

Genomics for Good

Illumina Corporate Social
Responsibility Report 2024



illumina®

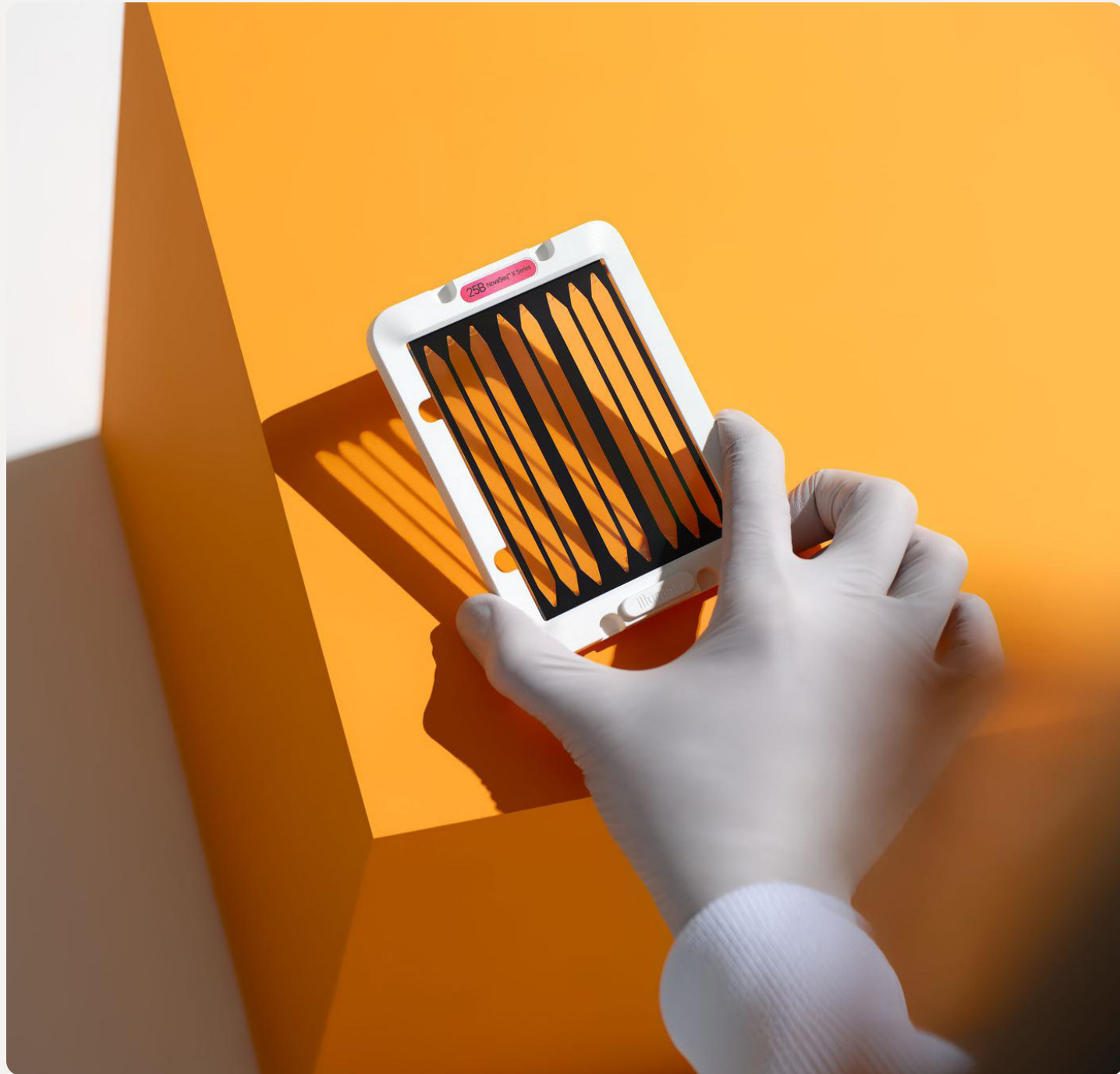


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Our sixth annual report documents the evolution and performance of our Corporate Social Responsibility (CSR) program from January 1 through December 31, 2024. To learn more about the scope of this report, see About this report in the appendix.

Message from our CEO

Every minute in the year 2024, 10 human genomes were sequenced on Illumina platforms. That statistic astounds me—and yet most people do not have access to genomics or precision medicine.

At Illumina, our strategy focuses on leading the next era of multiomic growth. That means making next-generation sequencing easy for clinicians, enabling researchers to unlock deeper biology, and using AI to transform data into valuable insights.

Beyond challenges in disease and medicine, there are also logistical and societal barriers for communities and even entire populations. For those of us at Illumina, these factors drive us not only to create greater, faster, more cost-effective instruments, but to expand our partnerships and increase our efforts in education and patient advocacy.

Our market access teams generate evidence to help increase payer coverage—in 2024, that figure reached 1.4 billion lives covered for at least one genetic test. Last year, we also announced several partnerships designed to broaden access to advanced technologies and genomic data. We expanded the Alliance for Genomic Discovery to continue funding the whole-genome sequencing of 250,000 DNA samples, which will produce more thoroughly representational data for use in drug discovery and therapeutic development.

Last fall, we launched the MiSeq i100 Series, a fast and easy-to-use benchtop sequencer that will expand access to genomics in emerging markets. Now a researcher with fewer resources in a remote



Jacob Thaysen
Chief Executive Officer

lab can install the instrument on their own and start a run that day. Perhaps best of all, compared to the original MiSeq System,* the new instrument is four times faster, requires 85% less packaging, and its consumables can be shipped and stored at room temperature, resulting in an overall 35% lower carbon footprint.† The new MiSeq i100 Series is one example of our commitment to implementing sustainable solutions, not just in our products, but in our facilities and across our value chain.

“Our strategy focuses on leading the next era of multiomic growth. That means making next-generation sequencing easy for clinicians, enabling researchers to unlock deeper biology, and using AI to transform data into valuable insights.

Jacob Thaysen, Chief Executive Officer

How CSR drives value to Illumina and its stakeholders

We are always working to provide holistic solutions to the barriers around genomics and precision medicine. With our donation of products, support, and expertise, the Africa Pathogen Genomics Initiative has now installed 22 sequencing instruments in 19 countries on the continent. We also continue to support the iHope Genetic Health program, which brought clinical genomic testing to more than 500 underserved families in eight countries.

Illumina employees are mission driven, and they are passionate about making a difference in their communities. I'm particularly proud of Illumina's culture of giving. In 2024, our employees supported more than 1300 organizations through donations and volunteerism, and we boasted our highest-ever participation rate in employee volunteering. One of the most enduring and popular activities our teams enjoy is introducing local students to genomics.

Through various programs, we have reached 2.1 million STEM learners globally since 2019.

We apply the same energy we have for educating the next generation of scientists to managing the next generation of new technologies. As pioneers in multiomics, we are committed to upholding the highest standards for genomic data privacy and cybersecurity, and we require this commitment from our suppliers as well, all of whom must adhere to our Supplier Code of Conduct. We take the utmost care in the ethical use of sequencing technologies as well as our artificial intelligence systems. Our machine learning and predictive modeling systems can fuel data insights and improve understanding of genomic variation in relation to human health. As a data-driven, science-based organization, we take great strides to reduce our environmental impact. For the third consecutive year, Illumina achieved our 2030 goal to source 100% of our global electricity from renewable sources.**

Our 2024 CSR Report outlines our strong momentum and focus. I hope you will recognize our enthusiasm for the power of genomics and understand that, while we're proud to have met so many of our stated goals, we know this is just one moment in a much greater story. Finally, I'd like to thank our customers, partners, and employees around the world for joining us in helping to improve human health for all.

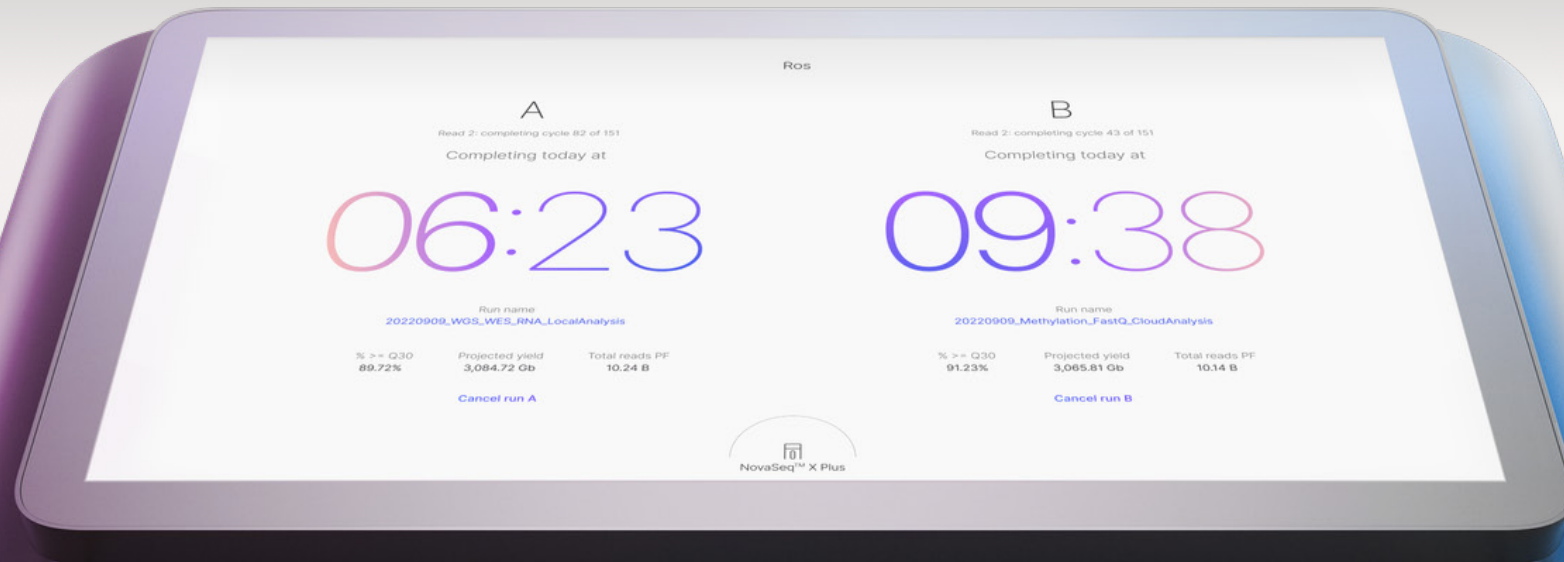
Jacob Thaysen
Chief Executive Officer

*Based on shipping weight compared to MiSeq System consumables.

