel has commissioned WGS in the NICU as a nationwide benefit.
- BALLETT (Belgium):** This study has recruited more than 900 metastatic cancer patients from 12 hospitals in Belgium, with testing in nine NGS laboratories, to demonstrate the utility of CGP within a nationalized single-payer system.

Explore more studies, projects, and coalitions:

- [QuicDNA](#) (Wales)
- [IMPRESS](#) (Norway)
- [CAPS](#) (Coalition for Access to Prenatal Screening)
- [ACGP](#) (Access to Comprehensive Genomic Profiling)
- [WGS](#) (The Whole Genome Sequencing Alliance)
- [APACMed](#) (Asia Pacific Medical Technology Association)



Illumina leads new European multi-stakeholder coalition to accelerate the adoption of CGP

Illumina is a proud founding member of the [European Coalition for Access to Comprehensive Genomic Profiling](#) (ECGP), launched in June 2023. ECGP aims to create multi-stakeholder outputs to improve cancer care through increased routine clinical access and reimbursement of CGP, with the ambition to deliver the right treatment to the right patient at the right time given widespread adoption of personalized medicine. Under ECGP, patients, clinicians, pathologists, health economists, and industry leaders will identify and share best practices and develop evidence-based policy recommendations on the clinical and economic utility of CGP for payers and other decision-makers, based on multi-stakeholder and multidisciplinary perspectives.

Impact in action

PrimateAI-3D: Improving genetic risk prediction and drug target discovery using primate DNA and advanced artificial intelligence



Each person carries millions of genetic variants that underlie individual differences in health and disease risk, but most of these variants are presently of unknown function. To help address this gap, scientists at Illumina, in collaboration with specialists from 24 countries, sequenced over 800 individuals from 233 species of nonhuman primates, representing all 16 families and over 86% of living genera.

Leveraging the data from this study, Illumina announced PrimateAI-3D, an artificial intelligence algorithm that predicts disease-causing genetic

variants in patients with unprecedented accuracy. [Learn more](#)

Illumina and ACEGID to increase Africa's genomics capacity through establishment of a joint training academy

Illumina partnered with the African Centre of Excellence for Genomics of Infectious Diseases (ACEGID) to increase Africa's genomics capacity through the establishment of a Joint Training Academy. The objective is to establish a Genomics and Bioinformatics training Academy within ACEGID at Redeemer's University, Ede, Nigeria. Illumina and ACEGID will also explore the implementation of a "mobile lab-in-container" that will enable real-time and on-the-move sequencing for outbreak responses in West Africa. [Learn more](#)



Opening first Solutions Center in India

The new Illumina Solutions Center features a fully equipped laboratory housing the latest NGS and array technologies, and it is fully resourced with field applications and service engineers to offer Illumina partners and customers broad genomic capabilities. The center will support our growing number of channel partners in the region by providing training and education to increase local technical expertise and access to genomics. [Learn more](#)

More than 4500 students in Singapore benefited from new STEM partnership

In 2023, Illumina partnered with the Science Centre Board Singapore to run a yearlong initiative where more than 4500 primary and secondary students attended DNA-themed sessions at the Science Centre to learn about DNA and life sciences through hands-on DNA extraction experiments. We expanded our STEM education efforts across APAC in 2023, growing our outreach to 8500 from 1400 in 2022. [Learn more](#)



Annual rare disease awareness campaign #IlluminatingRareDisease

Our employees are passionate about the rare disease community. They understand the power of genomics to help end a patient's diagnostic journey and support their care management. Since 2008, Rare Disease Day events have taken place around the world on the last day of February to raise awareness about rare diseases and highlight their impact on patients' lives. Each year, our employees participate in a campaign and the Illumina Corporate Foundation donates to the chosen charities in each region for the year.



A liquid biopsy study offers new hope for lung cancer patients

Lung cancer patients in Wales are about to get answers faster—and potentially find out if they're a match for targeted therapies.

In collaboration with Illumina and 13 other organizations, AWMGS, the single provider of genetic services in NHS Wales, will make liquid biopsies available to 1260 lung cancer patients consecutively across the country's seven health boards, under a partnership named QuicDNA. Rather than excising tissue from a patient, a liquid biopsy uses a simple blood draw, since fragments of tumor DNA shed into the bloodstream. The blood samples with circulating tumor DNA (ctDNA) are sequenced on a 500-gene panel. The approach is known as comprehensive genomic profiling (CGP) and it can assess multiple biomarkers in numerous tumor types in a single NGS assay. [Learn more](#)





Nurture our people and communities

Strategic approach and impact

We are committed to creating a workplace centered on innovation and care that values the unique talents of the individual, brings forward the best of the collective, and delivers on the Illumina mission at a global scale.

We are also committed to giving back, creating shared value through our business, and seeking opportunities to engage our people to be agents of change.

Our extraordinary mission requires extraordinary people and leaders at every level. By nurturing an inclusive and caring culture, we magnify the value of collaboration and building a community. Together our impact is amplified, and our potential is unlimited.

KEY OBJECTIVES

- 1 Practice diversity, equity, and inclusion
- 2 Attract extraordinary talent
- 3 Invest in our people
- 4 Support employee health, safety, and well-being
- 5 Engage our people and communities

2023 HIGHLIGHTS

45%

female workforce representation

5%

increase in female executive leadership in the last three years

Zero net pay gap

maintained for a fifth consecutive year

52%

minority representation in the US workforce

58%

employee participation in giving and volunteering

350K

STEM learners reached for 2023

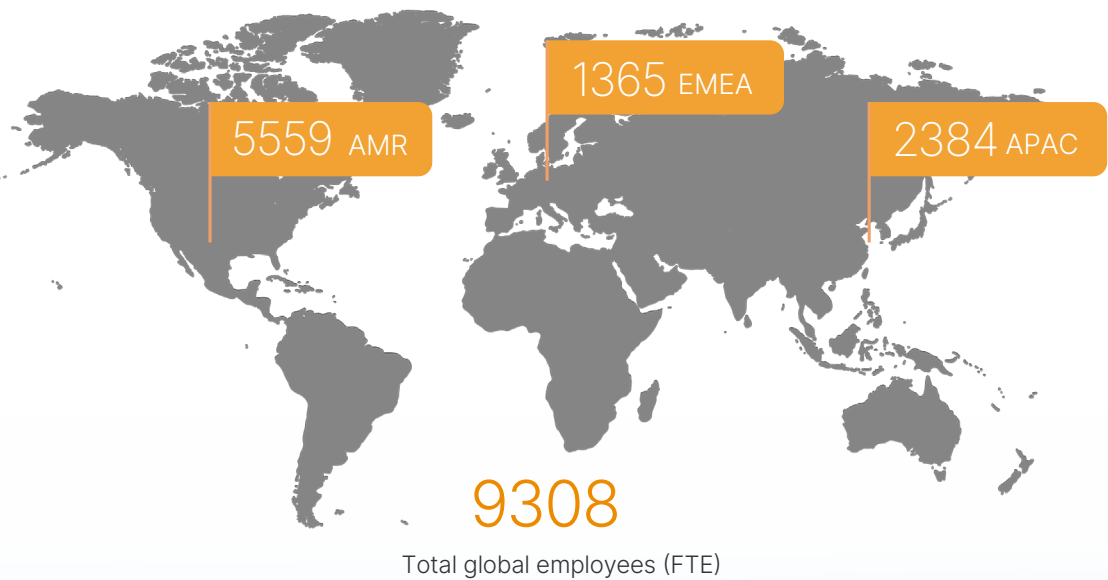


UN SDGs

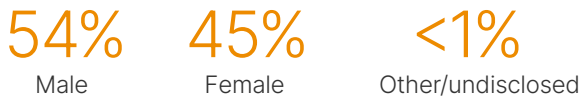
- 3 GOOD HEALTH
- 4 QUALITY EDUCATION
- 10 REDUCED INEQUALITIES
- 17 PARTNERSHIPS FOR THE GOALS

Our people

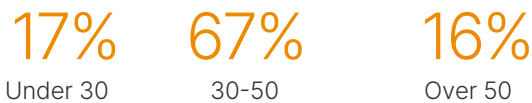
Everyone at Illumina is driven by the power of genomics to positively impact the world. We seek opportunities. We embrace challenges. We work tirelessly to move genomics and humanity forward.



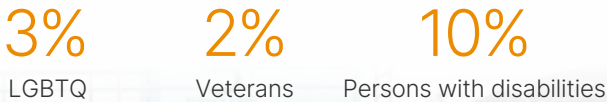
GENDER REPRESENTATION (GLOBAL)



EMPLOYEE AGE DISTRIBUTION (GLOBAL)



ADDITIONAL IDENTITIES (US)

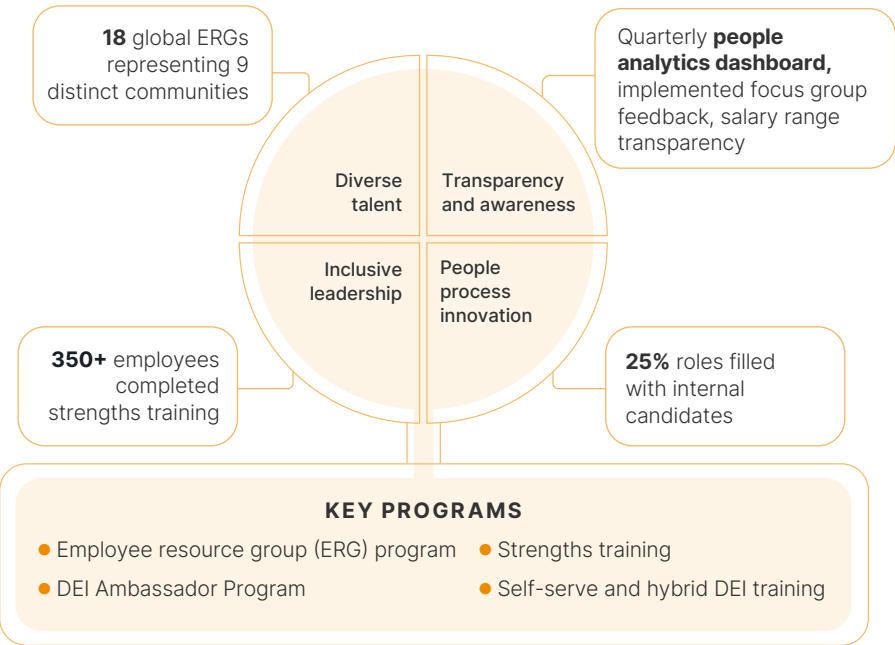


Practice diversity, equity, and inclusion

We relentlessly practice diversity and inclusion in all we do to advance equity and belonging.

DEI strategy

Our DEI program is anchored in the philosophy of practice, appreciating that there is always more to learn. We embed our DEI efforts across our business by acquiring and developing diverse talent, building inclusive leadership skills, advancing equity in people processes, and cultivating a culture of belonging.



2030 TARGETS	2023 PROGRESS
Increase gender representation in global leadership*	4% Increase (2019 baseline)
Increase minorities† in executive leadership (US)	8% Increase (2019 baseline)
Increase underrepresented minorities† in workforce and leadership*	2% Increase (2019 baseline)

*Leadership: manager, equivalent, and above.
†Minorities (US): Asian, Black, Native, Pacific Islander, Hispanic or Latino, two or more.
‡Executive leadership: director, equivalent, and above.

Pay equity

Our pay practices are designed to compensate employees based on factors such as job performance, expertise, and experience relevant to individual geography. We monitor our pay equity status and market competitiveness on an annual basis.§ **For a fifth consecutive year, we are proud to confirm a zero net gap in pay**** regardless of gender, race, age, ethnicity, sexual orientation, national origin, or any attribute that does not relate to the employee job and contribution.

Expanding pay transparency

As part of our commitment to pay equity and equitable processes, we provide salary range transparency on all US job postings. We also provide all employees with access to the salary range for their current position via our HR system.

2030 TARGET	2023 PROGRESS
Maintain zero net pay gap	Maintained zero net pay gap for a fifth consecutive year

Equal opportunity and nondiscrimination policies

We support the elimination of discriminatory practices in employment. We are committed to fair and respectful treatment of all employees, promoting equal opportunity and diversity in the workplace and all aspects of our business. Our policies prohibit discrimination based on race, color, age, gender, sexual orientation, marital status, gender identity and expression, ethnicity, religion, physical or mental disability, medical condition, genetic information, veteran status, national origin, or any protected class.

§Equal pay refers to paying equal pay for equal work.
**Zero net gap in pay means no statistically significant difference in pay for the same or similar work, regardless of gender, ethnicity, or race.

As part of our commitment to DEI, we are the proud signatories of:

- UN Women Empowerment Principles
- UN Global Compact
- CEO Action for Diversity and Inclusion
- Disability:IN CEO Signatory

Employee resource groups (ERGs)

ERGs are a cornerstone of our DEI strategy and a key lever to identify, develop, and retain talent. They deepen our respectful, inclusive culture by engaging employees and providing an opportunity to connect, celebrate, and learn with peers and allies.

“ I feel lucky to have this community. I have created connections and have grown with colleagues in a way that has given me space to be my authentic self and have genuine connections. I love that our ERGs are here to help make sure everyone has a chance to find that community.”



Jordan
iPride ERG leader



Our employee resource groups



National Hispanic Heritage Month

To kick-start the celebration of National Hispanic Heritage Month in the US this year, the Illumina iLatinx ERG hosted Mariachi & Paletas, offering employees the chance to enjoy sweet treats and socialize to the tunes of a live mariachi band at our San Diego headquarters, and learn about the culture and community. The iLatinx ERG planned this event to introduce themselves to the community and bring people together in celebration of Latino and Hispanic cultures.



Attract extraordinary talent

Illumina is made up of extraordinary people and dedicated professionals who are all in on creating a better world through genomics. Everyone shares a commitment to our mission, and it shows in our enthusiasm for the work we do together. Our shared curiosity to discover and our drive to achieve create deep connections among our people as we pursue world-changing innovations. In every role, the feeling we get from working at Illumina is remarkable. The environment is motivating, and the experience is unmatched.

The talent acquisition strategy at Illumina plays a critical role in supporting our mission and fostering our unique culture. As a global organization, our recruitment efforts seek exceptional talent with diverse backgrounds and unique skill sets to deliver on the transformative power of genomics.



University recruitment

Nurturing and investing in future talent is critical to the Illumina growth strategy. Robust engagement with key universities allows us to create long-term relationships with students, graduates, professors, and university faculty. We create meaningful student experiences through special events, professional development workshops, technical talks, and campus ambassador programs. Our hybrid approach meets students where they are by offering both virtual and in-person sessions across multiple time zones.



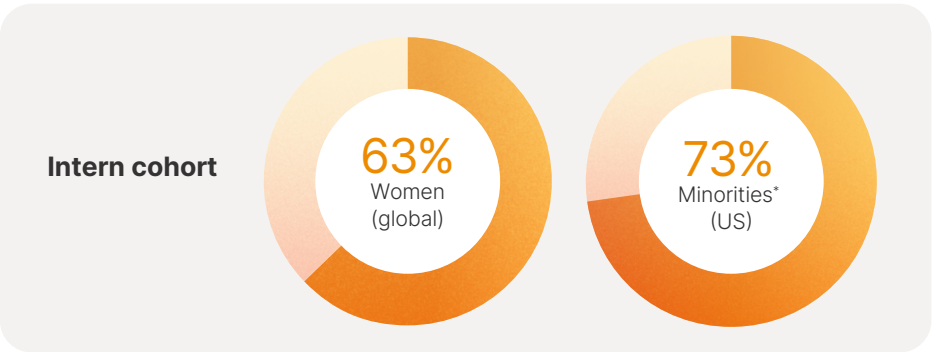
Diverse talent

As we invest in the future, one of our key priorities continues to be supporting and engaging with underrepresented student groups, including school chapters of the Society of Women Engineers, the National Society of Black Engineers, and the Society of Hispanic Professional Engineers, and many others.



Internship program

We know that students and graduates are innovators, creators, and the future of Illumina. Every year we welcome an extraordinary group of interns, work experience students, and apprentices around the globe. Our programs provide endless opportunities for meaningful work, professional development, and community impact projects.



*Minorities (US): Asian, Black, Native, Pacific Islander, Hispanic or Latino, two or more.

The next generation of changemakers

We are committed to equitable access to STEM education, with the goal of empowering students and enabling educators to inspire the next generation of scientists, innovators, and trailblazers for the workforce of the future. To do this, we collaborate with community partners and engage our employees to reach and empower students of all backgrounds. We aim to inspire learners to envision themselves as future leaders in STEM and at Illumina.

DNA Day STEM outreach: The Future Is Bright

In honor of DNA Day, celebrated annually on April 25, we host The Future Is Bright, a genomic literacy initiative. Illumina employees around the globe connect with students by hosting career panels, implementing genomic curricula, and leading hands-on experiments. [Learn more](#)

2023 FUTURE IS BRIGHT IMPACT

100,000+

learners across six countries and every US state

71%

of US classrooms were Title 1 schools where low-income families make up at least 40% of enrollment

130+

events

2300

donated strawberry DNA extraction kits

1600+

community partners and schools

1500+

employee volunteer hours

Invest in our people

At Illumina, everyone can achieve and become more than they thought possible. We aim to create the opportunities and environment to unlock the full potential of our people.

Development at Illumina is an intentional, everyday activity that prepares employees for success in their work now and for opportunities in the future. It is available to all, accessible in many formats, and contributes to a meaningful career experience at Illumina. Development is the catalyst for how we achieve success and become more than we ever thought possible—as individuals, as teams, and as an organization. Regardless of work arrangement or location, opportunities exist for continuous learning and growth.

To ensure that our employees enjoy long and fulfilling careers at Illumina, we:

- Provide leadership development for all levels of leaders as they grow their careers
- Encourage everyone to give feedback and recognition
- Enable employees to lead quarterly development discussions with their managers and gain clarity on their priorities
- Provide resources that build great teams and high performance
- Provide access to professional development and on-the-job experiences



Leadership development at Illumina

Leaders actively prepare for the future through a variety of formal development offerings.

- **Elevate Leadership Development Programs** – These address the key challenges facing leaders at all levels of the organization and provide the needed tools, mindsets, and coaching for success
- **Power Hours** – A leadership development program for frontline leaders, run by subject matter experts, to develop the skills and knowledge required to lead teams effectively
- **Discussion and Lean In Circles** – Our business leaders host discussions on important topics, such as Moving into Management and Managing Your Career. We also support Lean In Circles through our Women at Illumina Network (WIN) ERG.
- **Mentoring Programs** – The Horizons ERG hosts buddy programs, connecting early career professionals with seasoned employees, and WIN offers a mentorship program called iMentor

“I have been very fortunate to have fantastic leadership in my time at Illumina. This has inspired me to take on a leadership role myself. I am now a new people leader and continue to receive both formal and informal leadership training to help me best support my team.”



Will
Manager, Laboratory Programs

- **Culture of Coaching** – Our Coaching Learning Path highlights a variety of options to help leaders learn, practice, and build their coaching skills
- **Leaders in Action** – Leaders helping leaders grow their skills and expand their impact
- **Thrive New Leader Orientation** – Targeted to newly hired and promoted leaders at Illumina, this provides insight into Illumina’s leadership philosophy
- **Ignite** – This series brings external thought leaders to speak on leadership topics to provide ongoing and regular development
- **Strengths-Based Training Program** – Using the CliftonStrengths Assessment, this program is designed to build self-awareness of strengths and an appreciation for what colleagues contribute, helping drive DEI through our work

- **Over 350** participants in the Strengths-Based Training Program
- **70%** of leaders attend at least one development program each year with an average satisfaction rate of over 85%
- Leaders have access to over **18,000** on-demand learning courses



Recognizing success

We have designed several programs to recognize employees’ outstanding achievements, including:

- **Innovation Award** – Recognizes this core element of our culture and success by annually celebrating our pioneering scientists for their extraordinary contributions
- **Inventor Award** – Annually recognizes employee inventors who contribute to our patent applications
- **Values Award** – Presented to individuals and teams nominated by their peers for exemplifying our values

2023 ILLUMINA INVENTORS BY THE NUMBERS

453

Total inventors

163

First-time inventors

42%

US inventors are minorities

26%

US inventors are women

36%

UK inventors are women

40%

Singapore inventors are women

29%

Female inventors

2×

Illumina female inventors compared to the [national rate](#) of women receiving patents

In 2023, Illumina employees filed a record **211 new patent applications**. Illumina has a total of **9893 issued patents** worldwide.

Employee health, safety, and well-being

Building extraordinary teams and breakthrough innovations starts with caring for our employees and putting their welfare at the heart of all we do.