†Based on comparison of MiSeq reagent kits to MiSeq i100 reagent kits per one Gb of genetic code, measured in Global Warming Potential through an internal streamline life cycle assessment (LCA) study, aligned with the methodological requirements and guidelines of the International Organization for Standardization (ISO) standards ISO 14040 (2006a) and ISO 14044 (2006b) on LCA and the Greenhouse Gas (GHG) Protocol Product Life Cycle Accounting and Report Standard (WRI/WBCSD, 2011). As a streamlined LCA study, it does not fulfill all of the reporting requirements of these standards, including third-party review.

**Through on-site generation, purchased renewable electricity, and renewable energy credits.

Our company



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- ➌ [Business strategy →](#)

The next breakthrough begins here

Together, we are unlocking the power of the genome to improve human health for all.

We are Illumina

We are leading the sequencing industry and pioneering the next frontiers of discovery and precision health.

We develop DNA sequencing and array-based life sciences technologies to enable boundless research discovery and personalized health.

Our products help pioneer advances in oncology, genetic and infectious diseases, reproductive health, and beyond.

Our technology empowers continued innovation toward positive and impactful people- and planet-healing solutions.

OUR MISSION

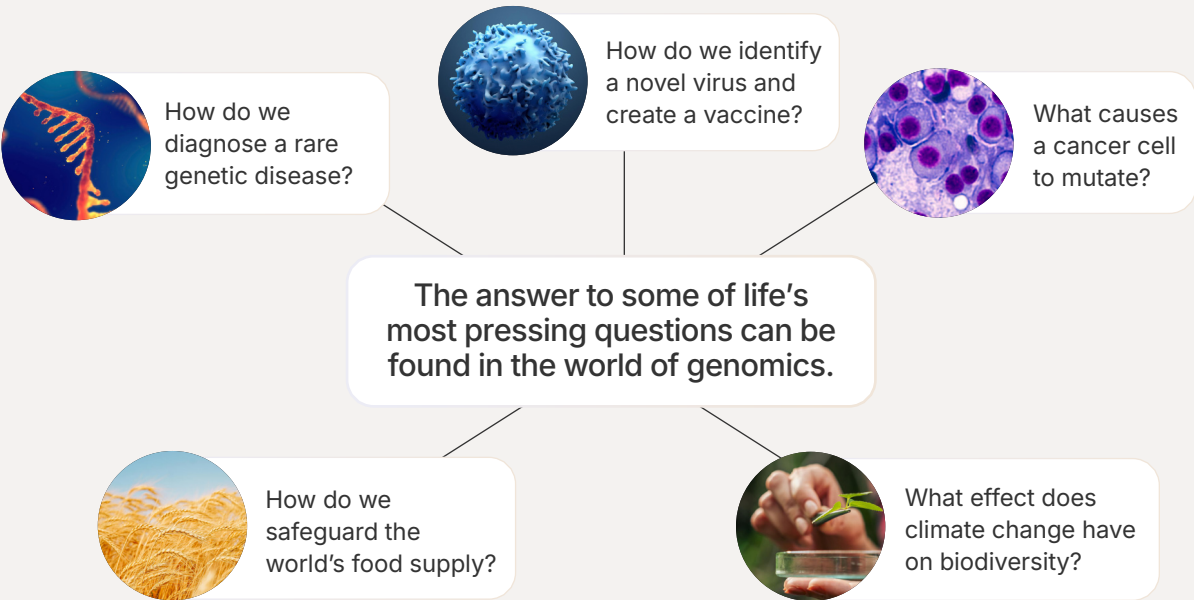
To improve human health by unlocking the power of the genome.

OUR PURPOSE

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

OUR PROMISE

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



What we stand for

Our commitment to life-changing discovery and better health is driven by our passion for continual innovation and deep collaboration. Our actions are guided by these five principles:



Expand access

Realizing the potential of the genome to save and improve lives hinges on making genomics available to all. That's why we are committed to delivering the best total cost of workflow, expanding access to advanced technology, and increasing the diversity of genomics data.



Redefine possible

We believe the genome has the potential to solve humanity's greatest challenges, and we are committed to creating a culture where innovation can thrive to achieve this. We relentlessly push the boundaries of what is possible to give our customers the integrated tools they need to turn barriers into breakthroughs.



Accelerate customer-centric advances

As the industry leader, we have a responsibility to set the standard for customer-centric innovations. By anticipating needs and delivering solutions that address real challenges, we're removing constraints and enabling researchers and clinicians to make life-changing breakthroughs and decisions.



Partner for progress

Improving health at scale requires vision and strategic partnership. We are inspired by the vision of changemakers across the ecosystem and are proud to serve as the convening force to make these visions a reality. Together, we are driving forward the adoption of genomics and broadening its impact around the world.



Act with integrity to benefit humanity

Putting people first and doing the right thing are core to who we are and what we do—from who we engage with, to how we operate, to what we bring to market. We hold ourselves to the highest standards in our actions: rooted in insights, committed to transparency, and connected by a dedication to genomics for good.

Business overview

ILLUMINA AT A GLANCE

1998

founding year

San Diego, CA

headquarters

~9000

employees*

~\$4.3 billion

2024 revenue

~645,000

sequencing publications*

~9300

patents worldwide*

>22,000

active installed base*

165+

countries receive our products*

*as of FY24

WHERE WE OPERATE



United States
San Diego (Headquarters)
Foster City
Hayward
Baltimore
Madison
Brazil
São Paulo
United Kingdom
Cambridge
Austria
Vienna
Belgium
Mechelen
Brussels

France
Évry
Rennes
Germany
Berlin
Italy
Milan
Israel
Tel Aviv
Netherlands
Eindhoven
Turkey
Istanbul
United Arab Emirates
Dubai

India
Bengaluru
China
Beijing
Shanghai
Nanjing
Guangzhou
Hangzhou
Taipei City
Japan
Tokyo
Osaka
Singapore
Australia
Melbourne
South Korea
Seoul

SEQUENCING SYSTEMS

Next-generation sequencing (NGS) is revolutionizing research, enabling experiments that weren't possible before. Illumina offers a range of innovative NGS platforms that deliver exceptional data quality and accuracy, at a massive scale.

HIGH-THROUGHPUT



NovaSeq™ X Series

NovaSeq™ 6000

MID-THROUGHPUT



NextSeq™ 1000
NextSeq™ 2000

NextSeq™ 550

NextSeq™ 500

LOW-THROUGHPUT



MiSeq™ i100 Series

iSeq™ 100

MiniSeq™

MiSeq™

DIAGNOSTIC



NovaSeq™ 6000Dx

NextSeq™ 550Dx

MiSeq™ Dx

Strategy 2027: Forward Together. Progress for All.

With Strategy 2027, we are pioneering the next era of omics with the most innovative, accessible, and complete solutions for researchers and clinicians around the world to transform biology and embed sequencing in health care.

We are reinventing the genome to deliver an unparalleled, more complete understanding with complete multiomic solutions along with data and AI to unlock deeper biological insights.

We are partnering across our global ecosystem to help our customers access the best capabilities across the industry to make their breakthroughs possible.

We are openly engaging our customers in our innovations and centering their needs in every innovation, partnership, and solution to differentiate from competition and offer the most transformative omic capabilities.


Where we are going

Unlocking the secrets of our cells and genes is transforming every facet of health, and making the genome era a reality. We see a future where "sick care" truly becomes health care. Where breakthroughs transform how we understand biology. Where improving health through the power of the genome becomes routine.


And we see Illumina as a central force catalyzing that future.

We're taking our innovative spirit farther than ever before, unleashing it beyond the technology we build and embedding it into everything we do—the services we provide, the insights we deliver, the ways we work, and the partnerships we foster.


Our vision for 2030




Whole genome sequencing is the clinical standard of care for diagnostics—routinely adopted in hospitals around the world



Scientists adopt multiomics at scale—catalyzing deeper biology and scientific breakthroughs



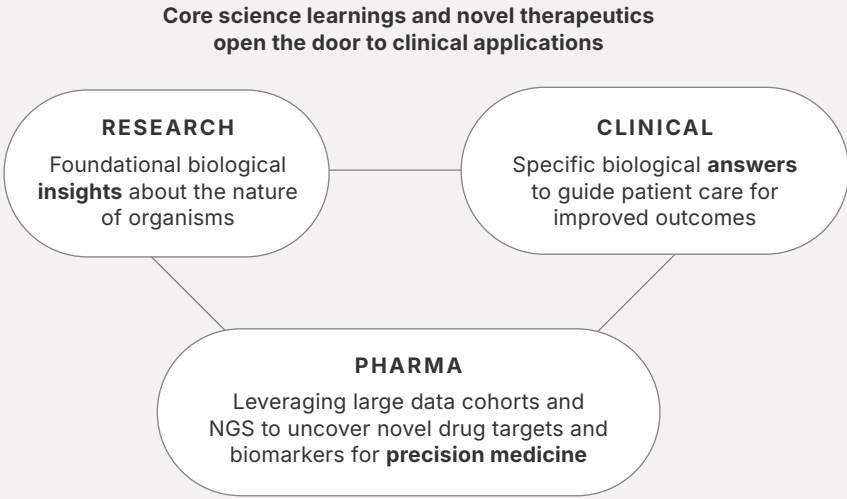
National health systems move from "sick care" to personalized health care—broadly adopting NGS across health care systems



Pharma accelerates drug discovery and precision medicine—leveraging AI-powered large cohort analysis

We serve distinct customer segments that reinforce one another

Our foundational aspiration is to enable the global omics ecosystem with high-resolution, high-intensity sequencing applications and deep insights. Beyond this, we are focused on supporting assays that will make omics the standard of care across our lifetime journey. Discoveries are made and care is transformed when visionary people around the world have the full power of omic information at their fingertips, and we are relentless in our effort to unlock that power for each customer segment we support.



Our 2027 strategy

With Strategy 2027, we're building the innovations, partnerships, and solutions to deliver the highest quality biological insights at the lowest end-to-end cost to the researchers and clinicians who are transforming human health globally.

Whole genome
Reinvent the genome

Multomics
Unlock deeper biology

Clinical
Make NGS easy

Software and AI
Transform data into insights

ENABLERS

✓ Make customers heroes
✓ Partner for innovation
✓ Differentiate from competition

PINNACLE

Comprehensive execution program to build, implement, and track all key strategic initiatives

HIGH-RESOLUTION, HIGH-THROUGHPUT SEQUENCING TECHNOLOGY

CSR governance and strategy

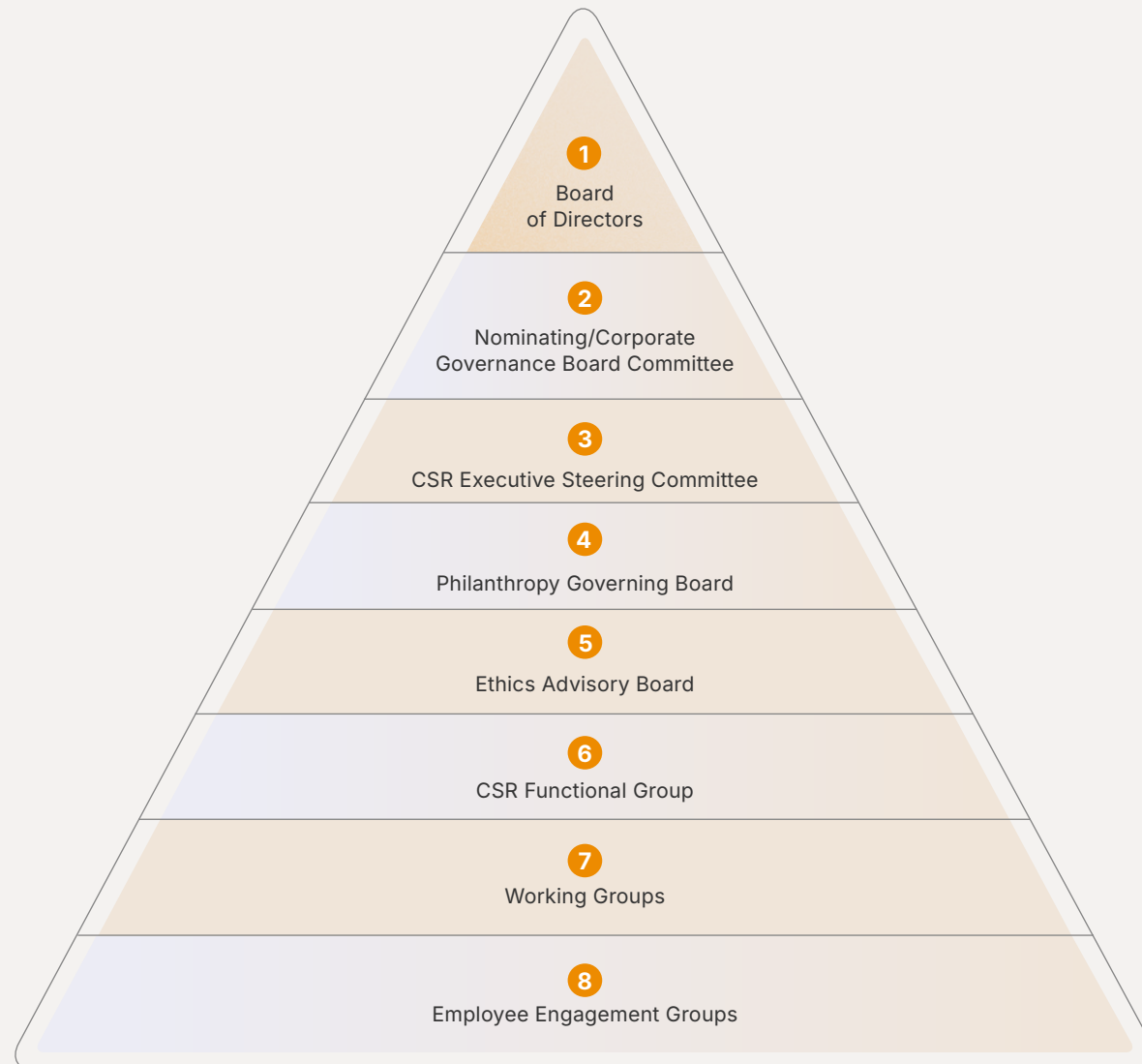
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- ➎ Progress on our 2030 targets →



CSR governance

Management of CSR performance 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.
- 3 **The CSR Executive Steering Committee** provides guidance on CSR strategic plans and practices, approves major programs, and monitors progress toward targets. It is comprised of our [management team](#).
- 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 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 genomics industry. We meet with the Ethics Advisory Board quarterly.
- 6 The **CSR Functional Group** is responsible for strategy development, program implementation, and CSR reporting, focusing on long-term value creation and risk mitigation.
- 7 **Supporting CSR Working Groups:**
 - EHS Steering Committee
 - Quality Council
 - Sustainable Product Core Team
 - Privacy Steering Committee
- 8 **Employee Engagement Groups:**
 - Sustainability green teams
 - Illumina Cares volunteer ambassadors
 - Employee resource groups (ERGs)

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

Materiality and stakeholder engagement

We prioritize action on our most material* CSR issues, supported by robust governance, transparency, and accountability. Through managing the risks and opportunities related to each material CSR issue, we execute on our mission and deliver positive impact to our business, our stakeholders, and the planet. In this report, we outline our management approach, targets, policies, and/or performance for each of our material CSR topics.

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 could have a potential impact on external stakeholders, society, and the environment.

Our reporting efforts align with the leading frameworks and external benchmarking tools.



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

ENGAGING OUR STAKEHOLDERS

We routinely gather feedback on CSR topics from our stakeholders and work to create an open dialogue. We are committed to operating with transparency to develop trusted relationships with all our stakeholders.

Stakeholders	How we engage
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.
Investors	Investor Days, virtual investor events, quarterly and annual reports, regular meetings, and communication via phone, email, and dedicated microsite.
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.
Employees	We engage and communicate with our employees via regular surveys, virtual and in-person company meetings, email, internal events, performance reviews, trainings, ERGs, recognition, and other internal communication platforms.
Suppliers	We engage with suppliers through tenders, training, summits, surveys, meetings, and questionnaires. Learn more.
Health care providers	We aim to increase genomic literacy by engaging health care professionals through education, roundtables, conferences, and meetings.
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.
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.
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.

*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: recruitment, development, engagement, safety, and wellness.

CSR strategy

Governed by our Board of Directors and guided by the input of our stakeholders, our CSR strategy is integrated into our business strategy and promotes the sustainable stewardship of the company. It provides a clear approach to how we manage risks and opportunities for long-term value. Our CSR strategy takes shape across four focus areas, each with respective objectives for how we create value:

Accelerate access to genomics – Realizing the potential of the genome to save and improve lives hinges on making genomics available to all. That’s why we are committed to delivering the best total cost of workflow, expanding access to advanced technology, and increasing the diversity of genomics data.

KEY OBJECTIVES

- Be the engine of genomic innovation
- Drive down the total cost of sequencing
- Increase the accessibility of genomics

Nurture our people and communities – Our extraordinary mission requires extraordinary people and leaders at every level. 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. Together our impact is amplified, and our potential is unlimited.