Employee benefits

We offer a world-class portfolio of benefits and well-being programs beyond the standard medical benefits, and extend these benefits to employees, spouses, domestic partners, and dependent children. Every day, our technology is being used to improve human health—enabling advancements that were not possible just a few years ago. Our employees receive access to these new technologies, such as workplace genomics, reproductive health programs, and cancer testing, to help better inform their health care decisions. Our employee benefits, which vary by country and region, recognize the tremendous value our people bring to the business with an array of meaningful programs.

Workplace genomics program*

Through our partner Genome Medical, we provide access to genetic experts who can consult, guide, and facilitate testing for employees and their families. In addition, we offer financial support for cancer tests, reproductive health tests, and clinical whole-genome sequencing (cWGS) for rare and undiagnosed diseases.

Cancer early detection testing

The Galleri® multi-cancer early detection test is available at no cost to eligible employees in the US and their dependents as part of our Workplace Genomics Program.

Supporting growing families*

Employees, their spouses, and their domestic partners may be eligible for the company-sponsored reproductive health program either through insurance or financial support, covering:

- Assisted reproductive technology
- Pre-implantation genetic testing
- Noninvasive prenatal testing

Through our partner Progyny, we offer a comprehensive fertility benefit program to eligible US-based employees that covers fertility preservation, providing equitable access to care for our diverse employees, including those pursuing nontraditional paths to parenthood.

US employees also receive access to Cleo, a comprehensive family support system for their journeys to parenthood, returning to work, and managing life as a parent.

Providing time to recharge

- Flexible time off
- Two days of paid volunteer time off
- Minimum 10 days of holiday paid time off
- Company-wide shutdowns in July and December
- Compassion and care time off

Fostering wellness inside and out

- Medical, dental, and vision coverage
- Pretax spending accounts
- Employee assistance program (EAP)
- Wellness rooms for nursing, meditation, and prayer
- Business travel medical insurance
- Gym access or membership
- Ergonomic workstations, abundant natural light, and opportunities to work outdoors
- Cafeterias offering sustainable, healthy food options, including vegetarian choices
- Genetic counseling

Health solutions (US)

- Cancer support and expert advisory review through AccessHope
- Expert guidance for diagnosis, treatment, or finding the best physician through Included Health (US)

- Digital musculoskeletal (MSK) physical therapy care solution with Hinge Health
- Comprehensive mental health program for employees, dependents, and all household members through Lyra Health

Investing for the future

- Employee stock purchase program
- Retirement savings plans
- Pensions (EMEA)
- Life and accident insurance
- Disability insurance
- Independent financial advice
- Tuition assistance

Additional perks and benefits

- Site amenities, including car washing, dry cleaning, mobile salons, food service, mindfulness, and self-improvement courses
- Employee referral program
- Donation matching program
- Special interest clubs
- Commuter support



Workplace health and safety

We prioritize the safety and well-being of our employees, contractors, and the communities where we work. Our policies follow a risk-based strategy that guides the assessment, evaluation, reduction, and management of environmental, health, and safety (EHS) risks while enhancing the overall effectiveness of our global operations.

EHS programs

Our vision is for every Illumina employee to be an environmental, health, and safety leader. We are dedicated to fostering a culture of safety, promoting continuous improvement and enhancing the maturity of our EHS programs.

2023 HIGHLIGHTS

- Received the Workplace Safety and Health Council Silver Award from The Workplace Safety and Health (WSH) Council at our Singapore site.
- Implemented a new safety and risk management best practice in our Americas operations with QR codes posted at equipment linking to diagrams and steps to safely deenergize.
- Implemented an Industrial Athlete Program for our Americas operations. Supported by an onsite industrial injury prevention specialist, this program focuses on preventing and managing work-related musculoskeletal disorders by taking a sports medicine model and applying it to the workplace. The program rollout had 135 participants, 42% of whom reported preventive measures helped minimize the potential escalation of reported injury.

Global EHS management system

We embrace our mission by establishing, implementing, and maintaining an integrated global EHS management system. Our Singapore site recently achieved recertification, demonstrating our commitment to upholding these voluntary standards, consistent with ISO 14001 and ISO 45001. [Learn more](#)



Ergonomic Champion

In 2023, we established a global ergonomic champions network. Meet **Sem Yeng**, a dedicated member of the Illumina family since 2010, currently serving as a senior supervisor in Instrument Operations. Sem Yeng’s transformative journey, evolving from a technician to leading a team of 25 employees, exemplifies not only professional growth but underscores his unwavering commitment to cultivating a safer and healthier workplace.

Sem Yeng and his team’s proactive approach led to the in-house design of several smart lifting solutions tailored to reduce physical strain during manual lifting. Notably, our instrument operations team in Singapore boasts a remarkable record of zero ergonomic-related injuries. The in-house design of smart, multi-directional lifting solutions have also garnered recognition with two Gold Safety Innovation Awards from the Singapore Manufacturing Federation and the Workplace Safety Health Council Singapore.

Prevention and preparedness

The Illumina EHS Global Injury and Illness Prevention Program (IIPP) describes basic processes our employees can take to maintain a safe and compliant workplace. Our Emergency Action teams work together to create awareness and lead regular preparedness drills and activities. This precautionary approach* is embedded in our risk assessments, our environmental aspects/impacts, our EHS policy, our product stewardship, and the engagement of our people.

2023 SAFETY PERFORMANCE

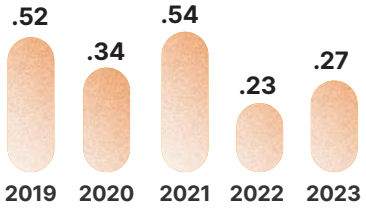
4135	43,067
Prevention reports	Hours of EHS-related training
177	.03
EHS risk assessments completed globally	Increase in days away, restricted, or transferred rate*
184	.27
Ergonomic evaluations completed	Recordable injury and illness rate

LEARN MORE

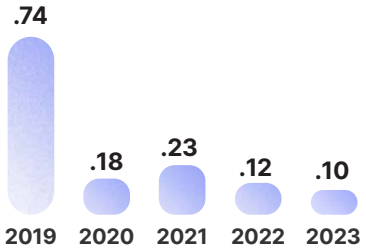
- [EHS policy](#)
- [14001 certificate](#)
- [45001 certificate](#)
- [Injury and Illness Prevention Program \(IIPP\)](#)

ENVIRONMENTAL, HEALTH, AND SAFETY TRENDS

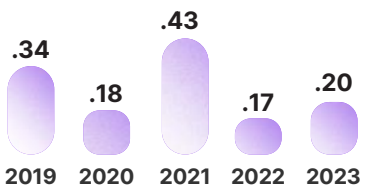
Recordable injury & illness rate



Lost time illness rate



Days away, restricted, or transferred (DART)



*UN Global Compact Principle 7 and Principle 15 state that in order to protect the environment, the precautionary approach shall be applied.

*Reduction reflects year-over-year comparison between 2022 and 2023.

Employee engagement and community impact

Engage our people to be agents of change

We strive to create a purpose-driven culture with opportunities for employees to volunteer in their community with the organizations that matter most to them. Guided by our CSR strategy focus areas, we deploy our skills, time, and resources to create a positive impact in our communities.

Employee giving and volunteer benefits

\$500

donation match

16

hours paid volunteer time off (VTO)

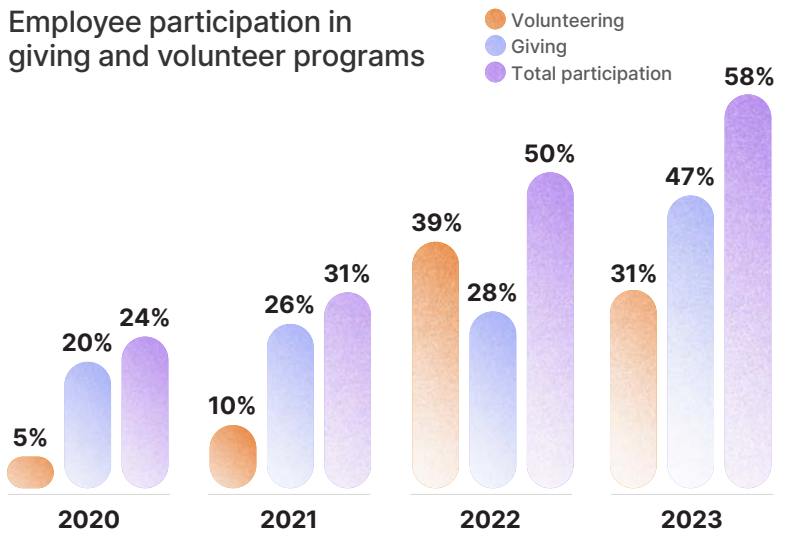
\$25

new hire seed donation deposit

\$10

Volunteer rewards donation earned for each hour of volunteer work

Employee participation in giving and volunteer programs



¹Since 2019 baseline

We offer a variety of ways for employees to give back. Employees can volunteer as individuals; with their families, teams, local sites, or regions; with ERGs; and through corporate global opportunities.



Students from the L'Association Franco-Libanaise pour l'Education et la Culture were invited to the **Dubai** Illumina office to learn and apply their knowledge about DNA and life sciences through a fun escape room game specially designed by Illumina employees.



Employees from Illumina **Korea** partnered with JUMP, a nonprofit educational social venture company, for the second year to host a group of underserved students at our Illumina Solutions Centre. Participants engaged in hands-on activities to learn about DNA and life sciences.



Leaders and employees in **Singapore** shaved their heads to raise awareness and fundraise close to USD \$65,000 for Children's Cancer Foundation.



Partnering with SEE Foundation, close to 50 employees and family members gathered at the Dongtan Wetland on Chongming Island in Shanghai, **China**, to clean up marine waste for the migratory birds that will be coming to spend the winter in November.



San Diego employees and their families head to the beach to support the annual International Coastal Clean Up day.

Community impact

We focus our community impact strategy on investments that support our mission and most material CSR issues. We drive collective impact and leverage our resources to help address local and global needs with philanthropic activities and nonprofit partnerships.



¹In order to be included in the Causes Database, an organization must meet their country's NGO guidelines. Organizations are then evaluated against 1,200 watch lists and a number of National Taxonomy of Exempt Entities Codes (NTEE) that are also excluded from matching eligibility. Illumina currently blocks charitable organizations that have been found to discriminate against a specific race, religion, ethnicity, sexual orientation, or gender identity.

Impact in action



Pedal the Cause

“This year was my seventh year participating in Pedal the Cause, a charity ride with 100% of proceeds going to funding cancer research in San Diego area. As scientist and a steminist, I’m passionate about this cause and a strong believer in finding cures through science. There is an incredible energy here of a community brought together by the shared goal of stopping cancer. It reminds me that there’s a path to a cure when people come together. This is why I ride—ride bicycles, fight cancer.”

Misha
Associate Director, Scientific Research

Q&A: An Illumina intern’s shift from academia to industry

When Adee Newman started her summer as a research associate intern at Illumina in June 2023, she had no prior industry experience. Originally from Palo Alto, California, she spent two years at De Anza College before transferring to University of California, San Diego (UCSD). Currently, she is a master’s student in biology with a research emphasis of epigenetics and genomics at UCSD. [Learn more](#)



illumina

25

YEARS OF INNOVATION

\$25

In honor of the Illumina 25th anniversary, we provided employees with \$25 to donate to a cause that matters to them.

UK STEM students get hands-on lessons in biodiversity and genomics

In 2023, Illumina partnered with the nonprofit organization Engineering Development Trust (EDT) and Industrial Cadets to guide students through genome-focused sustainability projects. Volunteers from Illumina worked with them on biodiversity assessments to learn about genomic applications in ecological conservation. [Learn more](#)



Global Wellness Charity Challenge: Virtual 5K Around the World

This year we had more than 1500 participants across the globe celebrate the 4th Annual Virtual 5K! The charity recipient was the Leukemia & Lymphoma Society.

Summiting Italy’s Stelvio Pass for cancer research

On September 2, 11 Illumina teammates embarked on a journey up the formidable Passo dello Stelvio as part of the Stelvio for Life charity event. As they cycled, walked, and even ran their way up this challenging mountain pass in the Italian Alps, they did so with a singular purpose: to support Stelvio for Life Foundation, an organization working to advance research into personalized cancer treatments.

This foundation is unwavering in its commitment to supporting the cancer research carried out by the Center for Personalized Cancer Treatment (CPCT) in the Netherlands. In recent years, the CPCT has conducted groundbreaking studies, including the Drug Rediscovery Protocol trial, a nationwide clinical research effort that matched patients with targeted therapies based on specific DNA alterations identified through whole-genome sequencing (WGS) performed by the Hartwig Medical Foundation. [Learn more](#)





Integrate sustainability

Scott

Sr. Specialist, Ethics & Privacy
Summit of Mt. Whitney, CA

Strategic approach and impact

We are committed to integrating environmental stewardship into the fabric of how we operate. Human health and the health of our environment are intertwined, which is why we prioritize taking action on climate change and implementing sustainable solutions in our facilities, in our products, and across our value chain. As the world seeks innovative solutions to tackle climate challenges and protect our natural capital, we recognize the incredible opportunity genomics and our technology provide.

KEY OBJECTIVES

- 1 Drive climate action across our value chain
- 2 Operate sustainable facilities
- 3 Develop sustainable products
- 4 Leverage genomics for sustainability applications

2023 HIGHLIGHTS

100%

renewable electricity*

53%

reduction in packaging (since 2019)

Carbon neutral

direct operations (Scope 1, 2)
beyond†‡ SBTi path

8%

decrease in water usage (YoY)

*Through onsite generation, purchased renewable electricity, and renewable energy credits.

†SBTi Beyond Value Chain Mitigation.

‡Through onsite generation, purchased renewable electricity, renewable energy credits, and Green-e certified nature-based carbon credits.

UN SDGs



NovaSeq™ X Series

NovaSeq™ 6000

Our path to a science-based net-zero by 2050

Climate change represents a threat to human health, the environment, and the global economy. As a science-based organization, we aim to ground our climate action in a science-based framework.

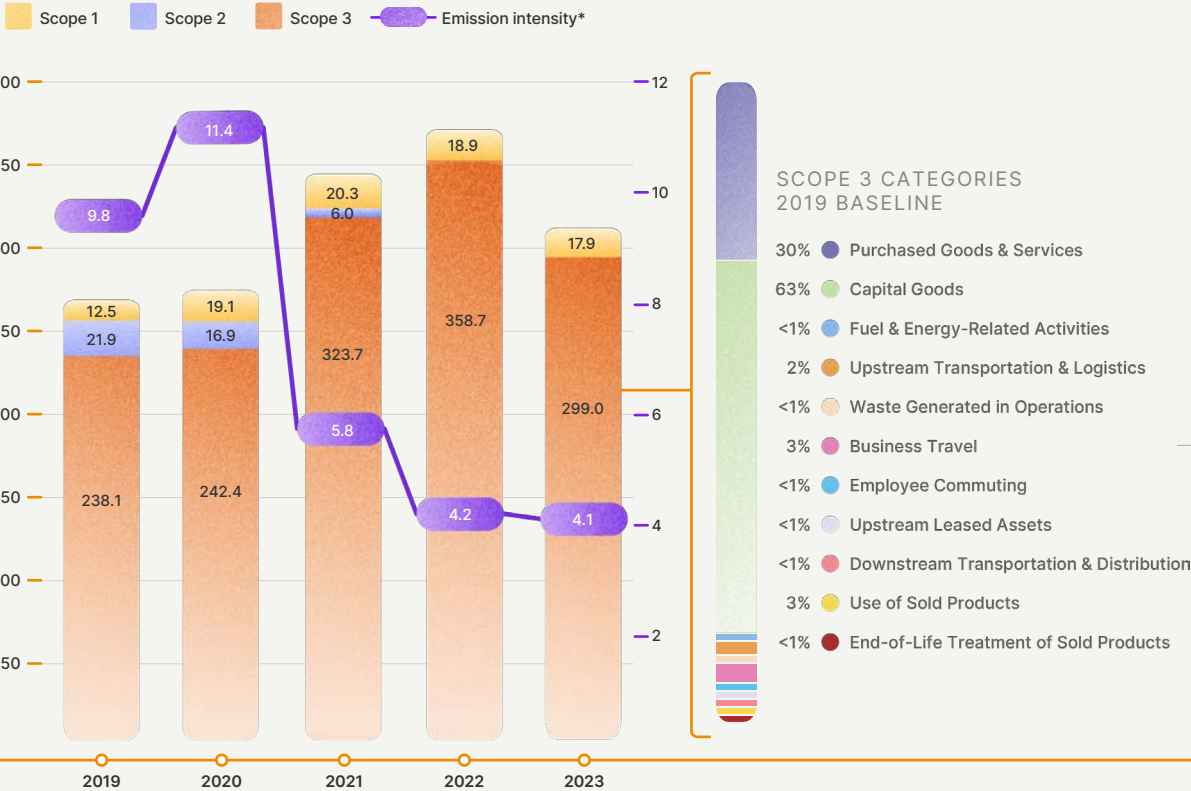
We were among the first companies in the world and the first genomic company to receive [verification](#) of our 2050 net-zero emissions targets by the Science Based Targets initiative (SBTi) [Corporate Net-Zero Standard](#). Our Scope 1, 2, and 3 emission targets are also externally [verified by SBTi](#) and aligned to the Paris Agreement's goal of keeping planetary warming to 1.5°C.

Managing climate risks and opportunities

To manage climate-related issues, we are incorporating climate resilience across our operations and value chain with a risk management structure, our EHS management system, business continuity program management, supply chain risk reviews, and periodic audits of related processes. As external conditions evolve, we will continue to evaluate our approach, recognizing that both physical risks, such as extreme weather, and transition risks, such as regulatory and technological developments, may affect our operations.

[Learn more about how we manage climate risks and opportunities in our TCFD Index.](#)

Illumina carbon footprint



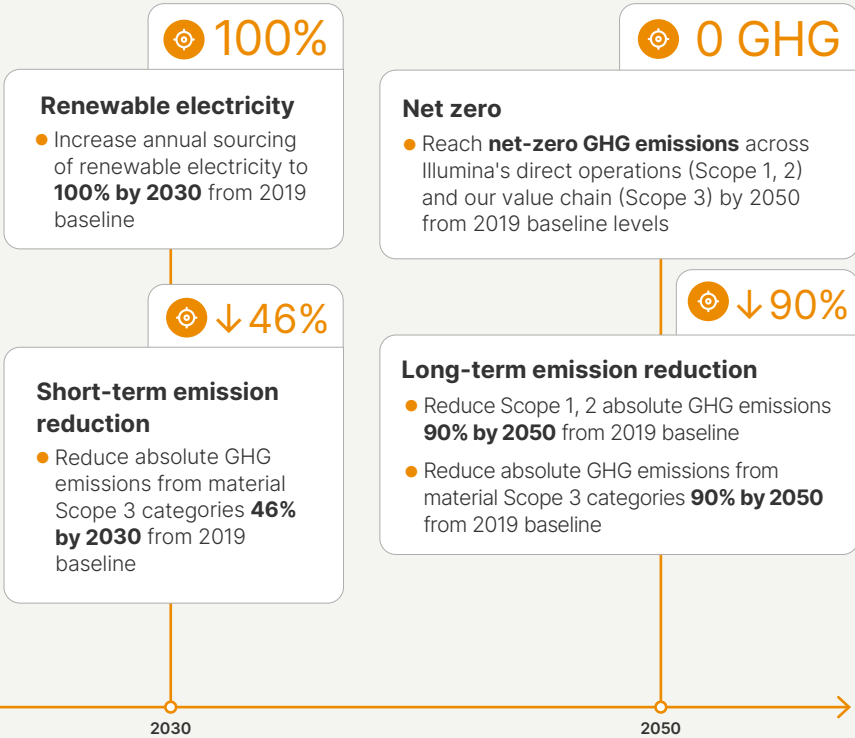
Scope 3 emissions

Based on our Scope 3 emission baseline assessment, more than **87% of our global emissions are attributable to our Scope 3 emissions**, making it imperative for us to manage our value chain and work with our suppliers on their decarbonization efforts. We assessed all 15 Scope 3 categories and identified the most material contributors. Categories that represented 7% or more were defined as material and accounted for 92% of our total Scope 3 footprint.

Our most material Scope 3 categories of focus include:

- Purchased goods and services (cat. 1)
- Capital goods (cat. 2)
- Upstream transportation and distribution (cat. 4)
- Business travel (cat. 6)
- Employee commuting (cat. 7)
- Investments (cat. 15)

SBTi-APPROVED TARGETS



SBTi net-zero mitigation hierarchy

Illumina follows the recommended mitigation hierarchy with our net-zero commitments. SBTi recommends science-based targets for the near and long term to address our value chain emissions and to implement strategies to achieve these targets as a first order of priority, and then to invest in mitigation outside the value chains. Under the recommendations of the SBTi Corporate Net-Zero Standard, companies should go beyond their near- and long-term science-based targets to further mitigate climate change by undertaking actions or making investments that generate additional co-benefits for people and nature. To further facilitate beyond value chain mitigation, Illumina has invested in nature-based Green-e certified carbon offsets while on our journey to net zero. We have applied carbon offsets for our natural gas Scope 1 as a temporary mitigation.