KEY OBJECTIVES

- Invest in our people
- Support employee health, well-being, and safety
- Engage our employees and communities

Integrate sustainability – 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. We also empower our customers to unlock innovative solutions to the planet’s most pressing issues through genomics.

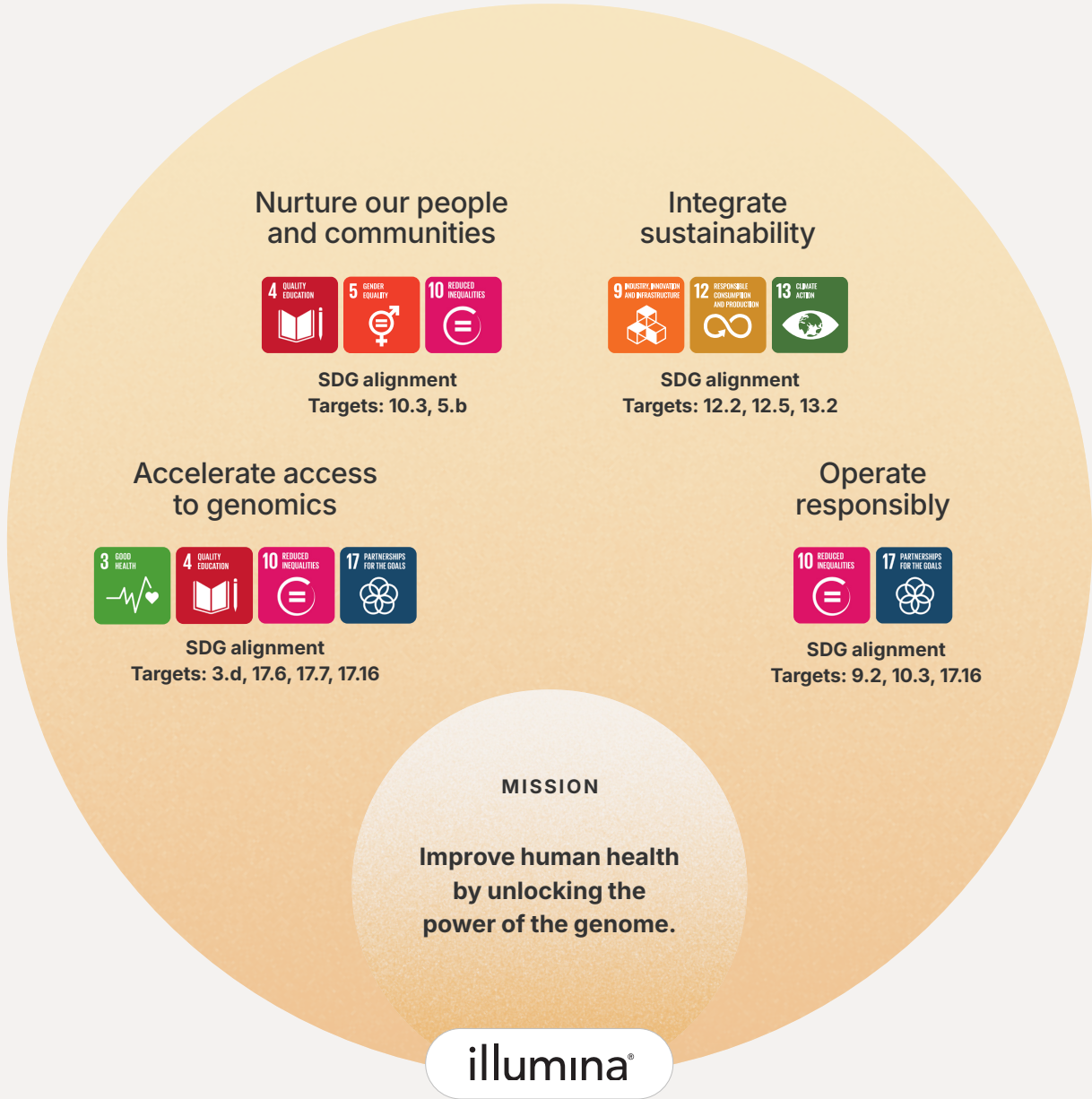
KEY OBJECTIVES

- Drive climate action across our value chain
- Operate sustainable facilities
- Develop sustainable products
- Leverage genomics for sustainable applications

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

KEY OBJECTIVES

- 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



Progress on our key objectives and 2030 targets

Our focus areas	Objectives	2030 Targets	2024 progress on targets and objectives
Accelerate access to genomics	<div><div>1</div>Be the engine of genomic innovation</div> <div><div>2</div>Drive down the total cost of sequencing</div> <div><div>3</div>Increase the accessibility of genomics</div>	<div><div></div>Reach 5 million STEM learners</div>	<div>2.1 million STEM learners reached from 2019 baseline</div> <div>1.4 billion lives covered for genomic testing as of FY24</div> <div>>22,000 active installed base as of FY24</div> <div>~9300 patents worldwide as of FY24</div> <div>Launched the new MiSeq i100 Series. Learn more and see other 2024 innovations</div>
Nurture our people and communities	<div><div>1</div>Invest in our people</div> <div><div>2</div>Support employee health, safety, and well-being</div> <div><div>3</div>Engage our employees and communities</div>	<div><div>✓</div>Maintain zero net pay gap</div> <div><div></div>Reduce recordable injury and illness rate</div> <div><div></div>Donate 100,000+ volunteer hours</div> <div><div>✓</div>Achieve 50% employee participation in giving and volunteering</div>	<div>Maintained for sixth consecutive year</div> <div>38% decrease from 2019 baseline</div> <div>91,370 volunteer hours donated from 2019 baseline</div> <div>52% employee participation</div>
Integrate sustainability	<div><div>1</div>Drive climate action across our value chain</div> <div><div>2</div>Operate sustainable facilities</div> <div><div>3</div>Develop sustainable products</div> <div><div>4</div>Leverage genomics for sustainability applications</div>	<div><div></div>Deliver net zero emissions (Scope 1,2,3) by 2050</div> <div><div></div>Reduce emissions by 46% (Scope 1,2)</div> <div><div></div>Reduce emissions by 46% (Scope 3)</div> <div><div>✓</div>Achieve 100% renewable electricity</div> <div><div></div>Reach 90% landfill diversion at core sites</div> <div><div></div>Reach 10% reduction in water intensity at core sites</div> <div><div>✓</div>Reduce packaging by 75%</div>	<div>In progress</div> <div>45% decrease from 2019 baseline*</div> <div>2% decrease from 2019 baseline; 19% decrease YoY</div> <div>100% renewable electricity*</div> <div>54% landfill diversion at core sites</div> <div>1.2% decrease in water intensity from 2019 baseline; 4.2% decrease YoY</div> <div>80% reduction from 2019 baseline</div>
Operate responsibly	<div><div>1</div>Practice strong corporate governance and compliance</div> <div><div>2</div>Act ethically and with integrity</div> <div><div>3</div>Uphold high standards for data security and privacy</div> <div><div>4</div>Foster a responsible supply chain</div> <div><div>5</div>Advance product quality and safety</div>	<div><div>✓</div>Ensure 100% strategic suppliers committed to reducing their environmental footprint</div> <div><div>✓</div>Achieve top industry CSR ratings</div>	<div>100% strategic suppliers committed to reducing their environmental footprint</div> <div>Top industry ratings achieved Learn more</div> <div>91% independent board</div> <div>97% of employees trained on the code of conduct</div>

Accelerate access to genomics

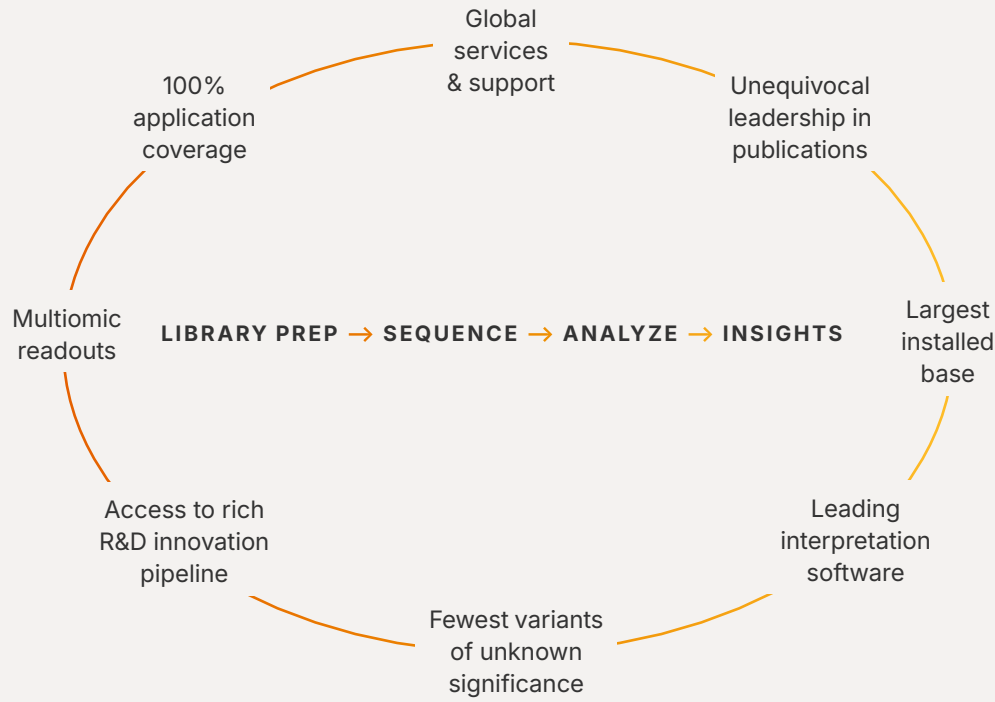
KEY OBJECTIVES

- ➊ Be the engine of genomic innovation →
- ➋ Drive down the total cost of sequencing →
- ➌ Increase the accessibility of genomics →

Continuous innovation

Every technological breakthrough that increases value, improves throughput, decreases turnaround time, and improves ease of use helps our customers unlock life-changing discoveries and better health. To ensure they are successful, our innovation is driven and shaped by what customers tell us they need.