Net zero transition

As we work towards net zero, we're reducing emissions by incorporating on-site energy generation and purchasing renewable electricity, renewable energy credits, and Green-e certified nature-based carbon credits.

Driving climate action across our value chain

We recognize that our environmental footprint extends beyond our facility walls, and we engage in projects to further reduce emissions from our value chain.

Scope 3 management and reduction efforts

● **Sustainable upstream transportation and distribution**

We have a bold program of mode shift initiatives that will have measurable impact in 2024 and will significantly scale in 2025-2030. Our mode shift initiatives are focused on shifting our product movements to lower emission options, with our ocean freight program remaining as the largest contributor.

● **Ocean transportation** – In 2023, we qualified ocean transportation for our internal Singapore-to-US supply movements. In 2024 we will expand our routes and increase our volumes for ocean freight to include Singapore to East and West coast US ports.

● **Logistics Network Optimization** – In 2023, we increased our focus on network improvements, ensuring our products are handled and transported more efficiently. In 2024 and 2025, we will add significant digital transport management capability to enable accelerated progress in this area.

● **Sustainable investments** – We modified our investments policy to eliminate investing in energy and utilities sector bonds unless the associated issuance is identified as a Green, Social or Sustainability (GSS) bond. We were able to adjust our approach without any expected impact on our returns.

● **Sustainable business travel** – At Illumina, we enable employees to effectively avert travel for business meetings with a host of digital and virtual tools, reducing carbon emissions associated

with business travel. For our highest-traveled routes in 2023, we contracted with an airline in a rebate model that drives a percentage of our spend towards the purchase of sustainable aviation fuel in \$50k increments. We partner with an electric car consortium called SWOOP that allows for electric car transfers to and from our high-transfer routes of Chicago–Madison and San Diego–Los Angeles. Additionally, in 2023 we changed our primary preferred rental car provider, which has a higher % of rental cars that are electric than other providers.

● **Sustainable capital goods and purchased goods and services** – Through our CSR supplier program, we assess environmental sustainability commitments made by our suppliers. Our goal is to empower our suppliers to reduce their collective carbon footprint and encourage transparent reporting on their progress. In turn, this will help us to reduce our overall Scope 3 emissions. [Learn more about our CSR supplier program.](#)

● **Sustainable employee commuting** – We support employees with a variety of regional commuting options, including free electric vehicle charging, commuter shuttles, and subsidized vanpools.

● **Sustainable shipping** – The breakthrough NovaSeq X Series allows for ambient shipping and the elimination of cold-chain transportation. In 2023, 352 NovaSeq X Systems shipped. [Learn more about our approach to sustainable products.](#)

2023 EMEA OPERATIONS

In 2023, our EMEA operations team oversaw a successful transition to a localized cold-chain shipping system. Following a more than yearlong initiative to investigate and apply a localized approach, the team achieved:

14×
reduction in
CO2 emissions

Shortened
lead times for critical materials
from months to days

Reduced
warehousing and
labor expenses



Operate sustainable facilities

We approach reducing the environmental footprint of our facilities by focusing on green building design and optimizing our energy, water, and waste management.

2023 initiatives

As a data-driven organization, we track key metrics across our facilities that allow us to measure our sustainability performance and make changes. We consistently identify and adopt strategies to manage energy conservation, water usage, waste disposal, and the use of sustainable materials.

- **Green Buildings Scorecard Program** – This program evaluates all new builds and renovations against LEED criteria categories to assess energy, water, waste, and building efficiency considerations.
- **WEB (Water Efficiency Building) Award** – Our Singapore site completed a project that installed more than 80 control flow restrictors, water sensors, and water delay timer fittings to improve water efficiency, conserving an estimated 1 million gallons of water annually, earning a WEB award from the Public Utilities Board in Singapore in 2022.
- **Organic waste recycling** – Northern California, San Diego, and Madison sites have taken proactive steps to align with California Assembly Bill 1826, which requires businesses to recycle their organic waste. The sites have partnered with local waste haulers on a phased rollout that includes new containers for organics, standardized instructional labels, and change management education strategies.
- **Circular Economy Plastics Pilot** – Following a successful pilot of diverting consumables waste to be repurposed for other plastic applications, we are currently exploring internal processes for the collection of plastics and selecting a recycling partner for a global program.

Green building design

We integrate sustainable principles into the design, construction, and operation of our global real estate portfolio.

Green Building Design LEED Certified Sites



- San Diego, CA
- Singapore, SG
- Foster City, CA
- Shanghai, China

Our Singapore North Coast building earned LEED Gold. By engineering design with energy efficiency and sustainability in mind, Illumina Singapore has not only reduced its environmental impact, but has also enabled total energy saved of 736K kWh per year, resulting in \$126,000 yearly cost reduction. Best-in-class practices were achieved for infrastructure energy and water efficiency, management of recyclable waste, environmentally friendly construction materials, and indoor environmental quality.

GREENING OUR LABS



We have partnered with [My Green Lab®](#) to improve the sustainability of our laboratories around the world. In 2023, six of our labs continued the certification process by completing a baseline assessment to evaluate sustainable best practices. Participating labs will discuss and implement improvements for reassessment and certification next year.

Energy management

We regularly evaluate energy efficiency measures and renewable energy projects to reduce our operational carbon emissions. Each of our sites maintains a pipeline of energy projects to contribute to emission reduction.

- **HVAC upgrades and optimization** – Our Singapore site began reconfiguring building HVAC system fans to achieve a more balanced air distribution, eliminate energy transmission, and operate at a higher efficiency. These upgrades will result in an annual energy savings of 188,340 kWh. Singapore also initiated a project that will study building occupant activity HVAC trends to optimize schedules and operate more efficiently, ensuring consistent indoor air quality, and reducing the building's carbon footprint. These upgrades will result in an annual energy savings of 70,080 kWh.
- **LED lighting replacements** – Our Singapore site began replacing fluorescent lights in manufacturing spaces with more efficient LED lighting. The new LED lights emit less heat, have a longer lifespan, and are more energy efficient compared to fluorescent lights, saving approximately 109,697 kWh annually.
- **Occupancy optimization** – Our Europe facilities team has been focused on a number of scheduling updates and behavior change initiatives to power down equipment and reduce airflow to fume hoods in unoccupied spaces.
- **Building automation analytics** – Our San Diego site initiated a project that will assess building-level data, provide insights into energy and operational efficiency improvements, and identify building HVAC control and set point issues by leveraging advanced building automation analytics and reports.

2030 TARGET

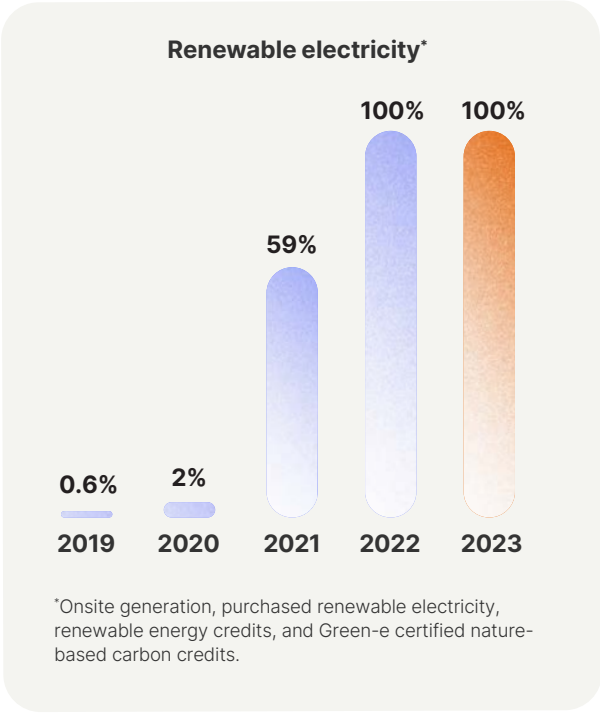
100%

renewable electricity achieved

2023 PROGRESS

100%

through onsite generation, purchased renewable electricity, and renewable energy credits



Water stewardship

At our core sites*, we employ a variety of water conservation applications. We assess our water usage by comparing the locations of our sites with the baseline water stress risk ranking according to the World Resources Institute and its [Aqueduct Water Risk Atlas](#). For facilities that have been identified as operating in water-stressed regions, we are committed to focusing additional efforts on water management planning.

WATER RISK ASSESSMENT BY SITE

- Extremely High
- High
- Medium-High
- Low-Medium
- Low

WATER RISK AT CORE SITE LOCATIONS

San Diego, CA

Foster City, CA

Singapore, SG

Madison, WI

Cambridge, UK

Hayward, CA

Steenoven, NL



Cooling Tower Optimization

In 2023, our Singapore facilities team launched an initiative to review and optimize the cooling towers to reduce overall water usage without compromising the efficiency of the system.

Following a complete analysis, including pH levels, conductivity, hardness, and corrosion levels, the team made key adjustments to optimize chemical dosing, reducing water wastage, and enhance overall system performance.

Additionally, the team identified opportunities to optimize the blow-down process, preventing unnecessary water loss while maintaining water quality.

The optimization effort resulted in a total water savings of 3,800,000 liters a year as well as a cost reduction.

3,800,000
liters

Water saved annually



Our San Diego locations continue to utilize reclaimed water for landscaping, water features, and our cooling towers.

2030 TARGET

10%

reduction in water intensity at core sites*

2023 PROGRESS

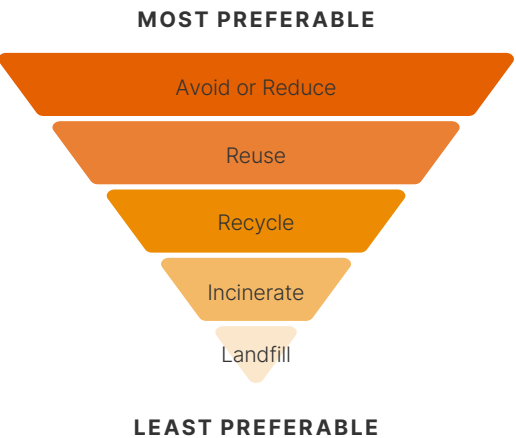
25%

increase in water intensity at core sites from baseline (2% increase YoY)



Waste management

We take a hierarchical approach to waste management, where source reduction is the most preferable option and landfill is the least preferable. We continue to prioritize innovative waste management efforts as part of our 2030 landfill diversion target.



Responsible electronic waste disposal

Through our waste management programs, we aim to reduce the environmental impact from electronic waste and ensure responsible management at end of life. We partner with e-Stewards, R2, and other certified recyclers to refurbish, rebuild, and reuse devices to help organizations around the world.

iRecycle – An employee-led program in our Asia Pacific, Middle East, and Africa (AMEA) region, iRecycle aims to minimize the environmental footprint associated with waste from the field service engineer teams. Previously, product parts that were not reparable by our service teams were disposed of in landfills. With the launch of the program, these parts were sorted and recycled in collaboration with key partners. In the past year, the program has expanded beyond its pilot phase in Australia to include service teams in Singapore, Japan, and South Korea. Mirroring the geographical expansion, the volume of spare parts being recycled has increased by 40% to 7000 kilograms in 2023.



Hazardous waste

Our hazardous waste management program is designed to minimize impact and manage materials in the most environmentally responsible manner. The process follows a hierarchy that specifies reclamation/reuse, recycling, waste-to-energy recovery, fuel blending, wastewater treatment, incineration, autoclave, and landfill when alternatives are not available.

Producer responsibility

We participate in required compliance schemes for producer responsibility to ensure proper collection, management, and disposal. This includes the recycling of packaging, batteries, and [waste electrical and electronic equipment \(WEEE\)](#). Under the European Union's Batteries and Accumulators Directive and Packaging Waste Directive and regulations in several EU member states, we comply with requirements to finance the collection and recycling of batteries and packaging supplied with our products at end of life.

2023 PROGRESS

56%

landfill diversion, a 5% improvement since 2019

2030 TARGET

90%

landfill diversion at all core sites*



*Core sites: San Diego (i3, HQ, Distribution Center), Foster City, Hayward, Madison, UK Illumina Centre, Netherlands, China, and Singapore.

Develop sustainable products

We integrate the Design for the Environment (DfE) approach into the core of our product development to find opportunities to shift to a circular economy, addressing the full life cycle of materials and their end of life. We apply environmental criteria to resource selection, design, energy use, data processing efficiency, size, weight, stability, packaging, shelf life, temperature requirements, end-of-life management, and more.

Our approach to developing sustainable products:

- Integrate DfE
- Optimize sequencing system power consumption and processing efficiency
- Reduce the amount of petroleum-based plastic in new product designs
- Replace the use of chemicals of concern wherever possible with greener alternatives
- Seek additional opportunities to engage in a circular economy

2023 PROGRESS

53%

reduction of packaging

2030 TARGET

75%

reduction of packaging from 2019 baseline

2023 PROGRESS

70%

of our secondary and tertiary packaging is recyclable, reusable, or compostable

2030 TARGET

90%

of our secondary and tertiary packaging will be recyclable, reusable, or compostable

1

2

3

4

5

6

In 2022, we engaged a third party to complete a streamlined life cycle assessment* of the NovaSeq X 10B 300 cycle kit compared to the NovaSeq 6000 S4 300 cycle kit and used the functional unit of a per gigabase (Gb) of genetic code. Our findings demonstrated a 61% reduction in climate change impact† with the NovaSeq X kit. Armed with data on the holistic impact, we will use the information to address new opportunities in future design for environment applications and sustainability product enhancements.

Emissions per gigabase (Gb)	NovaSeq™ 6000	NovaSeq™ X
	0.09 kg CO2 e	0.04 kg CO2 e

1

Sustainable end of life – We develop innovations that serve our customers long into the future and include design planning to incorporate end-of-life of our products.

2

Sustainable resources – We are committed to sourcing sustainable materials, including reducing the amount of petroleum-based plastic in new product designs. We also actively work to replace the use of chemicals of concern with greener alternatives.

3

Sustainable production – Through our sustainable facilities, we aim to make the manufacturing process less energy intensive, minimize the use of toxic materials, and recycle waste from the production process where possible.

4

Sustainable logistics – We work to make the transportation of our products more efficient and sustainable.

5

Sustainable packaging – We invest in making our packaging recyclable, returnable, and reusable.

Returnable insulated containers: Insulated containers used for refrigerated and frozen in vitro diagnostic (IVD) product shipments can be returned to us for reuse.

- We launched a container reuse program where returned containers are inspected, sterilized, reworked, and used again
- At full implementation, these containers reduce 1.43 metric tons of CO2 emission each month

Recyclable insulated containers: Moving to plant-based paper-insulated containers has resulted in a 100% curbside recyclable solution.*

- 100% curbside recyclable and compostable containers use standard paper recycling streams
- The insulated containers for frozen and refrigerated shipping are made with plant-based renewable materials, which requires less energy
- This solution diverts 250,000 cubic feet of material from landfills per 100,000 containers

Reusable bulk sustainable solutions: Insulated pallet shippers for frozen and refrigerated products are validated for multiple uses and returnable for refurbishment and reuse. This supports the internal movement network and customer bulk orders.

- Supplier return facilities inspect and refurbish for return shipment to Illumina
- Pallets are modular and break down flat for easy return of multiple units via land or ocean

6

Sustainable use – When designing our innovations, we aim to create products that are both more powerful and more energy efficient.

*100% recyclable in the US and widely recyclable globally.

†Based on end market assessment NY, US

‡The project aligned with the methodological requirements and guidelines of the ISO standards ISO 14040 (2006a) and ISO 14044 (2006b) on LCA and the GHG Protocol Product Life Cycle Accounting and Report Standard (WRI/WBCSD, 2011). However, as it is a streamlined LCA study, it does not fulfill all of the reporting requirements of these standards.

Leveraging genomics for sustainability applications

The positive power of genomics is helping to identify, measure, and solve some of the planet’s most challenging and pressing sustainability issues. Our customers are leveraging the power of genomics for studies on biodiversity, endangered species protection, ecosystem conservation, sustainable agricultural practices, and climate change research.



Natural capital and biodiversity

As part of our approach to sustainable and responsible business

operations, we take a holistic look at natural capital and diversity and have reviewed potential risks and opportunities beyond our climate footprint. We have also reviewed the links between our potential direct impacts and dependencies on natural capital, using the Taskforce on Nature-related Financial Disclosures and the Kunming-Montreal Global Biodiversity Framework. As the intersection between biodiversity, natural capital, and the economy becomes more defined, we recognize the opportunities for the application of genomics and Illumina sequencing to protect and innovate in future nature-positive economies. [Learn more about how we manage climate risk.](#)

Agrigenomics

Agricultural genomics, or [agrigenomics](#), is driving sustainable productivity and offers solutions to the mounting challenges of feeding a growing global population. Using modern technology, farmers, breeders, and researchers can easily identify the genetic markers linked to desirable traits, informing cultivation and breeding decisions.

Dedicated to making tangible contributions



Launched in 2011 and awarded annually, the [Illumina Agricultural Greater Good Initiative](#) grant spurs critically needed research that will increase the sustainability, productivity, and nutritional density of agriculturally important crop and livestock species. Grantees receive donations of Illumina products to support their projects.

Previous recipients



SENAI Innovation Institute for Biosynthetics, based in Rio de Janeiro, Brazil, focuses on seaweed cultivation to explore the genetic potential for carbon sequestration and environmental services, and food security. [Learn more](#)



The International Institute of Tropical Agriculture (IITA) focuses on developing genomic resources for yams, a significant agricultural crop and a rich source of nutrition. The IITA aims to conduct WGS of guinea yams from Nigeria and Benin to investigate their evolutionary development and to tap into specific genes for optimizing hybrids in the breeding program. [Learn more](#)



Dr. Bertram Brenig, from the University of Goettingen, Institute of Veterinary Medicine, leverages genomics to help understand vulnerabilities impacting the Western honey bee, one of the most populous pollinators facing multiple challenges and population decline. [Learn more](#)



Breeding better sugar with genomics

Scientist Jorge Da Silva, PhD, at Texas A&M University is using genomics to produce sugarcane that is sweeter; higher yield; more resistant to cold, pests, and drought; and more carbon neutral. Da Silva’s research comparing leaf chlorophyll content, leaf temperature, and relative water content in several different sugarcane genotypes subjected to a 90-day drought cycle has generated a wealth of data about which genes are actually being expressed and controlling these traits. Genetic samples, or germplasm, from these crops have already been shared with the [International Society of Sugar Cane Technologies](#), and the US government recently awarded Da Silva’s program a grant to turn their attention to “energy cane”—sugarcane grown specifically to produce bioethanol. [Read the full story](#)

The newest and most advanced Illumina sequencing systems, NovaSeq X and NovaSeq X Plus, use a biopolymer derived from sugarcane in their reagent kit cartridges, which can be recycled after use.

Conservation genomics

Conservation genomics focuses on characterizing the genetic diversity of endangered species and applying molecular tools like Illumina sequencing to support sustainable management of threatened species and populations.

iConserve initiatives

The Illumina iConserve program seeks to bring the community together to accelerate wildlife conservation.



[How genomics will support gorilla conservation](#)



[Sequencing to save the lemurs](#)



[Bottlenose dolphin genome made available to researchers](#)



[A new genomic atlas could help save endangered elephants](#)

Biodiversity and eDNA sequencing

Environmental DNA sequencing is a rapidly emerging method for studying biodiversity and monitoring ecosystem changes. As organisms shed DNA into their environments, eDNA analysis can provide clues about the species present without disrupting the ecosystem. Potential applications of eDNA include port monitoring, biodiversity surveys, ballast water testing, soil testing, and more. Scientists are utilizing our technology and eDNA to gain insights to develop innovative environmental solutions.

Turning sport sailors into field scientists

New Zealand’s Cawthron Institute, led by Xavier Pochon, specializes in science that supports the environment and sustainable development. Pochon’s team monitors natural ecosystems using DNA metabarcoding, which inspects an environmental sample for both microbes and cells shed by larger organisms, whether those species are previously known or novel. And when it comes to marine biodiversity, Pochon saw a pressing need for more data.

Traditional oceanographic research methods require direct visual observation or even physical capture of the species involved, which is slow, expensive, and can be harmful to marine life.