Unmatched ecosystem of offerings drives outsized value for customers



*as of FY24

2024 innovation highlights

10

human genomes were sequenced on our platforms every minute in 2024

>22,000

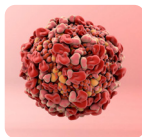
active installed base*

~645,000

sequencing publications*

~9300

patents worldwide*



TruSight Oncology Comprehensive FDA approval

The Food and Drug Administration approved *in vitro* diagnostic TruSight™ Oncology Comprehensive test and its first two companion diagnostic indications. This single test interrogates over 500 genes to profile a patient's solid tumor, helping to increase the likelihood of identifying an immuno-oncology biomarker or clinically actionable biomarkers that enable targeted therapy options or clinical trial enrollment. [Learn more](#)



Single-cell analysis and discovery

In 2024, Illumina acquired Fluent BioSciences, developer of an emerging and highly differentiated single-cell technology. Fluent's unique technology combined with Illumina's leading sequencing and informatics solutions, including Partek Flow, which enables single-cell multiomic analysis, will provide customers with a complete solution and single point of support so that researchers can advance discovery faster and more economically. [Learn more](#)

Collaborating to advance genomics

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. Illumina partnerships help advance genomics in numerous ways, from expanding access to next-generation sequencing to pioneering new applications and technologies, providing funding for innovative startups, and more. [Learn more about our partnerships](#)



Alliance for Genomic Discovery

In 2024, we [announced](#) the expansion of the [Alliance for Genomic Discovery](#) (AGD)—an effort cofounded with NashBio and Illumina in 2022 to drive diversity in genomic data. With the addition of Bristol Myers Squibb, GSK, and Novo Nordisk, AGD now includes eight pharma members cofunding whole-genome sequencing of 250,000 DNA samples, providing data for use in drug discovery and therapeutic development.



Collaboration with Janssen to advance molecular residual disease cancer test

In 2024, Illumina signed an [agreement](#) with Janssen Research & Development. This collaboration will be the first relating to the development of Illumina's novel molecular residual disease assay, a whole-genome sequencing multi-cancer research solution that detects circulating tumor DNA to better understand the persistence or recurrence of disease following clinical intervention.



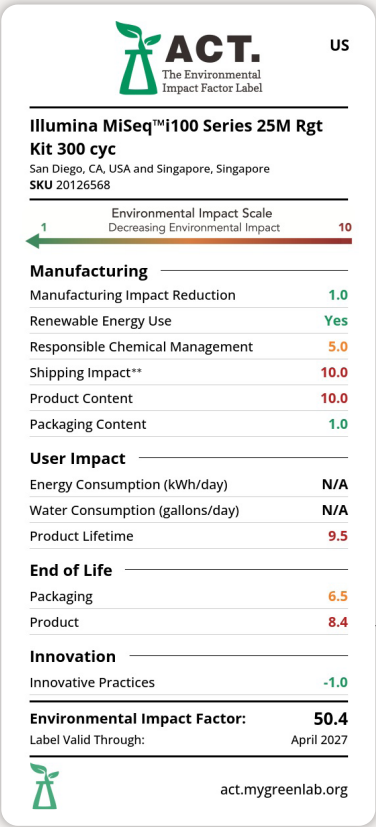
Supporting genomic startups

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.

MiSeq i100 Series

Empowering every lab everywhere

Accessible to users of all levels, the MiSeq i100 Series delivers speed, simplicity, and breakthrough sustainability advancements.



Affordability

Making genomics available to all is critical in realizing its potential to save and improve lives. That’s why we are driving down the total cost of workflow and supporting access to pathogen sequencing tools for public health in low- and middle-income countries.

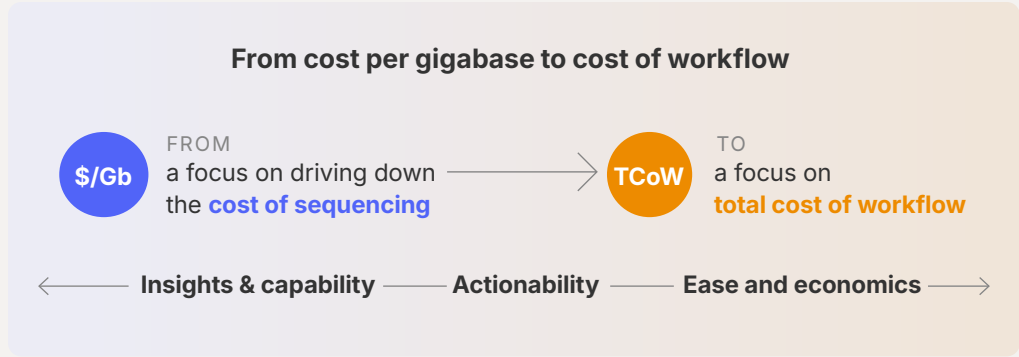
Highest quality insight for the lowest end-to-end cost

Every day, our customers are unlocking innovative ways to use our products to advance research and human health. That is why we are committed to empowering our customers with the highest quality insight for the lowest end-to-end cost of the entire workflow.

Since 2001, the cost of DNA sequencing has dropped by more than 100,000×. However, the cost per genome is only one input of the total cost of sequencing.


Affordability of the instrument or the cost per gigabase (Gb) alone is only one factor when looking at the total cost of workflow.

Total cost of workflow includes everything from setup and running expenses to ancillary equipment, ease of use, level of support/instrument uptime, data quality, training, and much more. Our approach to affordability expands beyond the cost per Gb to encompass the total workflow.



Accessibility

Increasing the accessibility of genomics and genomic sequencing can enable families, communities, and whole populations to harness the benefits of NGS. Realizing the potential of the genome requires education, advocacy, and global data that represents the diversity of our populations.



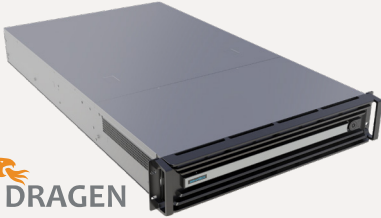
Increase genomic data diversity

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 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.

2024 initiatives

The 2024 v4.3 update to DRAGEN, Illumina’s secondary analysis software, includes pangenome reference mapping, which harnesses the power of a prebuilt pangenome derived from 128 samples across 26 ancestries, capturing more genetic diversity, reducing ancestry bias, and improving accuracy. The pangenome reference in DRAGEN compares newly read genetic sequences against other known variations in that position, drawing from sample data that better captures the spectrum of people groups across the world. [Learn more](#)



- Initiatives to increase genomic data diversity
- [Qatar Genome Program](#)
 - [Egyptian Genome Project](#)
 - [Singapore’s PRECISE-SG100K](#)
 - [Human Heredity & Health in Africa](#)
 - [New York Genome Center’s Polyethnic-1000](#)
 - [Native BioData Consortium](#)
 - [Alliance for Genomic Discovery](#)
 - [Australia’s OurDNA](#)
 - [Silent Genomes Project](#)
 - [Malaysia’s MyGenom Project](#)



Advance genomic literacy


To accelerate access to genomics, we need to accelerate awareness and adoption. To do this, we advance genomic literacy by supporting health care professionals and by driving 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 health care professionals in a variety of settings. In addition to continuing to support independent medical education grants, our team focused efforts in 2024 on peer-to-peer connections through education for community health systems, scientific publications, medical and scientific presence at conferences, and participation in professional societies.

- 2024 progress
- Continued support for high-quality education grant and sponsorship requests
 - Scientific presence at 50+ professional society annual conferences across the globe, with 45+ abstracts presented, and 35+ educational events organized for conference participants
 - 30+ publications in high-impact journals and 40+ additional virtual education events organized


Increasing the accessibility of genomics



Increase genomic data diversity



Advance genomic literacy



Champion patients

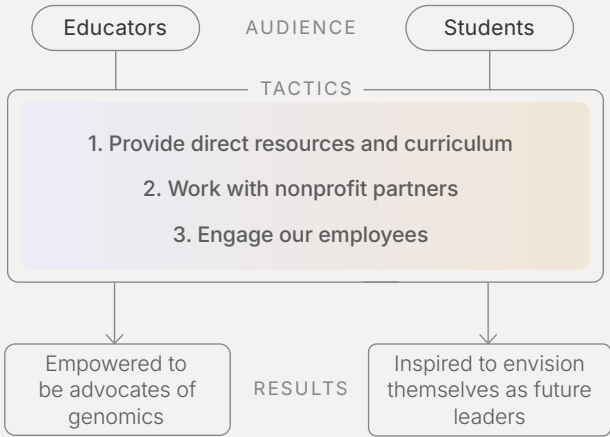


Future changemakers

The future of our mission relies on 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.