Pochon came up with the idea to equip sport sailing vessels with user-friendly tools and a simple procedure for taking seawater samples at key points along their route—a faster, more reliable, and harmless way to track endangered species, monitor pathogens and, over time, show how climate change is shifting species’ geographic range.

With support from Illumina, Sequench, and Smith-Root, Cawthron Institute’s molecular surveillance team was able to extract 4.7 million DNA sequences identifying 11,000 species—all in less than two weeks.

[Learn more](#)



The iConserve koala retrovirus sequencing project

Illumina and the San Diego Zoo’s koala sequencing project will represent the largest pedigree of any koala genomic database to date.

In 2021, the Australian Centre for Wildlife Genomics at the Australian Museum, hosted the Second Koala Retrovirus (KoRV) Workshop to facilitate multidisciplinary discussions about KoRV and koala management.

One of that workshop’s ultimate recommendations recognized a need for longitudinal studies, across multiple generations, to investigate the genetic causation of these health conditions.

In 2023, the workshop hosts, the Illumina iConserve program, and the San Diego Zoo engaged to begin just such a study. The San Diego Zoo preserves genetic samples of most koalas in their care, including many from former generations dating all the way back to the current population’s founders in the 1970s—and Illumina performed whole-genome sequencing on all of them. This data, spanning five generations, was uniquely valuable. [Learn more](#)

Impact in action



Illumina employees celebrate coastal cleanup day

Over 100 employees globally, in Singapore, Europe, and across the Americas, volunteered to remove trash and protect our waterways from pollution in celebration of International Coastal Cleanup Day.

51% diverted from landfill with red tag program

The Illumina operational excellence team, in collaboration with the Madison Green Team employee resource group, created the Red Tag program, a pivotal surplus management initiative. By efficiently tagging surplus items that are no longer needed and making them available to all of Illumina, the Red tag program improves our efforts to become a more circular business, as well as improve our bottom line.

In 2023, the Red Tag program in our Madison location was able to divert 51% of materials—ranging from equipment to lab consumables—from the landfill. Of this, 27% of the inventory was returned to service in other lab spaces, while 24% was donated to a nonprofit partner that provides lab space and equipment for biotech startups.

These results were achieved primarily through local redeployments. Today, Red Tag is integrated with Illumina’s internal continuous improvement platform—ilimprove. This integration enables global equipment redeployment, further advancing our waste diversion efforts.



Future of sustainable mining belongs to the microbe

Our relationship with the microcosmos is undergoing a paradigm shift as great as when we first discovered it in the 17th century. We spent 300 years believing microbes were either ubiquitous but harmless stowaways or disease agents to be eradicated at all costs. Now we’re finally starting to explore the ways these tiny-but-mighty creatures could help us tackle some of our biggest challenges. [Learn more](#)



SANDAG annual iCommute diamond awards

For the sixth consecutive year, Illumina was awarded the iCommute Diamond Award for Excellence in Commute Programs from the San Diego Association of Governments (SANDAG). SANDAG’s annual iCommute Diamond Awards recognizes San Diego-area employers who have made strides to promote alternative commute choices in the workplace.

A lesser-known application of genomics: Reducing cow burp intensity

Methane is 28 times more powerful a greenhouse gas than carbon dioxide: It’s responsible for a third of global warming. A single cow can produce up to 500 liters of methane a day, or 160 kilograms per year, mostly

through eructation (that is, belching). Multiply that by the planet’s 1.4 billion cattle, and it might be a burp, not a butterfly wing, that causes a hurricane on the other side of the world.

Genomic sequencing has enabled dairy farmers to make breeding decisions much faster, with greater accuracy, based on genomic breeding values. No longer do they have to wait to see how productive, fertile, or hardy a bull’s progeny are before they decide whether to use that bull for further breeding: These genomic breeding values can be calculated for animals as soon as they’re born. This reduces the time between generations and, according to one estimate, saves bull breeding companies up to 92% of their costs.

[Learn more](#)



Marine conservation and sequencing at sea

In 2022, Illumina and the Minderoo Foundation announced a three-year, \$28 million partnership to improve surveillance of marine ecosystems using the power of high-throughput sequencing with Illumina technology. [Watch the latest update.](#)



Operate
responsibly

Strategic approach and impact

We are committed to conducting ourselves with honesty, integrity, and respect for all. Our role as a genomics pioneer brings with it the responsibility to enable innovation for good, ensuring that the technology we create and the data we collect are used safely, ethically, and responsibly. Doing the right thing is core to who we are, what we do, and how we do it. We honor the trust placed in us by patients, customers, employees, shareholders, and communities.

KEY OBJECTIVES

- 1 Practice strong corporate governance and compliance
- 2 Act ethically and with integrity
- 3 Uphold high standards for data security and privacy
- 4 Foster a responsible supply chain
- 5 Advance product quality and safety

2023 HIGHLIGHTS

3

board members are women

100%

of Illumina core facilities* participated in third-party audit programs

\$94.1 million

in diverse supplier spend (US)

97%

employees trained on our code of conduct

UN SDGS



*Core sites: San Diego (i3, HQ, Distribution Center), Foster City, Hayward, Madison, UK Illumina Centre, Netherlands, China, and Singapore Woodlands.

Practice strong corporate governance

By exercising strong corporate governance, we aim to inspire confidence in the work we do and in our company’s future.

Board of directors

Our [Board of Directors](#) is a diverse group of leaders who champion scientific innovation. The Board’s aim is to ensure the company is equipped with the tools it needs to accelerate the power of genomics. The Board has adopted [Corporate Governance Guidelines](#) that are founded on a commitment to building shareholder value, with an emphasis on responsible governance. These guidelines, together with the [Code of Conduct](#) and [Board Committee Charters](#), provide the framework for corporate governance at Illumina.

GOVERNANCE HIGHLIGHTS

- Independent Board chair
- All directors other than the CEO are independent
- 75% of standing committees are chaired by women
- Six director changes, two departures, and four additions
- New CEO selected

Diverse and independent board

As stipulated in our Corporate Governance Guidelines, our company seeks to achieve a mix of Board members that represents a diversity of background and experience, including with respect to age, gender, international background, race, and specialized experience. The guidelines also require that independent directors constitute at least a majority of the Board. In order to be independent directors of the company, directors must meet the criteria for director independence established by the Nasdaq Stock Market.

Our Board has established four standing committees. Learn more in each committee charter:

- [Audit Committee](#)
- [Compensation Committee](#)
- [Nominating/Corporate Governance Committee](#)
- [Science and Technology Committee](#)

Board CSR/ESG governance

The full Board provides CSR oversight, and in 2022 we expanded the remit of the Nominating/Corporate Governance Committee to assist the Board in overseeing the company’s material CSR matters, except as specifically delegated to another Board committee. The Compensation Committee continues to oversee and provide input to management on diversity and inclusion matters, and the Audit Committee continues to oversee cybersecurity.

[Learn more in Governance](#)

More details about the Board can be found in our [Proxy](#) and on our [corporate website](#).

BOARD OF DIRECTORS



Frances Arnold, PhD
Professor of Chemical Engineering,
Bioengineering & Biochemistry at
Caltech; Nobel Laureate



Caroline Dorsa
Former EVP & CFO,
Public Service
Enterprise Group



Robert S. Epstein, MD
Former President & Chief
R&D Officer, Medco-UBC



Scott Gottlieb, MD
Former Commissioner,
US FDA



Gary S. Guthart, PhD
President & CEO,
Intuitive Surgical



Philip Schiller
Former Apple Fellow,
Apple



Sue Siegel
Former Chief Innovation
Officer & CEO, GE Ventures

FOUR NEW DIRECTORS ADDED IN 2023



Stephen MacMillan
Chair of the Board, Illumina;
President and CEO, Hologic



Jacob Thaysen, PhD
CEO, Illumina



Andrew Teno
Portfolio Manager,
Icahn Capital



Scott Ullem
CFO, Edwards
Lifesciences

4

year average tenure

3

female directors

91%

independent

Compliance

At Illumina, our Code of Conduct and associated anti-bribery compliance policies and procedures are intended to promote honest and ethical conduct, compliance with applicable laws, and protection of our business interests. Our Anti-Bribery Compliance Program (“Compliance Program”) is built on the eight elements of an effective compliance program as recognized by the Office of Inspector General (OIG) of the US Department of Health and Human Services and the Serious Fraud Office (SFO) of the UK. The Program provides a comprehensive framework to detect and prevent violations of law and company policy.

The fundamental tenets of our Compliance Program are detailed below. Our Program has been structured to meet the needs of Illumina’s unique position in the industry and address the risks our company faces.

1. Compliance policies and procedures

Our Code of Conduct applies to all Illumina Board members, employees, officers, contractors, distributors, and other business partners, and is intended to provide personnel with a blueprint for meeting Illumina’s high ethical standards and applicable law. Illumina also has a set of associated anti-bribery and anti-kickback compliance policies and procedures to help us all operate in accordance with relevant laws, industry codes, and our own standards.

2. Compliance program governance

The Illumina chief compliance officer and Global Compliance Committee are responsible for the oversight of Illumina’s Compliance Program. The Global Compliance Committee comprises a cross-functional group of senior-level executives at Illumina, and our chief compliance officer serves as the committee chair. Together, this team of executives monitors the effectiveness of Illumina’s Compliance Program and drives any necessary Program enhancements to management and relevant personnel.

3. Training and education

Illumina is committed to ensuring that all our stakeholders have a clear understanding of the laws, policies, and industry codes that apply to our interactions with the health care community, governmental bodies, patients, and the public at large. We provide employees with training and educational content in a variety of formats and in multiple languages, which reflects the diverse scope and nature of our business and employees. Our training program and methodology are regularly reviewed and revised as needed to address new and emerging risk areas.



TRAINING

100% of employees* are assigned training annually

97% completed the web-based training and certified they have read and understand the code in 2023

*Including FTEs, contractors, consultants, and interns

4. Reporting concerns

Everyone at Illumina has an affirmative obligation to report any suspected violations of applicable law or any of our compliance policies. We encourage everyone to raise concerns to their managers, Human Resources, or the Compliance department directly. There are several resources available to make reports, including our [Compliance and Fraud Prevention Hotline](#), where reports can be made anonymously (where permitted by law) 24 hours a day, seven days a week. Our Code of Conduct strictly prohibits any form of retaliation for anyone who makes a good-faith report of a potential violation of law or our policies.

5. Internal monitoring and auditing

Illumina monitors the effectiveness of our Compliance Program through the development and implementation of a monitoring and auditing plan carried out every year. The extent and nature of the policies and interactions subject to this review vary from year to year based on Illumina’s risks and any changes in the regulatory landscape.

6. Response to compliance violations

Illumina takes all violations of our compliance policies seriously and we are committed to taking corrective action when needed. Violations reported internally and through the third-party hotline, as well as those that are discovered through our monitoring and auditing efforts, are promptly investigated and remediated as appropriate. Moreover, violations inform our annual monitoring plan and any enhancements that may be required to our educational content and policies.

7. Disciplinary guidelines

Illumina requires adherence to our Code of Conduct for continued employment or affiliation with our company. We address discipline for policy violations consistently without regard to a stakeholder’s level, function, influence, or perceived value to the company. Our documented disciplinary guidelines are clearly communicated and made readily available to all employees.

8. Assessing risk

The effectiveness of Illumina’s Compliance Program is regularly assessed internally by our compliance personnel using a variety of tools to uncover process gaps and make modifications to respond to business changes and any shifts in the regulatory landscape governing our business. We regularly communicate with all our stakeholders, including executives, employees, distributors, and contractors, to ensure our Program is modified, where necessary, to address Illumina’s major risk areas.



KEY POLICIES

- [Code of Conduct](#)
- [Compliance Program Framework](#)
- [Anti-Bribery and Anti-Corruption](#)
- [Anti-Competitive Behavior](#)
- [Interactions With Healthcare Professionals and Organizations](#)
- [Compliance Information](#)
- [Ethics Information](#)
- [Ethics Advisory Board Charter](#)
- [Ethics Advisory Board Members](#)

Risk management

Illumina has adopted a company-wide approach to assess and manage risks. We endeavor to ensure that all employees adhere to our ethics and compliance protocols. Our enterprise risk management (ERM) framework has been established to anticipate, assess, monitor, manage, and report on risks that could impede our business and identify emerging issues and opportunities.

We have implemented a corporate global business continuity planning (BCP) program to reduce risk exposure and mitigate negative events to business operations. The ISO 22301:2019 standard is used as a business continuity framework for this program. Additionally, the Internal Audit Department independently and objectively assesses risk and reports insights to the Audit Committee of the Board of Directors quarterly.

Our risk assessments consider various quantitative and qualitative inputs, including:

- 

Business and finance
- 

Product quality
- 

Operational
- 

Employee
- 

Legal and regulatory
- 

Environmental, health, and safety
- 

Brand and reputation
- 

Climate (physical and transition)

[Learn more about our risk factors in our 10K.](#)

Climate resilience

At Illumina, we believe addressing climate change is one of the key avenues to achieving a sustainable, just, and resilient future for all. We are committed to climate action and the integration of climate resilience planning into our risk management program. See the [Integrate sustainability](#) chapter for additional information and the [Appendix](#) for additional details on our Task Force on Climate-related Financial Disclosures (TCFD) index.



Business ethics and integrity

We are committed to reflecting the very best of our people, practices, and purpose. Integrity and fairness are central to our values and how we operate in the workplace and the marketplace.

Ethics advisory board

We seek guidance from our Ethics Advisory Board on a range of ethical issues, including recommendations on emerging technologies, policies, and regulations that are relevant to the genomic industry. We meet with the Ethics Advisory Board quarterly; their work includes providing strategic advice to Illumina about:

- Emerging policies and regulations relevant to the genomic industry and the company's interests
- Ethical issues arising from specific technology or products



Clement Adebamowo,
BM, ChB, ScD,
FWACS, FACS



Leslie Biesecker, MD



Glenn Cohen, JD



Freda Lewis-Hall,
MD, DFAPA, MFPM



Nita Farahany,
JD, PhD



Charmaine Royal,
MS, PhD

Ethical use of genomic technologies

Illumina is steadfast in our commitment that genomic technologies should be used to benefit humanity. Our Human Rights Policy and customer agreements outline our expectations regarding ethical business conduct, the use of our technology, and the steps we can take in the event of a possible violation. We have expanded and enhanced our oversight and accountability processes to monitor and enforce these commitments and seek to prevent sales that could result in misuse or human rights concerns before they happen. Illumina is committed to investigating potential reports of product misuse and will not hesitate to cease sales to business partners in the event of a confirmed ethics or human rights violation.

KEY INITIATIVES

- Ethics Advisory Board
- Human Rights Oversight and Accountability Framework
- Human Rights Impact Assessment
- Supply Chain Human Rights Assessment
- Illumina Connected Analytics Impact Assessments (includes ethical AI, privacy, and human rights analysis)
- Generative Artificial Intelligence Committee
- International Genomic Data Sharing by Health Technologies Industries: Points to Consider Committee

Ethical artificial intelligence principles

Illumina is dedicated to improving human health by unlocking the power of the genome. Our mission drives everything we do, including the technology we develop. Illumina creates and uses artificial intelligence (AI) systems to power industry-leading sequencing quality, fuel data insights, improve understanding of genomic variation in relation to health and disease, and advance genomic science. We define AI systems to include machine learning, deep learning, and predictive modeling. Illumina is committed to developing and using AI according to applicable laws and the following guiding principles:

- Transparency
- Diversity, nondiscrimination, and fairness
- Values-driven design
- Accountability

LEARN MORE

[Ethical Artificial Intelligence Principles](#)

Ethical marketing

The claims we make about our products must be truthful and accurate. All information we provide to our customers about our products, including those that are involved in providing health care services, must be consistent with the applicable label and consistent with local legal and regulatory requirements.

OUR RESPONSIBILITIES

- Represent our products and services fairly, truthfully, and accurately, and promote them only for their approved uses
- Do not create, by statement or omission, any misleading impressions in any advertising, marketing, or sales materials, or in any presentations
- Do not overstate the efficacy of our products, downplay or minimize the risks associated with our products, or make false or illegal claims about or comparisons to the products or services of a competitor
- All advertising and promotional materials must adhere to our Advertising and Promotional Materials guidelines and policies
- Do not use messages or marketing materials that have not been properly reviewed and approved following company policy and procedure

Upholding human rights for all stakeholders

We are committed to respecting human rights and treating every stakeholder with dignity and respect.

Recognizing that only governments have the authority to become a party to and to be bound by international agreements, Illumina respects the fundamental principles contained in the International Bill of Rights (that is, the United Nations Universal Declaration of Human Rights, International Covenant on Civil and Political Rights, and International Covenant on Economic, Social and Cultural Rights), the International Labour Organization’s Declaration on Fundamental Principles and Rights at Work, and the United Nations Guiding Principles on Business and Human Rights. As a member of the United Nations Global Compact, Illumina is committed to integrating these principles into our strategy, our culture, our operations, and our relationships with business partners.

KEY PLEDGES OF OUR HUMAN RIGHTS POLICY

- Ethical business conduct
- Protection of privacy
- Supplier Code of Conduct
- Safe workplace
- Right to exercise freedom of association
- Elimination of child labor, forced labor, and human trafficking
- Equal opportunity and non-discrimination
- Fair wages and working hours

[Read the full Human Rights Policy.](#)



KEY POLICIES

[Human Rights Policy](#)

[Conflict-Free Minerals Policy](#)

[Illumina’s Modern Slavery Statement 2023](#)

Human rights impact assessment

In 2022, we completed our first human rights impact assessment in alignment with the UN Guiding Principles. To do this we evaluated internal policies and external disclosures and worked to map actual and potential salient human rights impacts. We then built on this evaluation to identify the salient human rights impacts of Illumina, current practices for protecting and promoting these rights, and ways in which Illumina can continue to build on its human rights practices.

We reviewed the International Bill of Human Rights, the International Labour Organization’s Declaration on Fundamental Principles and Rights at Work, and the United Nations Guiding Principles on Business and Human Rights.

We identified four salient human rights impacts:

- Right to equality and non-discrimination
- Right to privacy
- Right of everyone to the highest attainable standard of health and to enjoy the benefits of scientific progress and its applications
- Right to freedom from forced labor and modern slavery

In 2023, we continued to engage with internal stakeholders across Illumina’s departments to understand how Illumina impacts these salient human rights and to identify opportunities for growth relevant to each area. We expanded our current practices to protect and promote the right to freedom from forced labor and modern slavery by engaging with a third party to help us initiate human rights due diligence of our supply chain. This due diligence helped us to identify higher-risk areas of our supply chain and opportunities for Illumina to engage with suppliers to remediate human rights risks. Illumina is committed to working directly with higher-risk suppliers to remediate their identified human rights risks.

We will continue to work across the business to continuously improve and support existing efforts.



Public policy

Proactive engagement with public policy stakeholders enables the sharing of accurate and reliable information about genomics and advocacy for policies that ensure and promote broad access. Illumina participates in the political and public policy process with governments and organizations around the world to engage and educate policymakers and key stakeholders on issues that impact our mission and business.

Our interactions with policymakers must align with our core values, ethical responsibilities, and legal obligations. The Illumina Nominating/Corporate Governance Committee of our Board of Directors oversees our political policies and contribution practices. The committee maintains responsibility for ensuring all Illumina political activities promote ethical and transparent engagement, advance the company's mission, and comply with applicable laws and reporting requirements. On an annual basis, we provide an update on our public policy priorities, political contributions, lobbying expenditures, and information about significant memberships. Our Global Government Affairs team is responsible for advocacy activities. Illumina does not have a political action committee but does retain outside strategic advisors who support our global engagement with policymakers and key stakeholders. These advisors may also provide expertise on policy and specific regional issues.

Illumina complies with all applicable laws and requirements in connection with our global political and public policy activities. These laws generally require reporting on lobbying activities and compliance with applicable gift laws.

Reports filed on behalf of Illumina are publicly available in the following government-hosted databases:

[Office of the Clerk, US House of Representatives](#)

[Secretary of the Senate, US Senate](#)

[Lobbying Disclosure, California Secretary of State](#)

[Transparency Register, European Commission](#)

[Texas Ethics Commission](#)

Advocating for public policies that ensure and enable broad access to genomic technologies is a priority. In 2023, we focused engagement with public policy stakeholders around:

- Advancement of precision medicine
- Adoption and reimbursement for genetic testing
- Adoption and reimbursement for noninvasive prenatal testing
- Adoption and funding for genomic infectious disease surveillance
- Promoting STEM opportunities

Trade associations and memberships

Illumina participates in various trade associations for collaboration and the exchange of ideas. We pay annual dues to a number of trade and industry associations, some of which use a portion of their membership dues for nondeductible state and federal lobbying and political expenditures. We disclose memberships in trade associations for which we contributed over \$5000 in the immediately preceding year, as well as the total amount of such dues.