Our STEM strategy

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





Champion patients

We are proud to stand alongside the patients, families, and the organizations that represent them who are at the forefront of this genomic revolution. They are working to raise awareness of the role of genomics, to expand access by addressing barriers and promoting public policy, and are bringing stakeholders together to integrate genomics into clinical pathways in ways that give them more agency over their care, and ultimately improve well-being and outcomes. With a reputation for best practice, we collaborate with organizations across the globe to support these shared goals.

Patient access

iHope

iHope is a philanthropic effort that provides clinical whole-genome sequencing 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. Our expansion of the iHope program includes iHope Genetic Health under the auspices of the nonprofit [Genetic Alliance](#) and [iHope China with March of Dimes](#).



Pathogen Genomics Initiative (PGI)

PGI is a multisector 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. [Learn more](#)

Patients across Europe still face long diagnostic odysseys

European patients with a rare disease experience a five-year wait to get a confirmed diagnosis after symptom onset.



“We must close the gap in diagnostic services to ensure all patients, regardless of their location, condition, gender, or age, have timely access to accurate diagnoses which in turn can open the door to subsequent care pathways.”

Virginie Bros-Facer, Chief Executive Officer, EURORDIS

STUDY KEY FINDINGS:

- 1 The average rare disease patient waits half a decade for a diagnosis.
- 2 60% of rare disease patients experience a misdiagnosis.
- 3 Women with a rare disease wait an average of 5.4 years for a diagnosis, compared to 3.7 for men.
- 4 Young people, age 10-20, endure the longest diagnostic wait at 10.4 years, compared to only 0.6 years for adults over 50.
- 5 Patients referred to Centers of Excellence experience significantly shorter diagnostic odysseys.

A new study—the largest of its kind—found that, on average, it takes nearly five years for a patient with a rare disease to receive a confirmed diagnosis. Across Europe, half of the patients waited at least nine months (median), 48% waited more than one year, and a quarter waited over five years after symptom onset.

This analysis was based on data collected through the EURORDIS Rare Barometer survey initiative, which includes over 13,000 participants and is supported, in part, by Illumina Global Patient Advocacy. The study highlights the ongoing and pervasive challenges that patients and families with rare diseases face in overcoming the diagnostic odyssey, despite advances in diagnostic technologies.

Early diagnosis is critical, as it enables timely treatment and access to supportive services that can improve health outcomes and delay or reduce the onset of symptoms, impairments, and related comorbidities. For conditions without a known treatment, an early diagnosis is essential for connecting patients and families to a supportive community, which many families cite as a crucial source of help and the most effective way to mobilize efforts for expanded research and better care.

EURORDIS, a nonprofit alliance of over 1000 rare disease patient organizations from 74 countries, works to improve the lives of over 30 million people living with rare diseases in Europe.

[Learn more](#)

Supporting patients with NTRK fusion-driven cancers



Comprehensive genomic profiling (CGP)—also called biomarker testing—assesses hundreds of cancer-causing genes and relevant biomarkers to give health care providers critical insight about a patient's unique cancer. For patients with an NTRK fusion, CGP can be lifesaving because it matches them to therapies specifically designed to target this rare gene fusion.

“Our mission at the NTKRers is to empower patients and caregivers affected by NTRK fusion-driven cancers through education, support, and advocacy. Together we are fostering a well-informed community and improving outcomes for those impacted by this rare gene fusion.”


Susan Spinoso, Cofounder and President, NTKRers

The NTKRers, a patient advocacy organization, offers resources and support to people with cancer driven by NTRK fusions. We have partnered with the NTKRers to provide educational resources, focusing on topics like the diagnosis of NTRK fusions, therapeutic resistance, and monitoring disease through liquid biopsies.

[Learn more about NTKRers](#)

Patient coverage and reimbursement

Enabling innovation and driving affordability go beyond delivering sequencers and data. They include 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.



~1.4B

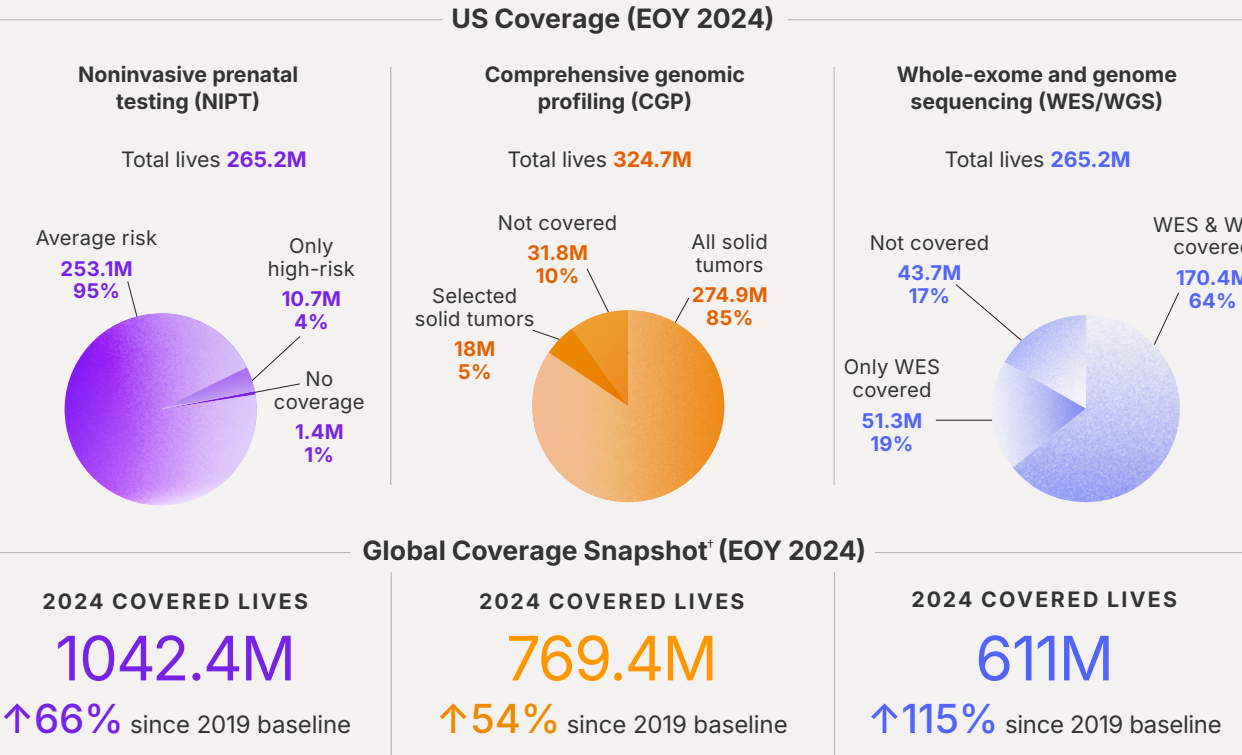
total covered in 2024*

*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 Republic, Denmark, France, Germany, Ireland, Italy, Netherlands, Spain, Sweden, UK, Israel, Japan, South Korea, Australia, China, Brazil).

Demonstrating the clinical utility of genomics internationally

Below are some strategic initiatives formed to engage health systems worldwide and demonstrate clinical and economic utility:

- **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. The [latest findings](#) released in 2024 reveal that CGP, when done early in a cancer patient’s diagnosis, leads to better personalized treatment and patient outcomes.
- **ECGP (Europe):** The European Coalition for Access to Comprehensive Genomic Profiling (ECGP) unites stakeholders to improve cancer care by expanding clinical access and reimbursement of CGP, advancing the adoption of personalized medicine. In 2024, the ECGP Steering Committee coauthored recommendations for European policymakers, set for presentation in March 2025. Meanwhile, initiatives in Italy and Spain are tackling local access barriers.
- **Optum/United Healthcare Group (United States):** This collaboration continues to generate evidence across numerous indications with jointly authored presentations and manuscripts. In 2024, we expanded activities to measure and act on provider adherence to policy through clinical quality initiatives.



Nurture our people and communities



KEY OBJECTIVES

- 1 Invest in our people →
- 2 Support employee health, safety, and well-being →
- 3 Engage our employees and communities →

Invest in our people

Building extraordinary teams and breakthrough innovations begins with putting our people’s welfare at the heart of all that we do. To improve human health on a global scale, we start by creating a workplace that centers both innovation and care.

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.



Employee resource groups (ERGs)

ERGs serve as a key lever to identify, develop, and retain talent. They enhance our culture by engaging employees and providing opportunities to connect, celebrate, and learn alongside peers.

Our ERG program pillars

BUSINESS IMPACT

Practice everyday innovation, utilizing cross-functional teams to identify and solve business challenges

CAREER DEVELOPMENT

Leverage skill-building and networking opportunities inherent in volunteer projects to develop our future leaders

COMMUNITY SERVICE

Support our communities by engaging with nonprofits where we live and work

EDUCATION

Drive deeper collaboration through targeted education and awareness events

“Through Horizons, I’ve networked with people cross-country covering different departments. I realized that we have such an amazing team who are passionate, great at what they do, and happy to help others. These people helped me to understand different cross-functional roles and now I am able to better understand how I contribute to the larger team. I’ve made connections who are helping me to develop necessary soft skills through their guidance and support.”

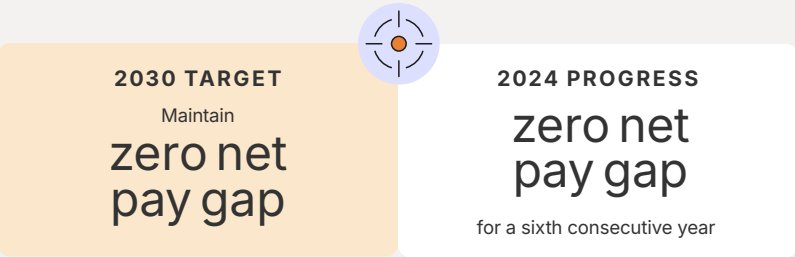
Gowtam, Scientist, Australia

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 sixth 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.



Equal opportunity and nondiscrimination policies

Illumina does not discriminate. We are committed to fair and respectful treatment of all employees, promoting equal opportunity in the workplace and in 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.

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.

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.

Employee giving and volunteer benefits*

\$500

donation match*

16 hours

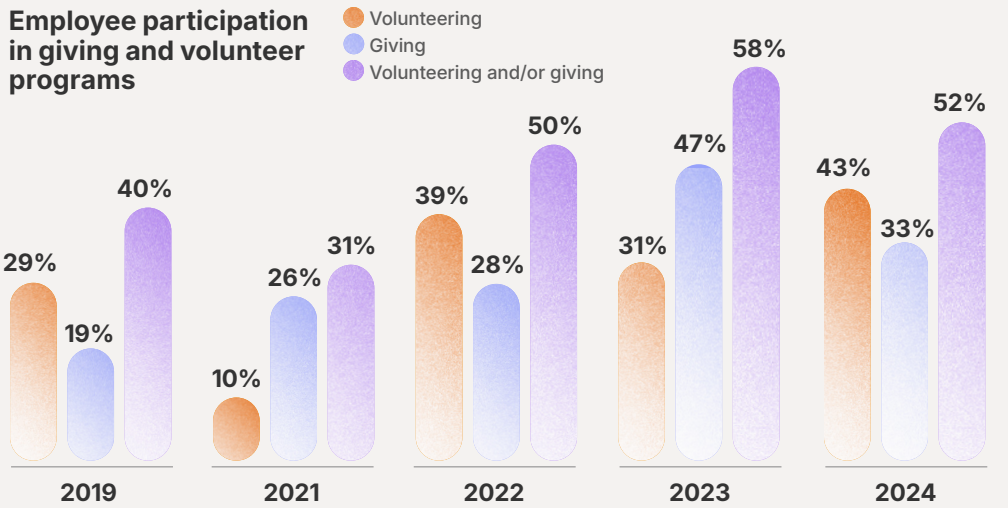
paid volunteer time off

\$25

new hire seed donation deposit*

\$10

Volunteer rewards donation earned for each hour of volunteer work*



¹Since 2019 baseline
*Donation match, new hire seed donation, and volunteer rewards are all funded by the Illumina Corporate Foundation.

2030 TARGET

Achieve

50%

employee participation in giving and volunteering

2024 PROGRESS

Achieved

52%

employee participation in giving and volunteering

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.



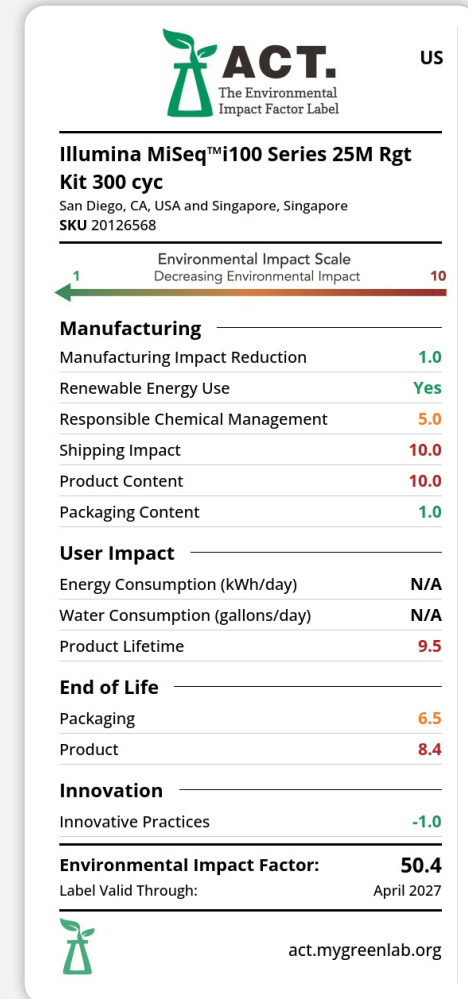
Seeing our impact (clockwise from upper left): Employees in Singapore lead a community cleanup to celebrate International Coastal Cleanup Day; the Illumina team at the Cambridge Dragon Boat Festival supports Addenbrooke's Charitable Trust; colleagues in San Diego prepare meals for patient families at Ronald McDonald House Charities; an employee gives blood at one of the many donation sites we have globally; employees get creative decorating superhero capes for oncology patients to support them during their treatment. Our dedicated volunteers are making a tangible difference around the world. In 2024 alone, employees donated more than 23,000 volunteer hours.

Integrate sustainability



KEY OBJECTIVES

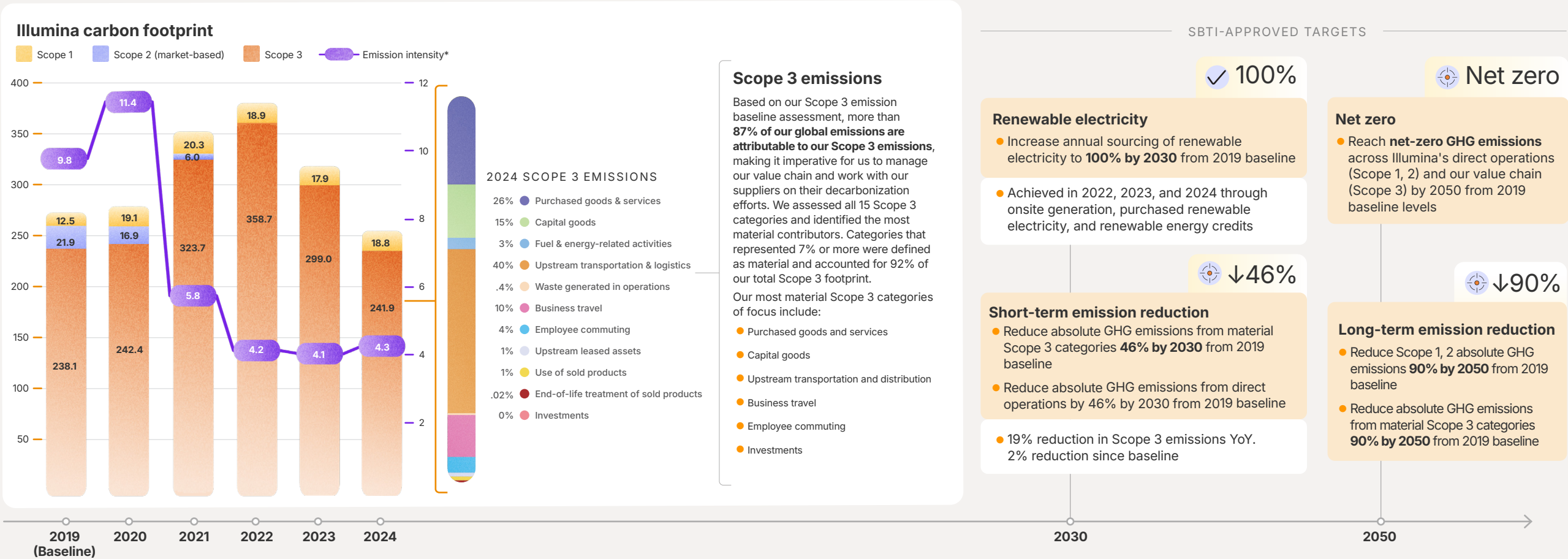
- 1 Drive climate action across our value chain →
- 2 Operate sustainable facilities →
- 3 Develop sustainable products →
- 4 Leverage genomics for sustainability applications →



Certified by My Green Lab, the MiSeq i100 Series and reagents obtained the ACT Label. The certification process assessed environmental impact across manufacturing, energy use, and end-of-life disposal. Achieving the label required meeting stringent criteria, including reduced carbon footprint and responsible material sourcing. Note that the "Shipping Impact" score is calculated solely by distance the product is shipped and does not take into account the sustainability advancements made by Illumina to reduce emissions from shipping, including ambient shipping.

Our path to a science-based net-zero emissions 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 genomics 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.



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 carbon offsets while on our journey to net zero. We have [applied carbon offsets](#) for our natural gas Scope 1 as a temporary mitigation.

Scope 3 management and reduction efforts

We recognize that our environmental footprint extends beyond our facility walls, and we work with our partners, customers, suppliers, and internal functional groups on projects to decarbonize our value chain.

● Purchased goods and services and capital goods

Through our sustainable supplier program, we assess environmental sustainability commitments made by our suppliers. Our goal is to empower and partner with our suppliers to reduce their collective carbon footprint and encourage transparent reporting on their progress. In turn, this will help us more accurately track and reduce our overall Scope 3 emissions. Learn more about our [sustainable supplier program](#).