For trade association payments in excess of \$50,000, we also disclose the portion of payments that are nondeductible under Section 162(e) (1)(B) of the Internal Revenue Code, such as payments to organizations designated as 501(c)(4) and 501(c)(6).



LEARN MORE

[Corporate Political Contribution Policy](#)

[Political Contributions Spend Report, Trade Association and Significant Membership Report](#)



Data privacy and cybersecurity

As we expand access to genomics around the world, we must also respect and properly secure data privacy.

Genomics data is powering positive progress around the world. We are committed to developing, upholding, and promoting high standards for genomic data privacy. We develop, implement, and review privacy-related policies, practices, and contractual language and ensure the integration of privacy as a priority throughout the company. Our Privacy Policy defines the way we use, maintain, protect, disclose, and transfer personal information.

LEARN MORE

[Privacy Policy](#)

[Privacy Principles](#)

[Privacy Transparency Report](#)

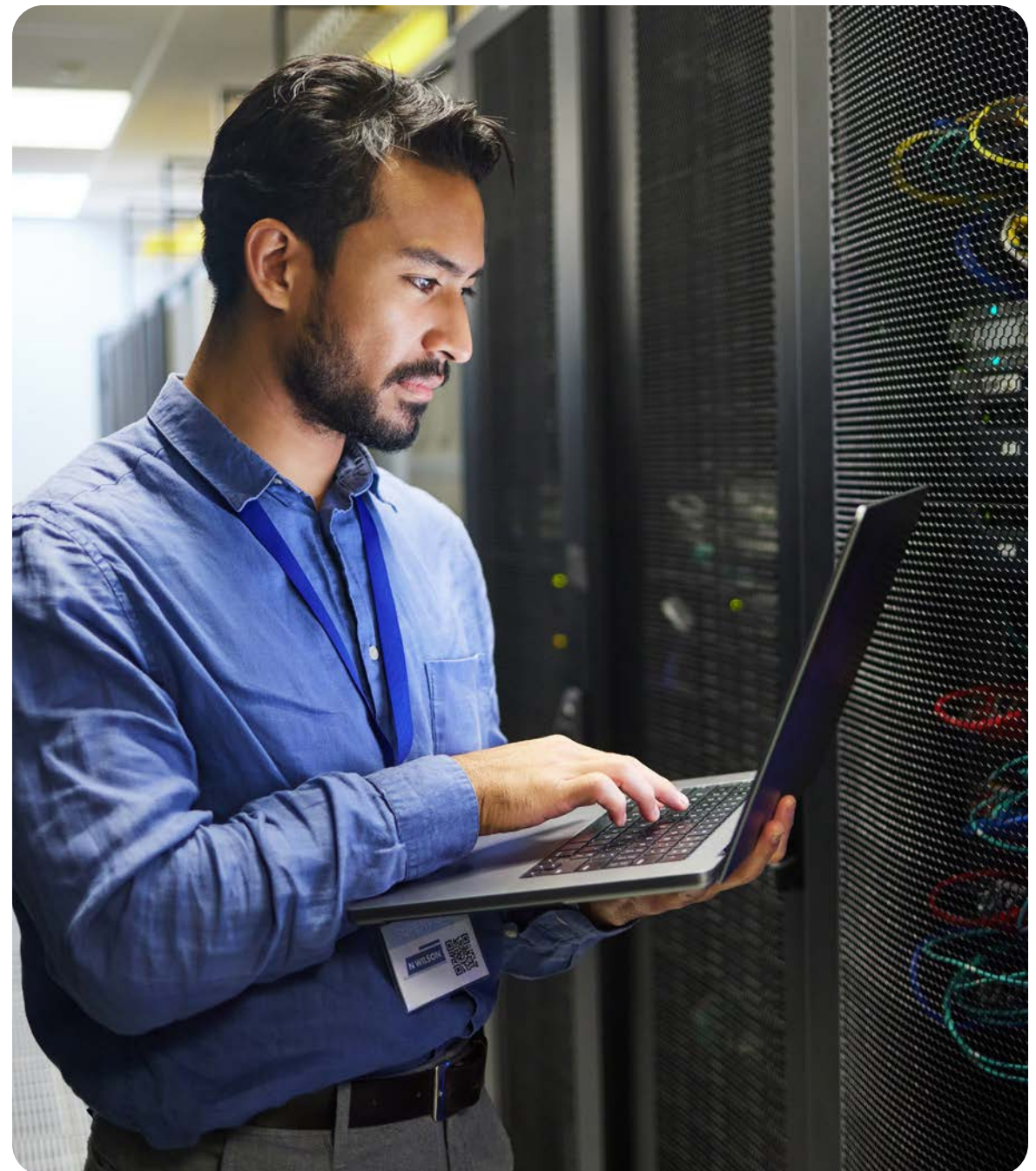
Our privacy principles

We believe that responsible data stewardship, built on a foundation of strong privacy and data security protections, is essential to promote trust and support innovation. Illumina is committed to handling personal data according to applicable laws and the following guiding principles:

- Transparency
- Responsible stewardship
- Ethical use
- Accountability

Key initiatives in 2023

- Led an Industry Core Group to produce the International Genomic Data Sharing by Health Technologies Industries: Points to Consider and presented the work product to the Global Alliance for Genomics and Health (GA4GH) plenary committee
- Completed the EU-US and Swiss-U.S. Data Privacy Framework (DPF) Self-Certification
- [Expanded the scope](#) of products within our cloud bioinformatics portfolio for the 2024 ISO 27701 privacy certification
- Enrolled in the MedTech Europe Data Protection Committee



Cybersecurity framework

Our technologies and services inherently involve handling large amounts of genomic and health data that must be protected, making cybersecurity integral to achieving our company’s mission.

LEARN MORE

[Illumina Data Security and Privacy Statement](#)

KEY REFERENCES

- NIST Cybersecurity Framework
- ISO 27001
- ISO 13485
- General Data Protection Regulation (GDPR)
- California Consumer Privacy Act (CCPA)
- Health Insurance Portability and Accountability Act (HIPAA)
- Clinical Laboratory Improvement Amendments (CLIA)



CYBERSECURITY EDUCATION MONTH

Each October, we recognize Cybersecurity Education Month, which heightens awareness of cybersecurity events, threats, attacks, and best practices that all employees can follow to help keep Illumina and its data safe from cyber threats.

There was an **8%** increase in total participation and an **11%** increase in unique participants compared to last year.

The five pillars of our cybersecurity initiatives

1

Program governance

- Led by chief information security officer (CISO)
- Board of Directors’ Audit Committee receives quarterly cybersecurity updates
- Annual assessment against National Institute of Standards and Technology (NIST) Cybersecurity Framework*
- Employees and contractors trained annually
- Third-party work requires cybersecurity risk assessment prior to engagement

2

Partnerships

- Healthcare Information Sharing and Analysis Center (H-ISAC)
- Domestic Security Alliance Council (DSAC)
- Information 2 Systems Security Association International (ISSA)
- Society for Information Management San Diego (SIM)
- Chief Information Security Officer Roundtable
- InfraGard

3

Secure product design and placement

- Led by chief product security officer (CPSO)
- Driving products towards secure by design and secure in deployment states
- Implementing risk mitigations as part of product design and development process
- Cloud-based products aligned with ISO 27001 (security) and ISO 27701 (privacy) certifications
- Privacy by design and by default initiative
- Programs for hardening Illumina software products to comply with industry security practices

4

Risk analysis and security testing

- Continuously assess cybersecurity risk
- Perform internal and external security testing for cloud software products
- Regularly put cloud software products through static analysis
- Incident response plan and team in place to handle cyber-related disruption with business continuity and contingency plans
- Internal vulnerability analysis conducted
- Internal tests deployed to represent simulated hacker attacks

5

Data protection

- Data protected in compliance with applicable laws and cybersecurity best practices*
- Data privacy and data protection align with standards set by GDPR, CCPA, HIPAA, other regulations, and Illumina privacy and data protection policies
- CLIA laboratories ensure data quality with privacy, security, and regular HIPAA framework assessments
- Backup capabilities encrypt and store data in immutable formats for data confidentiality and integrity
- Illumina connected software portfolio provides enterprise-level protection with a range of deployment options

*Limit to cloud products; does not apply to instruments.

Responsible supply chain

Our suppliers are critical to our mission. Together, we magnify the positive impact to the customers we serve and the communities where we operate.

Supply chain overview

The Illumina global supply chain consists of suppliers, subcontractors, channel partners, manufacturing sites, distribution centers, and customers. We consider it business-critical to work with suppliers who share our commitment to integrity and who support an ethical compliant culture. We view our suppliers as partners in our effort to work toward a more equitable and sustainable future for all.

What our suppliers provide ranges from off-the-shelf packaging material to highly sophisticated reagents. We define our supplier base, for both direct and indirect, by categories, segments, and subcategories. Categories are defined by specific commodity or service. Each category has segments such as Strategic Suppliers. Subcategories depend on the product, region, or service. We source components, software, equipment, and services from more than 75 countries.

Supplier code of conduct

We hold our suppliers to the same standards of business conduct that we set for ourselves. We require them to comply with the standards of behavior outlined in our [Supplier Code of Conduct](#) and exhibit social responsibility and environmental stewardship. All new suppliers are required to acknowledge the Supplier Code of Conduct to complete the onboarding process.

The Supplier Code of Conduct is consistent with commitments we made both as a signatory of the [United Nations Global Compact](#) and as a member of the Dow Jones Sustainability World Index.

We expect our suppliers to:

- Comply with applicable, local, US, and international regulations
- Uphold their employees’ human rights and the Illumina [Human Rights Policy](#)
- Ensure a safe and healthy workplace
- Demonstrate social and environmental responsibility
- Conduct business in an ethical manner

Social impact and environmental screening are included in our Request for Information (RFI) tools when evaluating potential suppliers.

We embed the requirement for suppliers to commit to reducing their environmental footprint in our Supplier Code of Conduct and require our strategic suppliers to accept this with issuance of any purchase order.

OUR SUPPLY CHAIN

4533

suppliers across the supply chain

>\$1B

estimated payments to suppliers

872

active diverse suppliers

\$94.1M

diverse US supplier spend



Modern slavery prevention

Illumina is committed to conducting its business lawfully and with integrity. We work to continually strengthen our practices to ensure no human trafficking, slavery, or forced or compulsory labor (“modern slavery”) occurs in any part of our global value chains and global operations. We also seek to ensure that our global business partners do not use modern slavery in any of its forms in providing goods or services. In 2023, we updated our Modern Slavery Statement to include disclosures for the Canadian Fighting Against Forced Labour and Child Labour in Supply Chains Act. Additional information is available in our [Modern Slavery Statement 2023](#).

Conflict-free minerals

Illumina supports international efforts to ensure no conflict minerals directly or indirectly benefit armed groups in the Democratic Republic of Congo or adjoining countries. To this end, Illumina expects all suppliers to commit to the [Responsible Business Alliance \(RBA\) Code of Conduct](#). Through our [Conflict-Free Minerals Policy](#), we expect all our suppliers to establish their own due diligence programs to ensure supply chains are free of conflict minerals and to make those due diligence measures available to us upon request. Illumina routinely evaluates its suppliers to ensure they are adhering to our expectations and values.

Verification and due process

We only build relationships with business partners that share our commitment to fulfilling all legal and ethical obligations. We never knowingly conduct business with business partners that employ underage individuals, employ forced labor, or use corporal punishment to discipline employees, regardless of whether such practices are permitted by law.

We perform due diligence on new business partners to verify that they meet our standards. This process involves conducting initial risk assessments when onboarding new suppliers and conducting periodic assessments of performance. In addition, for supply chain areas of higher risk, we take steps to enhance our risk mitigation strategies. Prior to engaging in business with any supplier, we utilize tools that provide up-to-date sanction lists from governments around the world that identify companies and individuals involved in criminal activities such as money laundering, financing paramilitary groups, etc. In addition, we utilize tools to continuously monitor our supplier base for potential risk elements such as financial stability, leadership changes, global news, and others.

We encourage all employees and business partners to report potential violations or concerns through a variety of formal channels, including our Legal team and/or our [Compliance and Fraud Prevention Reporting website or hotline](#).

Channel partners

Our products are available around the globe through a robust channel partner network. Our partners not only offer critical access to our products throughout the world but also provide the same level of sales, marketing, service, and support that we offer to customers directly. The [Illumina Channel Partner Code of Conduct](#) requires that channel partners match the Illumina commitment to business integrity, ethical conduct in the marketplace, adherence to all applicable laws, and the fundamental elements of human rights. Illumina is a member of the Advanced Medical Technology Association (AdvaMed) and MedTech Europe. Channel partners are required to adhere to the applicable provisions of the [AdvaMed Code of Ethics](#) and [MedTech Europe Code of Ethical Business Practice](#).

LEARN MORE

- [Channel Partner Code of Conduct](#)
- [Illumina Modern Slavery Statement 2023](#)
- [Conflict-Free Minerals Policy](#)
- [Responsible Use of Stem Cells Position Statement](#)
- [Animal Testing Position Statement](#)

Sustainable supply chain

We engage with strategic suppliers and business partners on climate-related issues, holding them to the same high standards of business conduct that we set for ourselves. We require suppliers to commit to reducing their environmental footprint in our Supplier Code of Conduct and require our strategic suppliers to accept this with issuance of any purchase order.

CSR supplier program

In 2023, we initiated an ongoing project to strengthen our CSR supplier program by updating our evaluation criteria for new suppliers. Through analysis of key regulations, reporting frameworks, and third-party CSR raters’ methodologies, we developed an evaluation assessment that will aid in tracking our suppliers’ emission and CSR data performance. By improving the measurement of supplier CSR data, we can more accurately track and report our CSR performance against short- and long-term goals. Going forward, we plan to deepen our engagement with key suppliers on their CSR performance and collectively work toward shared targets.

We also expanded our current practices to protect and promote the right to freedom from forced labor and modern slavery by engaging with a third party to help us initiate human rights due diligence of our supply chain.

Scope 3 emissions management

We recognize that our environmental footprint extends beyond our facility walls, and we work with relevant functional groups on projects to further drive down emissions from our value chain. In 2021, we assessed 100% of our supply chain as part of our Scope 3 emission data collection. Review our [Scope 3 reduction efforts](#).



Product quality and safety

Illumina is dedicated to being the leading provider of integrated solutions that advance the understanding of genetics and health. We achieve this through our focus on the customer experience, our commitment to continual improvement, the effectiveness of our quality management system, and compliance with regulatory requirements.

During 2023, Illumina initiated one recall for cybersecurity vulnerability that was reported to the US Food and Drug Administration (FDA).

Quality management systems

The following locations are certified to the ISO 13485 Standard, which specifically covers the quality of medical devices:

- San Diego, CA
 - Hayward, CA
 - Madison, WI
 - Eindhoven, Netherlands
- Singapore
 - Shanghai, China
 - Cambridge, UK

100%

Illumina core facilities* participated in third-party audit programs



*Core facilities: San Diego (i3, HQ, Distribution Center), Foster City, Hayward, Madison, UK Illumina Centre, Netherlands, and Singapore Woodlands.

Supplier quality vision and values

The Illumina Supplier Quality Vision is to construct and foster a leading supplier base that ensures safe and quality products every time.

The supplier quality management life cycle incorporates the following phases:

- Initial risk assessments
 - Qualification
- Audits
 - Monitoring

Working with our suppliers, we focus on the customer experience, continual improvement, effectiveness of our quality management system, and compliance. All Illumina Direct Tier 1 suppliers are subject to onboarding and qualification per Illumina Purchasing Controls. All products have traceability, and inventory is tracked via our inventory management system, SAP. Products may contain bar codes, lot numbers, and/or unique identifiers.

Supplier quality management cycle

A quality management system is a critical aspect at every stage of the product life cycle to ensure that policies and objectives are in place and product quality standards are of the highest caliber.

- Supplier selection and evaluation
- Supplier qualification
- Supplier monitoring
- Component qualification

LEARN MORE

- [Supplier Quality Manual](#)
- [Quality Policy Statement](#)





Appendix

About this report

Our report has been designed to provide a comprehensive and integrated view of our commitments, progress, and activities related to our corporate social responsibility program and most material environmental, social, and governance (ESG) themes.

Boundaries and exclusions

The boundary of this report includes only core Illumina activities.

Reporting period

January 1, 2023, to December 31, 2023, unless otherwise indicated.

Baseline year

2019, unless otherwise indicated.

Materiality

Based on the [materiality assessment refreshed](#) in 2021.

Currency references

US dollars

Re-statements

We conduct ongoing data review to ensure accuracy and consistency. Any material data changes would be identified. In 2023, there was one restatement of water data noted as a footnote on page 77.

Assurance

[Limited assurance](#) has been provided in accordance with ISAE 3000 and ISAE 3410 on the following topics:

- Scope 1, 2, and 3 GHG emissions data
 - Energy data
- Water data
 - Waste data
 - Human capital data

Reporting frameworks

- In accordance with the GRI standards
- Sustainability Accounting Standards Board (SASB)
- Task Force on Climate-related Financial Disclosures (TCFD)
- UN Sustainable Development Goals (SDGs)
- UN Universal Declaration of Human Rights
- Dow Jones Sustainability Index
- CDP*
- Bloomberg Gender Equality Index
- HRC Corporate Equality Index
- ISO 26000 as reference to provide guidance for integration of social responsibility

Signatory participation

- United Nations Global Compact (UNGC)+
- We Mean Business Coalition 1.5°C
- UN Race to Zero
- CEO Action for Diversity & Inclusion
- UN Women Empowerment Principles
- STEMM Opportunity Alliance

Relevant memberships

- Business for Social Responsibility (BSR)
- World Economic Forum
- Association of Corporate Citizenship Professionals (ACCP)
- Chief Executives for Corporate Purpose (CECP)
- CSR Board.Org
- World 50
- Sustainable Packaging Coalition
- My Green Lab



CONTACT

We welcome your feedback at csr@illumina.com

LEARN MORE

[Illumina ESG reporting hub](#)

CSR appendix contents

- 65

About this report
- 66

2030 targets
- 67

Key performance indicators
- 67

About Illumina
- 67

Accelerate access to genomics
- 67

Nurture our people and communities
- 75

Integrate sustainability
- 78

Operate responsibly
- 81

GRI Index
- 84

SASB Index
- 85

TCFD Index
- 89

Assurance statements
- 90

Disclosures

*To access Illumina's public facing CDP submission [Learn more](#).
+UNGC Communication on Progress Illumina participant [page](#).

Progress on our 2030 targets

Our focus areas	Objectives	2030 Targets	✓ Achieved	🔄 In Progress	2023 Progress
Accelerate access to genomics	1 Be the engine of genomic innovation 2 Drive down the cost of sequencing 3 Expand the reach of genomics	🔄 Achieve 2 billion covered lives by 2026 ✓ Reach at least 25,000 medical education learners annually 🔄 Reach 5 million STEM learners			1.3 billion lives covered >27,000 medical education learners reached 1.6 million STEM learners reached from 2019 baseline
	SDG Alignment Targets: 3.d, 17.6, 17.7, 17.16 3 Good health 4 Quality education 10 Reduced inequalities 17 Partnerships for the goals				

Nurture our people and communities	1 Practice diversity, equity, and inclusion 2 Attract extraordinary talent 3 Invest in our people 4 Support employee health, safety, and well-being 5 Engage our employees and communities	✓ Increase gender representation in global leadership* ✓ Maintain zero net pay gap ✓ Increase minorities** in executive leadership+ (US) ✓ Increase underrepresented minorities§ in US workforce and leadership* 🔄 Reduce recordable injury and illness rate 🔄 Donate 100,000+ volunteer hours ✓ Achieve 50% employee participation in giving and volunteering			4% increase from 2019 baseline Maintained for 5th consecutive year 8% increase from 2019 baseline 2% increase in leadership; 1% increase in workforce from 2019 baseline 48% decrease from 2019 baseline 47,130 volunteer hours donated from 2019 baseline 58% employee participation
	SDG Alignment Targets: 10.3, 5.b 4 Quality education 5 Gender equality 10 Reduced inequalities				

Integrate sustainability	1 Drive climate action 2 Operate sustainable facilities 3 Develop sustainable products 4 Leverage genomics for sustainability applications	🔄 Deliver net zero emissions (Scope 1,2,3) by 2050 🔄 Reduce emissions by 46% (Scope 1,2) 🔄 Reduce emissions by 46% (Scope 3) ✓ Achieve 100% renewable electricity 🔄 Reach 90% landfill diversion at core sites 🔄 Reach 10% reduction in water intensity at core sites 🔄 Reduce packaging by 75%			In progress 48% decrease from 2019 baseline† 16% increase from 2019 baseline; 24% decrease YoY 100% renewable electricity† 56% landfill diversion at core sites 2.6% increase in water intensity at core sites; 8.3% decrease YoY in total water consumption 53% reduction from 2019 baseline
	SDG Alignment Targets: 12.2, 12.5, 13.2 9 Industry structure and innovation 12 Responsible consumption and production 13 Climate action				

Operate responsibly	1 Practice strong corporate governance and compliance 2 Act ethically and with integrity 3 Uphold high standards for data security and privacy 4 Foster a responsible supply chain 5 Advance product quality and safety	✓ Ensure 100% strategic suppliers committed to reducing their environmental footprint 🔄 Achieve 20% spend with diverse suppliers (US) ✓ Achieve top industry CSR ratings			100% strategic suppliers committed to reducing their environmental footprint 11% spend with diverse suppliers (US) Top industry rating for DJSI, Sustainalytics, Just Capital, and others
	SDG Alignment Targets: 9.2, 10.3, 17.16 10 Reduced inequalities 17 Partnerships for the goals				

Core sites: San Diego (i3, HQ, Distribution Center), Foster City, Hayward, Madison, UK Illumina Centre, the Netherlands, and Singapore Woodlands.

*Through onsite generation, purchased renewable electricity, renewable energy credits, and Green-e certified nature-based carbon credits.

*Leadership: manager, equivalent, and above.

*Executive leadership: director, equivalent, and above.

§Underrepresented minorities (US): Black, Native, Pacific Islander, Hispanic or Latino, two or more.

**Minorities (US): Asian, Black, Native, Pacific Islander, Hispanic or Latino, 2 or more.

As our business evolves and matures, we consistently evaluate our CSR strategy, targets and the connection to our business priorities. Changes in leadership and macroeconomic trends have led to prioritization of our 2023 targets listed here. A deeper review with a double materiality lens is planned for future inclusion and evaluation.

Key performance indicators

Introduction

General	2023
Name of organization	Illumina, Inc.
Location of headquarters	San Diego, California, US
Number of global locations	2023 10-K
Nature of ownership and legal form	Public Corporation
Core Illumina revenue	\$4.44 billion
Total capitalization (stockholder’s equity) market value as of 12/31 of reporting year	\$5.7 billion
5Y CAGR	6%
10Y CAGR	12%
R&D % revenue investment (GAAP)	23%
R&D spend (GAAP)	\$1.03 billion
Building footprint ^a	2,560,913 square feet
Facility additions ^{b,c}	1
Facility closures ^d	2

Accelerate access to genomics

Access to genomics	2023
Cost per genome ^e	~\$200
iHope™ patients supported ^f	330
Total iHope™ patients supported since program inception ^f	2312
Clinical iHope™ network sites	26
Professional health care learners	>27,000
NGS coverage outlook: total insured lives	1.3 billion

Footnotes:

^aAverage square feet during reporting year.

^bAdded commercial facilities in India.

^cAcquired new facility through acquisition.

^dClosed San Diego i3 site. Moved Israel Office.

^eAnnounced launch in 2022 based on US list price, assuming 120 Gb/genome, compared to NovaSeq™ 6000.

^fFamilies with multiple affected children are considered one case.

^gIn order to be included in the Causes Database, an organization must meet their country's NGO guidelines. Organizations are then evaluated against 1,200 watch lists and a number of National Taxonomy of Exempt Entities Codes (NTEE) that are also excluded from matching eligibility. Illumina currently blocks charitable organizations that have been found to discriminate against a specific race, religion, ethnicity, sexual orientation, or gender identity.

Nurture our people and communities

Total giving	2019 baseline	2021	2022	2023
Illumina, Inc. + Illumina Corporate Foundation + employee giving	\$1,185,088	\$14,966,331	\$18,239,858	\$9,223,443
Illumina, Inc. + Illumina Corporate Foundation	\$873,088	\$14,446,500	\$17,676,194	\$8,899,992
Number of causes supported ^g	1021	1345	1747	2281

Illumina, Inc. giving	2019 baseline	2021	2022	2023
In-kind product donations + cash grants	\$560,088	\$9,409,966	\$12,379,381	\$8,899,992

Illumina Corporate Foundation giving	2019 baseline	2021	2022	2023
Employee giving	\$312,000	\$519,831	\$563,664	\$323,451
Employee participation (giving)	19%	26%	28%	47%
Charitable grants	\$105,000	\$4,489,650	\$4,887,885	\$3,737,249
Total Foundation giving (not including employees)	\$313,000	\$5,036,534	\$5,860,477	\$4,237,544

Volunteer hours	2019 baseline	2021	2022	2023
Employee hours (including intern hours)	13,980	8772	20,142	20,506
Employee volunteering	29%	10%	39%	31%

Employee participation	2019 baseline	2021	2022	2023
Total employee participation (giving + volunteering)	40%	31%	50%	58%

Summary of international giving (outside US)	2019 baseline	2021	2022	2023
Illumina, Inc.	NA	\$7,044,842	\$5,994,599	\$960,571
Illumina Corporate Foundation	NA	\$1,089,892	\$1,980,646	\$1,363,411
Number of countries	24	44	46	63

STEM	2019 baseline	2021	2022	2023
Number of teachers and students engaged in Illumina STEM programs	306,170	315,000	396,865	348,691

Key performance indicators

Nurture our people and communities continued

Percentage female of each EEOC category (US)	2019 baseline	2021*	2022*	2023*
White/Caucasian	41%	43%	44%	43%
Native Hawaiian or Other Pacific Islander	31%	33%	31%	32%
American Indian or Native Alaskan	50%	50%	50%	50%
Asian	44%	45%	46%	46%
Hispanic or Latino	39%	44%	43%	42%
Black or African American	37%	45%	46%	50%
2 or More	45%	51%	51%	52%
Choose not to self disclose	40%	41%	37%	36%

Percentage male of each EEOC category (US)	2019 baseline	2021*	2022*	2023*
White/Caucasian	59%	57%	56%	57%
Native Hawaiian or Other Pacific Islander	69%	67%	69%	68%
American Indian or Native Alaskan	50%	50%	50%	50%
Asian	56%	55%	54%	54%
Hispanic or Latino	61%	56%	57%	58%
Black or African American	63%	55%	54%	50%
2 or More	55%	49%	49%	48%
Choose not to self disclose	60%	59%	63%	64%

Percentage gender by level 2023*	Male 2023*	Female 2023*	Undisclosed 2023*
Support to Entry Professional	50%	49%	0%
Intermediate to Senior Professional	56%	44%	1%
Supervisor to Assoc Director	54%	45%	1%
Director and Senior Director	61%	39%	1%
VP	64%	34%	1%
SVP / C suite	55%	45%	0%
Board of Directors	73%	27%	0%

Footnotes:

*Denotes data has been assured.

^aMinority defined as any EEOC category that is non-white/non-Caucasian. Does not include those who choose not to specify a race/ethnicity.

^bLeadership: Manager, equivalent, and above.

^cExecutive leadership: Director and above.

^dURM defined as underrepresented minorities (US) including: Black, Native, Pacific Islander, Hispanic or Latino, two or more.

General notes:

- Some segments may not add up to total due to rounding.

Learn more: [Federal Employer Information EEO-1 Report](#)

EEOC minority summary (US)	2019 baseline	2021*	2022*	2023*
Total employees identifying in minority race and ethnicity statistics ^a	2429	2830	3213	2818
Minority of total employees ^a	49%	50%	52%	52%
Non-Minority of total employees ^a	46%	45%	44%	44%
Decline to state of total employees	5%	5%	4%	4%
Representation of Black, Native, Pacific Islander, Hispanic or Latino, 2 or more communities in workforce	17%	17%	18%	18%
Representation of URMs (Black, Native, Pacific Islander, Hispanic or Latino, 2 or more communities in leadership) ^{b,d}	10%	12%	13%	12%
Minority representation in executive leadership ^c	21%	27%	30%	29%

EEOC minority by category (US)	2019 baseline	2021*	2022*	2023*
White/Caucasian	2284	2514	2756	2407
	46%	45%	44%	44%
Native Hawaiian or Other Pacific Islander	62	67	64	53
	1%	1%	1%	1%
American Indian or Native Alaskan	10	13	15	13
	<1%	<1%	0%	0%
Asian	1601	1863	2097	1838
	32%	33%	34%	34%
Hispanic or Latino	447	510	588	529
	9%	9%	9%	10%
Black or African American	121	130	146	122
	2%	2%	2%	2%
2 or More	188	248	303	263
	4%	4%	5%	5%
Choose not to self disclose	240	294	241	197
	5%	5%	4%	4%
Veteran	143	145	157	125
	3%	3%	3%	2%
Disabled	248	230	223	157
	5%	4%	4%	3%

Key performance indicators

Nurture our people and communities continued

Learn more: [Federal Employer Information EEO-1 Report](#)

EEOC data by level (US)	2019 baseline	2021*	2022*	2023*
Support to entry professional				
White/Caucasian	261	264	255	192
	24%	23%	23%	23%
Native Hawaiian or Other Pacific Islander	29	34	29	19
	3%	3%	3%	2%
American Indian or Native Alaskan	3	3	4	3
	<1%	<1%	<1%	0%
Asian	489	514	485	361
	45%	45%	44%	42%
Hispanic or Latino	173	185	191	160
	16%	16%	17%	19%
Black or African American	48	38	36	30
	4%	3%	3%	4%
2 or More	57	65	83	72
	5%	6%	7%	8%
Choose not to self disclose	38	35	26	14
	3%	3%	2%	2%
Intermediate to senior professional				
White/Caucasian	1403	1555	1721	1512
	50%	48%	46%	45%
Native Hawaiian or Other Pacific Islander	22	21	22	20
	1%	1%	1%	1%
American Indian or Native Alaskan	4	7	9	8
	<1%	<1%	<1%	0%
Asian	895	1078	1292	1162
	32%	33%	34%	35%
Hispanic or Latino	199	243	300	281
	7%	7%	8%	8%
Black or African American	51	63	75	65
	2%	2%	2%	2%
2 or More	105	150	181	163
	4%	5%	5%	5%
Choose not to self disclose	143	191	147	121
	5%	6%	4%	4%

Footnotes:

General notes:

* Denotes data has been assured.

• Some segments may not add up to total due to rounding.

EEOC data by level (US)	2019 baseline	2021*	2022*	2023*
Manager to associate director				
White/Caucasian	413	452	508	453
	54%	55%	54%	53%
Native Hawaiian or Other Pacific Islander	11	11	12	13
	1%	1%	1%	2%
American Indian or Native Alaskan	2	1	0	0
	<1%	<1%	0%	0%
Asian	182	214	243	234
	24%	26%	26%	27%
Hispanic or Latino	65	70	82	75
	9%	8%	9%	9%
Black or African American	17	22	26	20
	2%	3%	3%	2%
2 or More	22	23	28	19
	3%	3%	3%	2%
Choose not to self disclose	46	51	49	45
	6%	6%	5%	5%
Director and above				
White/Caucasian	207	243	272	250
	75%	70%	67%	66%
Native Hawaiian or Other Pacific Islander	0	1	1	1
	0%	<1%	<1%	0%
American Indian or Native Alaskan	1	2	2	2
	<1%	1%	<1%	1%
Asian	35	57	77	81
	13%	16%	19%	21%
Hispanic or Latino	10	12	15	13
	4%	3%	4%	3%
Black or African American	5	7	9	7
	2%	2%	2%	2%
2 or More	4	10	11	9
	1%	3%	3%	2%
Choose not to self disclose	13	17	19	17
	5%	5%	5%	4%

Nurture our people and communities continued

General notes:

- For all gender statistics, percentage of women is based on number of employees who identify as male or female, not total number of Illumina employees.
- Some segments may not add up to total due to rounding.

* Denotes data has been assured.
^aPercentage data for new hire by age represents the percentage of the total age group headcount for the reporting year.
^bRepresents percentage of new hires out of all female employees.

Key performance indicators

Nurture our people and communities continued

Employee turnover data	2019 baseline	2021*	2022*	2023*
Total turnover				
Total number of employee turnover	856	1154	1246	1734
Rate of employee turnover	11%	14%	13%	18%
Total number of voluntary turnover	644	1048	1050	674
Rate of voluntary turnover	9%	12%	11%	7%
Turnover by age				
Employees under 30	229	246	308	362
	15%	15%	16%	21%
Employees 30–50	489	749	787	1090
	10%	13%	12%	17%
Employees over 50	138	159	151	282
	12%	12%	10%	18%
Voluntary employee turnover under 30	195	233	279	176
	13%	15%	15%	10%
Voluntary employee turnover 30–50	366	686	654	429
	7%	12%	10%	7%
Voluntary employee turnover over 50	82	129	117	69
	7%	10%	8%	5%
Turnover by level				
Voluntary turnover support to entry professional	11%	14%	16%	9%
Involuntary turnover support to entry professional	3%	1%	2%	15%
Voluntary turnover intermediate to senior professional	8%	12%	9%	6%
Involuntary turnover intermediate to senior professional	2%	1%	2%	10%
Voluntary turnover manager to associate director	6%	11%	10%	6%
Involuntary turnover manager to associate director	4%	2%	1%	9%
Voluntary turnover director and above	6%	17%	9%	6%
Involuntary turnover director and above	4%	3%	2%	9%

Footnotes:

* Denotes data has been assured.

General notes:

- Some segments may not add up to total due to rounding.

Employee turnover data	2019 baseline	2021*	2022*	2023*
Total turnover by region				
AMR	530	763	646	1098
	11%	14%	11%	18%
APAC	223	251	405	417
	12%	12%	17%	17%
EMEA	103	140	195	219
	11%	12%	14%	16%
Voluntary turnover by region				
AMR	384	701	586	368
	8%	13%	10%	6%
APAC	188	224	315	192
	10%	11%	13%	8%
EMEA	72	123	149	114
	8%	11%	11%	8%
Voluntary turnover percentage by EEOC (us)				
White/Caucasian	8%	13%	9%	6%
Native Hawaiian or Other Pacific Islander	11%	5%	17%	9%
American Indian or Native Alaskan	0%	25%	7%	0%
Asian	7%	13%	11%	6%
Hispanic or Latino	8%	14%	10%	5%
Black or African American	11%	16%	12%	6%
2 or More	6%	21%	9%	7%
Choose not to self disclose	6%	13%	13%	6%

Key performance indicators

Nurture our people and communities continued

Parental leave ^a	2019 baseline	2021	2022	2023
Total number of employees who were entitled to parental leave	4714	5302	5916	5641
Total number of employees who took parental leave, by gender	Female 116 Male 65	Female 173 Male 89	Female 236 Male 128 Blank 1	Female 176 Male 192 Blank 1
Total number of employees who returned to work in the reporting period after parental leave ended, by gender	Female 116 Male 65	Female 166 Male 123	Female 226 Male 121 Blank 1	Female 170 Male 192 Blank 1
Total number of employees who returned to work after parental leave ended that were still employed 12 months after their return to work, by gender	Female 100 Male 54	Female 150 Male 107	Female 192 Male 102 Blank 1	Female 160 Male 180 Blank 1
Return to work and retention rates of employees who took parental leave, by gender	Return to Work: Female 100% Male 98% Retention: Female 86% Male 83%	Return to Work: Female 98% Male 99% Retention: Female 93% Male 89%	Return to Work: Female 97% Male 100% Retention: Female 85% Male 84%	Return to Work: Female 96% Male 100% Retention: Female 91% Male 93%

Benefit plan and other retirement	2019 baseline	2021	2022	2023
Percentage of salary contributed by employee or employer	US 401(k): Employee elected between 0–80%, Illumina matching contribution of 50% up to the first 6% employee election (3% of eligible salary)			
Level of participation in retirement plans, such as participation in mandatory or voluntary schemes, regional or country-based schemes, or those with financial impact	US 401(k): 97% employee voluntary participation		US 401(k): 98% employee voluntary participation	

Employee bonus and stock program	2019 baseline	2021	2022	2023
Employees eligible for annual VCP bonus		All employees		
Employees eligible to participate in employee stock purchase plan		All employees		

Footnotes:

Following the birth of a child or placement of a child for adoption or foster care, we provide 100% pay continuity to eligible US-based employees for up to six weeks to help ensure peace of mind during this essential time. In some cases, a mother could receive up to 28 weeks of pay continuity depending on the combination of leaves associated with childbirth.

*Employee survey participation rates in 2019 are calculated using an average of two surveys per year (Q2 and Q4 of each year). For 2020, the participation rate is based on an average of three quarterly surveys (Q2–Q4). For 2021, the participation rate is based on an average of four quarterly surveys (Q1–Q4).

General notes:

- For all training hour metrics, the values include only regular Illumina employees, not contingent workers.

Performance & career development review	2019 baseline	2021	2022	2023
Percentage of employees receiving regular performance and career development reviews (includes all administrative, production, technical, middle management, and senior management)	100%	100%	100%	100%

Employee survey ^b	2019 baseline	2021	2022	2023
Participation rate for employee iPulse survey	89%	80%	86%	88%

Average compensation ratio—women to men	2019 baseline	2021	2022	2023
Across all employee categories	100%	100%	99%	98%
Support to entry professional	102%	101%	100%	97%
Intermediate to senior professional	100%	99%	99%	98%
Supervisor to associate director	98%	100%	99%	97%
Director and above	101%	99%	98%	100%

Annual compensation ratio	2019 ^{baseline}	2021	2022	2023
Ratio of annual total compensation for the organization's highest-paid individual in each region to the median annual total compensation for all employees	Refer to Proxy Filing	Refer to Proxy Filing	Refer to Proxy Filing	Refer to Proxy Filing

Training	2019 baseline	2021	2022	2023
Average hours of training per employee per year	60	64	62	62
Hours of training by gender: Male	60	66	63	65
Hours of training by gender: Female	61	63	60	60
Hours of training by employee category: Individual Contributor	64	68	66	66
Hours of training by employee category: Middle Management	71	76	70	77
Hours of training by employee category: Senior Management	38	44	39	41
Hours of training by employee category: Executive Leadership	22	30	26	28
Hours of training by functional category: Commercial Operations	50	52	51	45
Hours of training by functional category: General Operations	23	27	25	28
Hours of training by functional category: Manufacturing	91	98	96	101
Hours of training by functional category: Research & Development	53	62	58	59
Total number of hours devoted to training on human rights	1737	3333	4726	3081
Applicable employees certified to Code of Conduct	99%	97%	97%	96%

Key performance indicators

Nurture our people and communities continued

Health & safety	2019 baseline	2021	2022	2023
Global recordable injury or illness incident rate (incident per 100 employees)	0.52	0.54	0.23	0.27
Lost time incident rate	0.74	0.23	0.12	0.10
Days Away Restricted Time (DART)	0.34	0.43	0.17	0.20
Environment, Health & Safety notices of violations	0	0	0	0
Environmental fines	0	0	0	0
Prevention reporting statistics	3611	1452	2054	4135

Employee safety	2019 baseline	2021	2022	2023
Number of work-related fatalities	0	0	0	0
Rate of work-related fatalities	0	0	0	0
The number of high-consequence work-related injuries and illnesses (excluding fatalities)	49	51	23	29
The rate of high-consequence work-related injuries and illnesses (excluding fatalities)	0.62	0.16	0.24	0.27
The number of recordable work-related injuries and illnesses	49	51	23	29
The rate of recordable work-related injuries and illnesses	0.62	0.16	0.24	0.27
The main types of work-related injury and illness	Ergonomics, strains, contusions, and sprains	Ergonomics and strains	Ergonomics, strains, contusions, and sprains	Slips, trips, ergonomics, strains, and sprains
The number of hours worked	15,647,395	15,946,780	19,462,592	18,055,184

Safety workers who are not employees but whose work and/or workplace is controlled by the organization	2019 baseline	2021	2022	2023
Number of work-related fatalities	0	0	0	0
Rate of work-related fatalities	0	0	0	0
The number of high-consequence work-related injuries and illnesses (excluding fatalities)	0	2	3	0
The rate of high-consequence work-related injuries and illnesses (excluding fatalities)	0	0.13	0.18	0
The number of recordable work-related injuries and illnesses	0	2	3	0
The rate of recordable work-related injuries and illnesses	0	0.13	0.18	0
The main types of work-related injury and illness	Ergonomics, Strains, Contusions, and Sprains	Fractures and strains	Ergonomics, strains, contusions, and sprains	N/A
The number of hours worked	2,741,396	2,986,473	3,296,423	2,687,619

Environmental, health & safety training				
Total hours of EHS training	26,758	43,066	45,022	43,067
Average hours per employee	3.7	4.1	4	4.1

General notes:

- Recordable injury and illness rate calculated using total hours worked from employees + contingent workers.
- Lost time incident rate calculated using total hours worked from employees + contingent workers.
- DART: Days Away, Restricted, or Transferred.
- Notice of violation reporting does not include minor observations from local municipalities.
- High-consequence work-related injuries are defined as all recordable injuries.
- Ergonomic injuries include repetitive stress injuries.
- Contingent workers: workers who are not employees but whose work and/or workplace is controlled by the organization.
- Rates have been calculated based on 200,000 hours worked.

Key performance indicators

Integrate sustainability

Energy consumption (Units: Gigajoules)	2019 baseline	2021*	2022*	2023*
Total fuel consumption from nonrenewable sources	247,576	403,211	375,516	357,299
Total fuel consumption from renewable sources	0	0	0	0
Generation from renewable sources consumed by the organization	1566	2417	2966	2837
Total energy consumption from nonrenewable sources	503,658	581,067	375,516	357,299
Total energy consumption from renewable sources	1566	9077	231,678	236,358
Total energy consumption	505,224	590,144	607,194	593,658

Energy consumption by activity and region (Units: Gigajoules)	2019 baseline	2021*	2022*	2023*
Total electricity (purchased + generated)	257,648	187,297	231,678	236,358
Purchased electricity	256,082	184,882	228,712	233,521
Generated electricity (onsite solar)	1566	2417	2966	2837
Total fuel	247,576	403,211	375,516	357,299
Natural gas	247,576	403,211	375,516	357,299
Total steam	0	0	0	0
Electricity, heating, cooling, steam sold	0	0	0	0
Total energy consumption AMR region	380,106	469,104	476,860	452,895
Total energy consumption EMEA region	47,779	36,358	36,308	39,282
Total energy consumption APAC region	75,752	84,681	94,026	101,481

Renewable electricity consumption	2019 baseline	2021*	2022*	2023*
Percentage of global electricity consumption that is renewable	0.6%	59%	100%	100%
Onsite solar generation	0.6%	1%	1%	1%
Renewable electricity purchased	0%	3%	37%	39%
Covered by Renewable Energy Credits	0%	55%	62%	60%

Footnotes:

* Denotes data has been assured.

General Notes:

- Boundary definition for energy and greenhouse gas emission inventory: sites >30,000 square feet or contain manufacturing, distribution, or significant R&D activities. These sites represent our jurisdictional control plus material locations. This scope accounts for 96% of our total 2019 estimated baseline footprint.
- Refrigerant-specific data is not included.
- Some segments may not add up to total due to rounding.
- The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard is utilized as the methodology to collect activity data and calculate Scope 1 and Scope 2 emissions.
- Renewable energy credits purchased for all non-renewable electric consumption bringing our collective market-based scope 2 emissions to 0.

Emissions (Units: Metric Tons CO ₂ e)	2019 baseline	2021*	2022*	2023*
Total Scope 1 & 2 (market-based) GHG emissions	34,404	26,265	18,902	17,993
Total Scope 1 & 2 (location-based) GHG emissions	34,404	36,914	39,924	39,130
Gross direct GHG emissions (Scope 1)	12,489	20,296	18,902	17,993
Gross market-based energy indirect GHG emissions (Scope 2)	21,915	5,968	0	0
Gross location-based energy indirect GHG emissions (Scope 2)	21,915	16,618	21,022	21,137

Regional emissions market-based (Units: metric tons co ₂ e)	2019 baseline	2021*	2022*	2023*
Scope 1 & 2 AMR region	22,903	25,060	18,159	17,173
Scope 1 & 2 EMEA region	3,014	864	743	820
Scope 1 & 2 APAC region	8,488	341	743	0

Country-specific scope 1 emissions (Units: metric tons co ₂ e)	2019 baseline	2021*	2022*	2023*
China	0	0	0	0
Netherlands	73	74	55	82
Singapore	0	0	0	0
United Kingdom of Great Britain and Northern Ireland	1132	768	688	738
United States of America	11,284	19,454	18,159	17,173

Country-specific scope 2 market-based emissions (Units: metric tons co ₂ e)	2019 baseline	2021*	2022*	2023*
China	388	0	0	0
Netherlands	384	8	0	0
Singapore	8099	341	0	0
United Kingdom of Great Britain and Northern Ireland	1425	14	0	0
United States of America	11,619	5605	0	0

Key performance indicators

Operate responsibly

Governance	2019 baseline	2021	2022	2023
Noncompliance with environmental laws and regulations; Significant fines and non-monetary sanctions for noncompliance with environmental laws and/or regulations	0	0	0	0
Number of substantiated complaints concerning breaches of customer privacy and losses of customer data	0	0	0	0
Number of public legal cases regarding corruption brought against the organization or its employees during the reporting period	0	0	0	0
Antitrust cases	2	See notes 1, 2	See notes 1, 2	See notes 1, 2
Nature and total number of critical concerns communicated to highest governance body regarding CSR topics	0	0	0	See note 3
Total employees covered by collective bargaining agreements	0	0	0	0
Incidents of discrimination and corrective actions taken	See note 4	See note 4	See note 4	See note 4
Transparency Reporting Law Enforcement & National Security Requests	N/A	2021 Privacy Transparency Report	2022 Privacy Transparency Report	2023 Privacy Transparency Report
Security personnel are trained in organization's policies or procedures concerning aspects of human rights that are relevant to operations.	N/A	N/A	Yes	Yes
The organization is unaware of any operations in which there is a significant risk for incidents of child labor.	N/A	N/A	Confirmed	Confirmed
The organization is unaware in which there is a significant risk for incidents of forced or compulsory labor.	N/A	N/A	Confirmed	Confirmed

1. On January 11, 2021, Complete Genomics, Inc., BGI Americas Corp., and MGI Americas, Inc. (collectively BGI) filed a complaint in the US District Court for the Northern District of California alleging that Illumina violated federal antitrust and state unfair competition laws, based on a patent infringement suit Illumina filed against BGI in the same court. Illumina denies the allegations, which are without merit. On July 14, 2022, we entered into a settlement and license agreement with BGI resolving litigations between the parties, resulting in the dismissal of BGI's antitrust and unfair competition claims. None of the parties made an admission of liability in entering into the agreement.
2. On March 30, 2021, the United States Federal Trade Commission filed an administrative complaint alleging that Illumina's acquisition of GRAIL, Inc. violates federal antitrust laws. Illumina denies the allegations. Following a full trial on the merits, the FTC's Chief Administrative Law Judge (ALJ) rejected the FTC's complaint and found in favor of Illumina. On April 3, 2023, the FTC Commissioners overturned the ALJ's decision in Illumina's favor, and the FTC Commissioners issued an opinion and order requiring Illumina to divest GRAIL. Illumina appealed to the US Court of Appeals for the Fifth Circuit, which on December 15, 2023, found that the FTC Commissioners applied the wrong legal standard. The Fifth Circuit vacated the FTC's order to divest GRAIL and remanded the case to the FTC to reconsider the matter under the correct legal standard as articulated by the Fifth Circuit. In parallel proceedings, the European Commission also issued orders prohibiting Illumina's acquisition of GRAIL, and instructed Illumina to divest GRAIL. On July 12,

CSR governance topics	Position	Level from CEO	Level from Board
Corporate Social Responsibility / CSR	SVP, Chief People Officer	1	2
Environment, Health & Safety, Supply Chain, Facilities, Operations	SVP, Chief of Global Operations	1	2
People, Employment, Diversity, Equity, and Inclusion	SVP, Chief People Officer	1	2
Compliance, Ethics, Legal	SVP, General Counsel	1	2
Product	SVP, Chief Technology Officer	1	2
Cybersecurity	SVP, Chief Information Officer	1	2
Finance, Investor Relations, Internal Audit	SVP, Chief Financial Officer	1	2

Board of Directors (BoD)	2023
BoD level oversight for CSR and CSR (including themes of sustainability and climate action; diversity, equity, and inclusion; human rights; cybersecurity; data privacy; and ethical and responsible business practices)	Yes
Clawback provision	Yes
Commitment to gender diversity on BoD	Yes
BoD composition by gender (% female)	27%
BoD composition by racial/ethnic minority representation	9%
Number of directors	11
Number of independent directors	10
Average Board tenure	4 years

- 2023, the European Commission issued a fine pursuant to Article 14(2)(b) of the EU Merger Regulation of approximately €432 million, based on the allegation that Illumina consummated the acquisition of GRAIL during the pendency of the European Commission's review. Illumina denies the allegations and is appealing the European Commission's decisions relating to the GRAIL acquisition. While the appeals are pending, Illumina has announced it will divest GRAIL in accordance with the EU's order.
3. Illumina treats this data as confidential company information. Supplemental references: [Proxy Filing](#); [Code of Conduct](#)
4. During the past 12 years, neither the EEOC nor any court or administrative agency has issued a finding against Illumina in a claim involving discrimination. No incidents were filed during the reporting period. The matters that were pending during the last reporting period have been resolved. We do not tolerate acts of discrimination, and promote an open culture to report concerns (including anonymously). Illumina takes all reports of misconduct seriously and has a strict non-retaliation policy. If a report is substantiated, the company would respond as it deems appropriate or necessary, consistent with the law, and will act swiftly to correct the problem and deter future occurrences. Depending on the circumstances, this may include training and/or disciplinary action up to, and including, termination. Individuals may also be subject to civil or criminal prosecution for violating the law

Key performance indicators

Operate responsibly continued

Supply chain	2019 baseline	2021	2022	2023
Spend with direct suppliers	\$440 million	\$585 million	\$694 million	\$648 million
Supplier Code of Conduct in place			Yes	Yes
Geographic location of suppliers	Countries: AE, AM, AR, AT, AU, BE, BS, CA, CH, CL, CN, CO, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HK, ID, IE, IL, IN, IS, IT, JP, KR, LT, LU, MO, MX, MY, NL, NO, NZ, PA, PE, PH, PL, PT, RO, RU, SE, SG, SI, TH, TR, TW, UA, US, UY, VN, ZA	Countries: AE, AM, AR, AT, AU, BE, BG, BR, CA, CH, CN, CO, CZ, DE, DK, ES, FI, FR, GB, GH, HK, ID, IE, IL, IN, IT, JP, KR, LK, LT, LU, LV, MY, NL, NO, NZ, PL, RO, RU, SA, SE, SG, SI, TH, TR, TW, US, ZA	Countries: US, DE, CA, GB, SG, CH, JP, PL, FR, AU, ZA, BE, NZ, IT, CN, NL, DK, NO, MY, IN, ES, IS, SE, IL, PT, AR, HK, AM, KR, UA, IE, BN, ID, BD, EC, AT, FI, TW, MO, LU, VN, TR, LK, AE, MX, CZ, RU, RO, TH, BR, LV, CR, PH, BY, UY, SA, HU, SI, GR, PK, CY, BG, LT, RS, BO, PY, NG, KY, GT, PA, SV, KE, EE, PE, CL, CO	Countries: AU, BE, CA, CH, CN, CZ, DE, DK, ES, FR, GB, HK, IE, IT, JP, KR, LT, MX, MY, NL, SE, SG, TH, TW, US, VN, ZA
A description of the organization's supply chain	Illumina's global supply chain consists of suppliers, subcontractors, channel partners, manufacturing sites, distribution centers, and customers			
Types of suppliers	Direct, indirect, strategic, finished medical device, custom spec, off the shelf, and services			
Number of suppliers engaged by organization	3891	3798	3323	4533
Estimated monetary value of payments made to suppliers	>\$1 billion	>\$1 billion	>\$1 billion	>\$1 billion
Number of active diverse suppliers (US)	>400	517	919	872
Diverse supplier spend	\$190 million	\$209 million	\$269 million	\$107 million
Percentage of total PO spend with diverse suppliers (US)	19%	17%	18%	11%
Percentage of total PO spend with total diverse suppliers (Global)	N/A	N/A	13%	8%
Percentage of strategic suppliers that have committed to minimizing their environmental footprint	N/A	84%	100%	100%

Key performance indicators

Operate responsibly continued

Political contributions	2019 baseline	2021	2022	2023
Total monetary value of financial and in-kind political contributions made directly and indirectly by the organization by country and recipient/beneficiary	\$50,000	\$0	\$0	\$0

Trade association & memberships	2021	2022	2023
Illumina participates in various trade associations and industry memberships for collaboration and exchange of ideas. Some of these organizations may utilize a portion of membership fees for non-deductible state and federal lobbying and political expenditures. As part of our transparency practices, we disclose trade memberships for which we contribute at least \$5,000 annually in fees.			
Trade and industry group memberships above \$5,000 threshold annually			
Global			
World Economic Forum	\$330,000	\$330,000	\$0

EMEA trade association memberships			
All.Can (ASBL)	\$35,000	\$32,204	\$31,752
EUCOPE	\$27,892	\$19,322	\$19,034
US Qatar Business Council	\$10,000	\$10,000	\$10,000
US Saudi Arabian Business Council	\$10,000	\$10,000	\$10,000
US UAE Business Council	\$10,000	\$10,000	\$10,000
International Quality Network for Pathology (IQN Path)	\$5000	\$0	\$5439
American European Community Association (AECA)			\$5634

APJ and greater China trade association memberships			
US India Business Council	\$27,500	\$20,000	\$0
Pathology Technology Australia	\$7309	\$20,868	\$0
US Chamber — China	\$25,000	\$25,000	\$0
US-China Business Council (USCBC)	\$15,000	\$15,000	\$15,000
US-ASEAN	\$11,686	\$14,500	\$18,850
AmCham China	\$7413	\$4026	\$4007

U.S. trade association memberships			
World 50, Inc.	\$393,766	\$240,850	\$183,670
US Chamber of Commerce	\$150,000	\$160,000	\$360,000
Coalition for Access to Prenatal Screening (CAPS)	\$100,000	\$100,000	\$75,000
Access to Comprehensive Genomic Profiling Coalition	\$80,813	\$75,000	\$75,000
Procurement Leaders	\$57,000	\$58,710	\$0
Biocom	\$56,300	\$57,500	\$67,500
American Clinical Laboratory Association (ACLA)	\$50,000	\$50,000	\$50,000
Coalition for 21st Century Medicine	\$50,000	\$50,000	\$0
Personalized Medicine Coalition (PMC)	\$32,000	\$32,000	\$38,000
California Chamber of Commerce	\$25,000	\$0	\$0
San Diego Economic Development Corp. (SDEDC)	\$25,000	\$25,000	\$25,000
National Association of Manufacturers (NAM)	\$24,500	\$24,500	\$0
AdvaMed	\$19,950	\$19,950	\$19,950
American Cancer Society—Cancer Action Network (ACS-CAN) ^a	\$10,000	\$0	\$0
San Diego Regional Chamber of Commerce (SD Chamber)	\$7650	\$7650	\$7900
Industrial Environmental Association (IEA)	\$6000	\$6000	\$6000
Healthcare Business Women's Association (HBA)	\$5000	\$5000	\$0

For the US trade associations with membership fees greater than \$50,000, the portion of such payments that is non-deductible under Section 162(e)(1)(B) of the Internal Revenue Code, such as payments to organizations designated as 501(c)(4) and 501(c)(6) associated with state and federal lobbying efforts annually.

Organization	Total annual membership fee			% Membership fees used for state or federal lobbying			Dollars applied to state or federal lobbying from membership fees		
	2021	2022	2023	2021	2022	2023	2021	2022	2023
US Chamber of Commerce	\$161,625	\$160,000	\$360,000	25%	35%	35%	\$40,406	\$56,000	\$126,000
Coalition for Access to Prenatal Screening (CAPS)	\$100,000	\$100,000	\$75,000	25%	0%	25%	\$25,000	\$0	\$18,750
American Clinical Laboratory Association (ACLA)	\$50,000	\$50,000	\$50,000	33%	30%	59%	\$16,500	\$29,500	\$29,500
Biocom	\$56,300	\$57,500	\$67,500	10%	10%	10%	\$5630	\$5750	\$6750
Coalition for 21st Century Medicine	\$50,000	\$50,000	\$0	45%*	30%	0%	\$22,500*	\$15,000	\$0

Footnotes:

^aFor the trade associations with membership fees greater than \$50,000, the portion of such payments that is non-deductible under Section 162(e) (1)(B) of the Internal Revenue Code, such as payments to organizations designated as 501(c)(4) and 501(c)(6) associated with state and federal lobbying efforts annually.

General notes:

- Updated data to reflect most current information.

GRI index

GRI description	GRI section	Illumina report
GRI 1: Foundation		
Statement of use	Illumina has reported in accordance with the GRI Standards for the period 1st January 2023 to 31st December 2023	
GRI 1 reference	GRI 1	GRI 1: Foundation 2021
GRI 2: General disclosures		
Organizational details	GRI 2-1	Introduction , Appendix
Entities included in the organization, sustainability reporting	GRI 2-2	Introduction , Appendix
Reporting period, frequency and contact point	GRI 2-3	About this report
Restatements of information*	GRI 2-4	About this report
External assurance	GRI 2-5	Assurance Letter
Activities, value chain and other business relationships	GRI 2-6	Introduction , CSR at Illumina , Access , Sustainability , Responsibility , Appendix
Employees	GRI 2-7	People , Appendix
Workers who are not employees	GRI 2-8	Appendix
Governance structure and composition	GRI 2-9	CSR at Illumina , Responsibility , Appendix
Nomination and selection of the highest governance body	GRI 2-10	CSR at Illumina , Responsibility , Appendix
Chair of the highest governance body	GRI 2-11	CSR at Illumina , Responsibility , Appendix
Role of the highest governance body in overseeing the management of impacts	GRI 2-12	CSR at Illumina , Responsibility , Appendix
Delegation of responsibility for managing impacts	GRI 2-13	CSR at Illumina
Role of the highest governance body in sustainability reporting	GRI 2-14	CSR at Illumina , Responsibility , Appendix
Conflicts of interest	GRI 2-15	Responsibility
Communication of critical concerns	GRI 2-16	Appendix
Collective knowledge of the highest governance body	GRI 2-17	Responsibility
Evaluation of the performance of the highest governance body	GRI 2-18	Responsibility
Remuneration policies	GRI 2-19	Responsibility , Proxy
Process to determine remuneration	GRI 2-20	Responsibility , Proxy
Annual total compensation ratio	GRI 2-21	Responsibility , Proxy
Statement on sustainable development strategy	GRI 2-22	CEO Message , CSR at Illumina , Sustainability
Policy commitments	GRI 2-23	CSR at Illumina , People , Sustainability , Responsibility , ESG Hub
Embedding policy commitments	GRI 2-24	CSR at Illumina , People , Sustainability , Responsibility , ESG Hub
Processes to remediate negative impacts	GRI 2-25	Responsibility , Appendix
Mechanisms for seeking advice and raising concerns	GRI 2-26	Responsibility , Appendix
Compliance with laws and regulations	GRI 2-27	People , Responsibility
Membership associations	GRI 2-28	CSR at Illumina , Access , People , Sustainability , Appendix
Approach to stakeholder engagement	GRI 2-29	CSR at Illumina
Collective bargaining agreements	GRI 2-30	Appendix

GRI description	GRI section	Illumina report
GRI 3: Material topics		
Process to determine material topics	GRI 3-1	CSR at Illumina
List of material topics	GRI 3-2	CSR at Illumina
Management of material topics	GRI 3-3	CSR at Illumina , Access , People , Sustainability , Responsibility
GRI 201: Economic performance		
Management of material topics	GRI 3-3	CSR at Illumina
Direct economic value generated and distributed	GRI 201-1	Proxy
Financial implications and other risks and opportunities due to climate change	GRI 201-2	Sustainability , Responsibility , Appendix
Defined benefit plan obligations and other retirement plans	GRI 201-3	People , Appendix
GRI 202: Market presence 2016		
Management approach: Market Presence	GRI 3-3	Introduction , CSR at Illumina , Access
Ratios of standard entry level wage by gender compared to local minimum wage	GRI 202-1	People , Appendix
Proportion of senior management hired from the local community	GRI 202-2	People
GRI 203: Indirect economic impacts		
Management approach: Indirect Economic Impacts	GRI 3-3	Introduction , Access , People , Sustainability , Responsibility
Infrastructure investments and services supported	GRI 203-1	Introduction , Access , People , Sustainability , Appendix
Significant indirect economic impacts	GRI 203-2	Access , People , Sustainability
GRI 204: Procurement practices		
Management approach: Procurement Practice	GRI 3-3	CSR at Illumina , Responsibility , Appendix
Proportion of spending on local suppliers	GRI 204-1	Responsibility , Appendix
GRI 205: Anti-corruption		
Management approach: Anti-corruption	GRI 3-3	CSR at Illumina , Responsibility , Appendix
Operations assessed for risks related to corruption	GRI 205-1	Responsibility , Appendix
Communication and training about anti-corruption policies and procedures	GRI 205-2	Responsibility , Appendix
Confirmed incidents of corruption and actions taken	GRI 205-3	Appendix
GRI 206: Anti-competitive behavior		
Management approach: Anti-competitive	GRI 3-3	CSR at Illumina , Responsibility
Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	GRI 206-1	Appendix

Footnotes:

*A restatement of water data occurred in this 2023 reporting period due to accounting updates identified for water usage related to cooling towers at Singapore NorthTech facility.

SASB index

The Sustainability Accounting Standards Board (SASB) is an independent standards-setting organization that promotes disclosure of material sustainability information to meet investor needs. Illumina is classified officially in the Health Care Sector and Medical Equipment & Supply Industry. We have also chosen to add relevant sections from the industry categories of Biotechnology & Pharmaceuticals as well as Software & IT Services.

Dimension		Disclosure Topic	Code	Accounting Metric	Response
PRIMARY SICS SECTOR: HEALTHCARE Primary SICS industry: medical equipment & supplies					
Social capital	Access & affordability	Affordability and pricing	HC-MS-240a.1	Ratio of weighted average rate of net price increases to the annual increase in the U.S. Consumer Price Index	Access p21
		Affordability and pricing	HC-MS-240a.2	Description of how price information for each product is disclosed to customers or to their agents	Access p21
	Product quality & safety	Product safety	HC-MS-250a.1	Number of FDA recalls issued, total units recalled	Responsibility
		Product safety	HC-MS-250a.2	List of products listed in the FDA's MedWatch safety alerts for human medical products database	0
		Product safety	HC-MS-250a.3	Number of fatalities related to products as reported in FDA Manufacturer and User Facility Device Experience	0
		Product safety	HC-MS-250a.4	Number of FDA enforcement actions taken in response to violations of Current Good Manufacturing Practices (cGMP)	0
	Selling practices & product labeling	Ethical marketing	HC-MS-270a.1	Total amount of monetary losses as a result of legal proceedings associated with false marketing claims	0
		Ethical marketing	HC-MS-270a.2	Description of code of ethics governing promotion of off-label use of products	Responsibility , Illumina Code of Conduct
Business model & innovation	Product design & lifecycle management	Product design & lifecycle management	HC-MS-410a.1	Discussion of process to assess and manage environmental and human health considerations associated with chemicals in products, and meet demand for sustainable products	Sustainability
		Product design & lifecycle management	HC-MS-410a.2	Total amount of products accepted for takeback and reused, recycled, or donated, broken down by: (1) devices and equipment and (2) supplies	Sustainability , Appendix
	Supply chain management	Supply chain management	HC-MS-430a.1	Percentage of (1) entity's facilities and (2) Tier I suppliers' facilities participating in third-party audit programs for manufacturing and product quality	Responsibility , Appendix
		Supply chain management	HC-MS-430a.2	Description of efforts to maintain traceability within the distribution chain	Responsibility , Appendix
		Supply chain management	HC-MS-430a.3	Description of the management of risks associated with the use of critical materials	Responsibility , Appendix
	Leadership & governance	Business ethics	Business ethics	HC-MS-510a.1	Total amount of monetary losses as a result of legal proceedings associated with bribery or corruption
Business ethics			HC-MS-510a.2	Description of code of ethics governing interactions with health care professionals	Responsibility , Integrity Code for Interactions with Healthcare Professionals and Government Officials
Other	Activity metrics	Activity metrics	HC-MS-000.A	Number of units sold by product category	Not currently disclosed
Supplemental SICS industry: biotech & pharma					
Human capital	Employee engagement, diversity & inclusion	Employee recruitment, development & retention	HC-BP-330a.1	Discussion of talent recruitment and retention efforts for scientists and R&D personnel	People , Appendix
		Employee recruitment, development & retention	HC-BP-330a.2	1) Voluntary and 2) involuntary turnover rate for a) executive/senior managers b) mid-level managers c) professionals d) all others	Appendix
Supplemental SICS industry: software & IT services					
Human capital	Employee engagement, diversity & inclusion	Recruiting & managing a global, diverse & skilled workforce	TC-SI-330a.3	Percentage of gender and racial/ethnic group representation for 1) management 2) technical staff 3) all other employees	People , Appendix

Task force on climate-related financial disclosures (TCFD) index

TCFD voluntary climate-related disclosure recommendations have been used to guide our reporting. We believe addressing climate change is key to achieving a sustainable, just, and resilient future for all. We are committed to transparency and will continue to share progress in our annual CSR Report and [CDP submissions](#).

TCFD disclosure element		Illumina response	
Governance: Describe organization's governance around climate-related risks and opportunities			
1	Governance		
1.1	Board oversight	The Illumina CEO is a member of the Board of Directors (Board) and is responsible for directing all aspects of company strategy, planning, and operations. Climate-related issues and projects associated with the reduction of our environmental footprint are reviewed at least annually by the full Board and can be escalated to the Board through Illumina's CEO and the CEO's direct reports. Each direct report manages responsibilities associated with their functional area.	In addition to the full Board oversight, the remit of the Nominating/Corporate Governance Committee assists the Board in overseeing the company's material environmental, social, and governance matters, except as specifically delegated to another Board committee.
		The Board provides oversight to the CSR program covering environmental, social, and governance topics, including climate-related issues. The Board receives updates at least annually on current performance and future strategic plans, with additional updates provided if material changes occur.	The Compensation Committee continues to oversee and provide input to management on diversity and inclusion matters, and the Audit Committee continues to oversee cybersecurity.
		The Board provides oversight, guidance and direction on CSR risk and opportunities that have potential impact on reputation and long-term economic viability, including climate action.	We govern CSR at the highest level with oversight from the full Board of Directors. This strong leadership supports the management of material environmental, social, and governance issues, including climate action, diversity, equity and inclusion, human rights, cybersecurity, and ethical, responsible business practices.
1.2	Management role	The Executive CSR Steering Committee comprises a team of senior leaders from across the organization, including the General Counsel, Chief of Global Operations, Chief People Officer, Chief Technology Officer, Chief Marketing Officer, Global Head of CSR, and VP of Investor Relations. The CSR Executive Committee has overall responsibility for reviewing company activities related to CSR, including climate change programs. The CSR Executive Committee sets the strategy for environmental sustainability including establishing reduction targets and monitoring annual	progress. A council of leaders from each CSR strategic focus area report to the CSR Executive Committee on a regular basis with progress updates. Reports to the broader CEO staff are scheduled as needed to provide updates on status regarding CSR elements including environmental matters. On at least an annual basis, updates on CSR projects are provided to the full Board of Directors and the Nominating/Corporate Governance Committee.

TCFD disclosure element		Illumina response	
Strategy: Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.			
2	Strategy		
2.1	Climate risk and opportunities timeline	Short (0–5 years) To ensure we hit critical milestones on our path to net-zero, we created short-, medium-, and long-term targets. These climate commitments include Science Based Targets initiative (SBTi) verified targets aligned to the 1.5 °C pathway. Our short term target outlines a 4% annual reduction in Scope 1, 2 and 3 emissions on our path towards 46% Scope 1, 2 and 3 emissions reduction by 2030. Under the recommendations of SBTi Net-Zero Standard, companies should go beyond their near- and long-term science-based targets to further mitigate climate change by undertaking actions or making investments that generate additional co-benefits for people and nature. To further facilitate beyond value chain mitigation, Illumina has invested in Nature Based Green-e Certified Carbon Credits while on our journey to net zero. We have applied carbon offsets for our natural gas scope 1 as a temporary mitigation. This enabled us to reach carbon neutrality in our direct operations (Scope 1 & 2) for 2022 and 2023. Environmental performance metrics are monitored consistently and reported quarterly. Functional groups establish projects to meet these short-term goals. Energy or carbon reduction projects are reported at project scoping level with expected impacts and timeline for returns on investment. Medium (5–8 years) Illumina has established a Climate Action Plan to prioritize the implementation of sustainable solutions in our facilities and products, as well as across our supply and value chain. We expanded our 2030 climate action targets to minimize risk associated with climate change, build resilience, and identify opportunities for long-term sustainable growth.	Illumina commits to reducing absolute Scope 1 and 2 GHG emissions 46% by 2030 from a 2019 base year. We also commit to increase annual sourcing of renewable electricity from 0.6% in 2019 to 100% by 2030. We further commit to reducing absolute scope 3 GHG emissions from the most material categories of purchased goods and services, capital goods, upstream transportation and distribution, business travel, employee commuting and investments 46% by 2030 from a 2019 base year. These targets are aligned to a 1.5 °C climate ambition and externally verified by SBTi. Long term targets are aligned with UN Sustainable Development Goals (SDG) 2030 timeline and science-based emission reduction approach result in functional group projects and goals for shorter term timeline. Long (8–28 years) With our commitment to responsible and sustainable practices, we have established targets to prioritize the implementation of sustainable solutions in our facilities and products, as well as across our supply and value chain. We set a long-term target of net-zero emissions by 2050 across our operations and value chain (Scopes 1, 2 and 3). This target has been verified by SBTi and is aligned with the most aggressive climate action goals of keeping global warming to 1.5 °C. On the path to net-zero, our milestone targets for 2030 will ensure we hit critical milestones. These targets have been verified by SBTi and include: 46% absolute reduction in Scope 1, 2 and 3 emissions; and 100% renewable electricity. We have also committed to 90% landfill diversion and 10% reduction in water intensity at core sites.
2.2	Climate risk and opportunities impact	Illumina defines a substantive financial or strategic impact as one with a potential financial impact greater than 5% of revenue impact. This could be the result of business interruption due to climate related risk or business operational impact. Additional factors considered include the climate related risk that would cause a business interruption and exposure to critical operations.	To understand the potential risks and opportunities of climate change, Illumina conducted an assessment using the recommendations of the TCFD. The assessment measured impact utilizing the following definitions: · Low Impact- Ability to absorb financial, operational, and reputational impact. · Moderate Impact - Some impact to finances, operations, and reputation. · High Impact- Substantive financial, operational, strategic, and reputational impact.
2.3	Targets to manage climate risk and opportunities	The climate change elements that have most influenced our strategy are physical risk to operations, supply chain impact, and reputation. These risks have been incorporated into business continuity planning, future product development, redundancy in supply chain where possible, and site selection for future growth. We are actively reviewing opportunities to further integrate climate into our processes and path to further expand resilience. Examples of incorporation include: targets to align with the UN SDGs and utilize the SBTi methodology for a well below 2°C scenario (2DS); holistic goals of reducing the environmental footprint of our products throughout the life cycle; incorporation of Design for Environment into our new product design; and addition of a new logistics location to our network on the east coast resulting in cost savings, improved supply chain planning, and a reduction of air emissions. In 2020, we evaluated three 2030 climate scenarios linked to global warming by 2100. Our goal was to better understand the implications of climate change for our business and identify opportunities to build resilience. Climate scenario analysis was completed using three plausible narrative future representations of our operating environment respectively aligned to a well below 2°C, a 3°C , and a 4°C level of warming. To map assumptions for each trajectory, we utilized standardized third-party climate modeling data, such as the Shared Socioeconomic Pathways (SSPs) and the Intergovernmental Panel on Climate Change (IPCC) Representative Concentration Pathways (RCP). Under the 4°C scenario, global warming reaches 4°C by 2100, relative to pre-industrial temperatures. In 2030, we assume a geopolitically fragmented world with limited flows of goods or knowledge, and a challenging economic situation, worsened by disinformation and general mistrust. Limited action on climate policy will be taken and a doubling down on fossil-based energy sources will result. More frequent climate-related weather events impact most regions by 2030. This scenario utilizes data from RCP 8.5 and SSP 3 (high challenges to mitigation and adaptation).	Under the 3°C scenario, we assume a world in 2030 facing a slow global economy with fraught geopolitical alliances. Accelerating automation with uneven benefits leads to a focus on inequality. Society is slow to react to climate impacts, distracted by larger economic concerns. Carbon emissions have started to decline slightly: energy efficiency and renewable gains are easily offset by increased use of energy-intensive tech. This scenario causes some physical climate impacts by 2030. This model utilizes data from RCP 6.0 and SSP 4 (low challenges to mitigation, high challenges to adaptation). Under the well below 2°C scenario, we assume a world in which global cooperation leads to economic recovery that fully embraces the low-carbon transition, with strong climate policy and regulatory action. Some severe climate impacts felt spur coordinated risk-containment efforts. While some physical impacts are already locked in, the pace of change slows and by 2050 the world is on a well below 2°C trajectory. This model utilizes data from RCP 2.6 and SSP 1 (low challenges to mitigation/adaptation). The scenarios were reviewed in a cross-functional workshop that included key stakeholders across various business units. The implications for each scenario were discussed and participants identified risk and opportunity hot spots to help direct further integration of resilience planning and embed climate into our developing enterprise risk management program. We will be utilizing the climate scenario insights to expand influence on our climate planning evolution and business continuity plans.

TCFD disclosure element		Illumina response	
Risk Management: Disclose how the organization identifies, assesses, and manages climate-related risks.			
3	Risk management		
3.1	Process to identify climate risk	To understand the potential risks and opportunities of climate change, we conducted an assessment in 2020 using the recommendations of the TCFD. We evaluated three 2030 climate scenarios linked to global warming by 2100. Our goal was to better understand the implications of climate change for our business and identify opportunities to build resilience. Climate scenario analysis was completed using three plausible narrative future representations of our operating environment respectively aligned to a well below 2°C, a 3°C , and a 4°C level of warming. To map assumptions for each trajectory, we utilized standardized third-party climate modelling data, such as the Shared Socioeconomic Pathways (SSPs) and the Intergovernmental Panel on Climate Change (IPCC) Representative Concentration Pathways (RCP).	and increasing annual sourcing of renewable electricity from 0.6% in 2019 to 100% by 2030. To address our Scope 3 emissions, we are working with each functional group on projects to continue to drive down the value chain impact. Initial projects and sample initiatives include updates to our investment policy, communication campaign to our supplier base, supplier mapping optimization, expanding green travel policy, and shifting purchased goods from air to ocean freight wherever possible. Illumina has created a 2030 target for 100% of strategic suppliers to have a commitment to reduce their environmental footprint. Additionally, the emissions associated with our investments accounted for 10% of the impact in our value chain in our 2019 baseline study and was one of the top five areas contributing to our Scope 3 greenhouse gas inventory. Following review of the Scope 3 data, we modified our investments policy to eliminate investing in Energy and Utilities sector bonds unless the associated issuance is identified as a Green, Social or Sustainability (GSS) Bond.
3.2	Process to manage climate risk	To identify and manage climate-related issues, Illumina is integrating climate impact into our existing risk management structure using the Environment, Health & Safety team management system, the CSR materiality assessment, business continuity program management, supply chain risk reviews, and internal audit risk program. As our enterprise risk management program evolves, we plan to integrate climate as a key component. The climate change elements that have most influenced our strategy are physical risk to operations, supply chain impact, and reputation. These risks have been incorporated into business continuity planning, future product development, redundancy in supply chain where possible, and site selection for future growth. We are actively reviewing opportunities to further integrate climate into our processes and path to further expand resilience. Examples of incorporation include: targets to align with the UN SDG and utilization of the SBTi methodology for a well below 1.5°C scenario; holistic goals of reducing the environmental footprint of our products throughout the life cycle; incorporation of Design for Environment into our new product design; improved supply chain planning; and a reduction of air emissions.	In 2022 we received approval from SBTi on our long-term target to reach net-zero GHG emissions across our direct operations and our value chain by 2050 from a 2019 base year. Additional processes for identifying, assessing, and responding to climate-related risks and opportunities have been developed. We utilize our enterprise risk management program, emergency preparedness & response program, our environmental management system, and our business continuity program to leverage existing workflows. We review the environmental management system framework annually as part of the global aspect and impacts clause. Output from this data influences environmental performance and GHG reduction objectives. Illumina also uses our ISO14001 environmental management system as one of the mechanisms to monitor and reduce our environmental impacts from GHG emissions.
3.3	Process to integrate climate risk in overall risk management	We have implemented redundant planning and maintained safety stock to provide resilience during severe weather events. For financial planning, we include risk and opportunities evaluated through our standard budget planning. Investment in energy-reduction projects that require capital expenditures are evaluated through the Capital Committee planning process. Potential indirect cost associated with supply chain, future tax, or increased operating costs from extreme weather would connect with these internal workstreams. In early 2021, Illumina launched our first Scope 3 emission inventory assessment across all relevant categories for our value chain. Of the fifteen categories assessed, we selected the most material categories contributing to our emission inventory that represented 7% or more were defined as material and account for 92% of our total Scope 3 footprint. These categories include, upstream transportation and distribution, purchased goods and services, capital goods be the focus of our reduction efforts, investments, business travel, employee commuting. In September of 2021, we successfully received verification from SBTi on our emission reduction approach aligned to a 1.5 °C pathway. Our verified targets include reducing absolute Scope 1, 2 and Scope 3 emissions 46% by 2030 compared to 2019	The EHS team monitors legislation related to climate change and general environmental regulations at the global, regional, country, and local level. Supply chain data is reviewed through data collection during the RFP process, new supplier onboarding, and regular supplier reviews. Input from government affairs, EHS, regulatory, and compliance teams is also incorporated to overall risk culture and various workstream assessments. Addressing risk at the site level is performed by our site emergency management cross functional group which plan for and react to immediate and near-term physical risks caused by climate change. The following definitions apply to our assessment: · Time Horizon: Short (0–5 years), Medium (5–8 years), Long (8–28 years) · Likelihood: Not likely, As likely as not, More likely than not, Likely, Virtually certain · Impact: Low (ability to absorb financial, operational, reputational impact), Moderate (some impact to finances, operations, reputation), High (substantive financial, operational, strategic, reputational impact).



Sam, director of public relations, sharing the power of genomics to the next generation of changemakers in China.

Disclosures

This report may contain forward-looking statements that involve risks and uncertainties. Among the important factors to which our business is subject that could cause actual results to differ materially from those in any forward-looking statements are: (i) changes in the rate of growth in the markets we serve; (ii) the volume, timing and mix of customer orders among our products and services; (iii) our ability to adjust our operating expenses to align with our revenue expectations; (iv) our ability to manufacture robust instrumentation and consumables; (v) the success of products and services competitive with our own; (vi) challenges inherent in developing, manufacturing, and launching new products and services, including expanding or modifying manufacturing operations and reliance on third-party suppliers for critical components; (vii) the impact of recently launched or pre-announced products and services on existing products and services; (viii) our ability to modify our business strategies to accomplish our desired operational goals; (ix) our ability to realize the anticipated benefits from prior or future actions to streamline and improve our R&D processes, reduce our operating expenses and maximize our revenue growth; (x) our ability to further develop and commercialize our instruments, consumables, and products; (xi) to deploy new products, services, and applications, and to expand the markets for our technology platforms; (xii) the risks and costs associated with our ongoing inability to integrate GRAIL due to the transitional measures imposed on us by the European Commission as a result of their prohibition of our acquisition of GRAIL and orders issued by the European Commission and the Federal Trade Commission requiring that we divest GRAIL; (xiii) the risks and costs associated with the expected divestment of GRAIL, including the possibility that the terms on which we divest all or a portion of the assets or equity interests of GRAIL are materially worse than those on which we acquired GRAIL; (xiv) our ability to satisfy the necessary conditions to consummate the divestiture of GRAIL on a timely basis or at all, due to the requirements set by the European Commission; (xv) the risk that disruptions from the consummation of our acquisition of GRAIL and associated legal or regulatory proceedings, including appeals, or obligations will harm our business, including current plans and operations; (xvi) the risk of incurring additional fines associated with the consummation of our acquisition of GRAIL; (xvii) our ability to obtain approval by third-party payors to reimburse patients for our products; (xviii) our ability to obtain regulatory clearance for our products from government agencies; (xix) our ability to successfully partner with other companies and organizations to develop new products, expand markets, and grow our business; (xx) uncertainty, or adverse economic and business conditions, including as a result of slowing or uncertain economic growth or armed conflict; (xxi) the application of generally accepted accounting principles, which are highly complex and involve many subjective assumptions, estimates, and judgments and (xxii) legislative, regulatory and economic developments, together with other factors detailed in our filings with the Securities and Exchange Commission, including our most recent filings on Forms 10-K and 10-Q, or in information disclosed in public conference calls, the date and time of which are released beforehand. We undertake no obligation, and do not intend, to update these forward-looking statements, to review or confirm analysts' expectations, or to provide interim reports or updates.

Stay up to date on recent news, stories, and more by connecting with us.



illumina®

+1.800.809.4566 toll-free (US) +1.858.202.4566 tel

www.illumina.com

©2024 Illumina, Inc.

All rights reserved. All other names, logos, and other trademarks are the property of their respective owners.