● Upstream transportation and logistics

We have a bold program of mode shift initiatives that had 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 expanded our routes and increased our volumes for ocean freight to include Singapore to East and West Coast US ports, as well as qualifying Singapore-to-Netherlands route. In 2025, we will expand volumes from Singapore to US and the Netherlands, our highest volume shipping lanes.

● Logistics network optimization

In 2024, we increased our focus on network improvements, ensuring our products are handled and transported more efficiently. In 2025, we will add significant digital transport management capability to enable accelerated progress in this area, with our TMS (transportation management system) on track to go live May 2025.

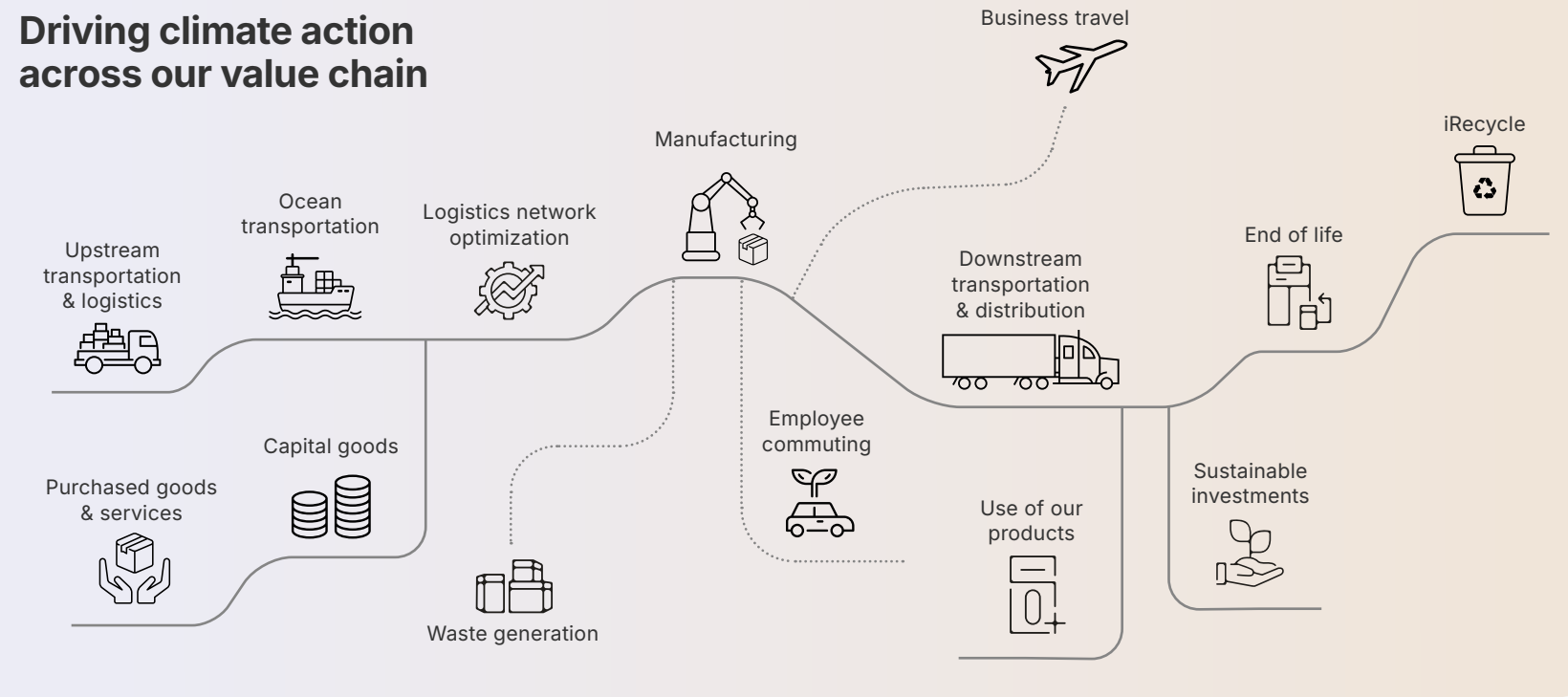
● Waste generation

We work to reduce the environmental impact of waste from our operations by keeping materials in use and minimizing the amount of waste that ends up in landfills. [Learn more](#)

● 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 most-traveled routes, in 2024, we contracted with an airline in a rebate model that drives a percentage of our spend toward 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.

Driving climate action across our value chain



● Employee commuting

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

● Downstream transportation and distribution

The breakthrough NovaSeq X Series and the newly introduced MiSeq i100 Series allow for ambient shipping and the elimination of cold-chain transportation. [Learn more about our approach to sustainable products](#)

● Use of our products

See our latest efforts on the [sustainable products page](#).

● 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.

● 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. This includes designing cartridges for easy disassembly and recycling with no tools required. See how we participate in required compliance schemes for producer responsibility to ensure proper collection, management, and disposal [here](#).

● 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 are now sorted and recycled in collaboration with key partners. The program has expanded beyond its pilot phase in Australia to include service teams in Singapore, Japan, and South Korea.

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](#).

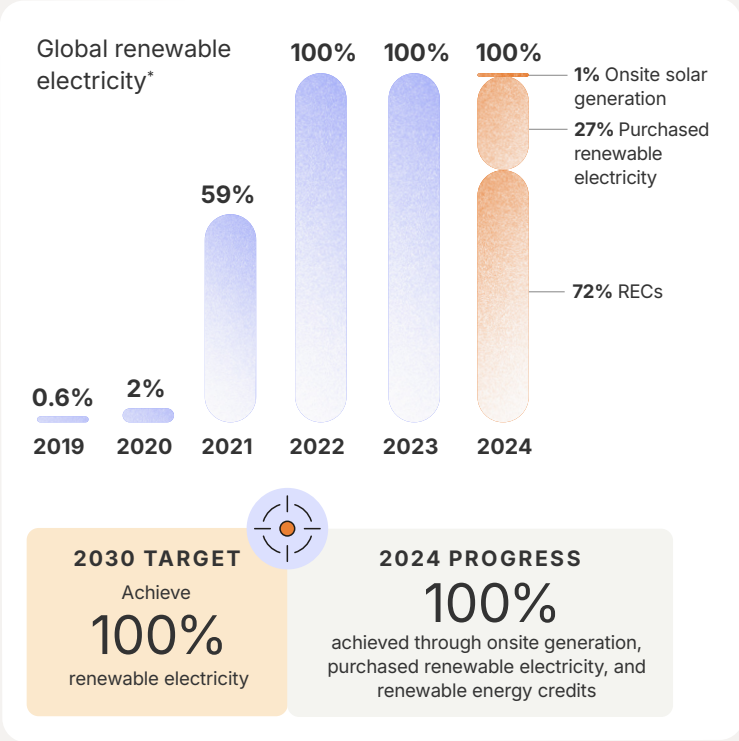
Operate sustainable facilities

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

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.

In 2022, we reached our 2030 target to source 100% electricity from renewable sources, including onsite generation, purchased renewable electricity, and renewable energy credits (RECs). While we have continued to achieve this target for 2023 and 2024, we are focused on lowering the dependency on RECs.



*Onsite generation, purchased renewable electricity, and renewable energy credits.

2024 initiatives

- LED lighting replacements** – Our San Diego and Tokyo sites initiated a project to replace fluorescent lights with more efficient LED lighting in administrative areas. When fully executed, the new lighting systems will save approximately 115,850 kWh/year.
- Equipment replacements** – Our San Diego site replaced a water-cooled chiller with a more appropriately sized system to improve central plant capacity. The new optimized system reduces an estimated 28 MTCO₂e/year. Similarly, our Singapore North Tech site aims to replace an existing low-efficiency motor with a more energy-efficient motor. The upgrade is estimated to save 37.31 MWh/year.
- Powering down** – Our San Diego site assessed equipment against operational schedules and identified power-down opportunities to reduce energy. As a result, various systems including environmental chambers, chest freezers, analyzers, etc., were switched from running 24/7 to only when in use. Power-down schedules have resulted in approximately 8.5 metric tons of CO₂e avoided annually.
- Occupancy and schedule optimizations** – Our Europe site continues to focus on scheduling and behavior change initiatives to improve efficiency and reduce consumption. This year, the teams

reduced fan power and heating demand in office spaces and reduced lab air change rates in labs when unoccupied.

- Data center controls** – Our Europe site closed off the fresh air supply to its data center to reduce demand on humidity controls, in turn improving the center's energy efficiency and lowering consumption.
- UV films for insulation** – Our China site applied UV films to glass walls to reduce UV ray penetration. The added insulation aids in energy reduction by reducing demand on heating and cooling systems, avoiding approximately 6.6 MWh of energy consumption annually.
- Temperature control with water sprinklers** – Our China site installed water sprinklers to cool down its rooftop compressor system. The new system maintains the equipment's optimal temperature, avoiding approximately 16 MWh of energy consumption annually.
- Liquid nitrogen optimization** – Our Singapore North Tech site eliminated one of its 10,000 liter liquid nitrogen tanks and consolidated usage to a single tank, reducing the amount of excess nitrogen gas purges from both tanks to just one.

ISO 14001

Our manufacturing sites in Singapore are ISO 14001:2015 certified. Other operations that are not currently ISO14000 and 45001 certified operate under these management systems with a roadmap for certification. [View a comprehensive list of our regulatory and quality certifications](#) here.

Greening our buildings and labs

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

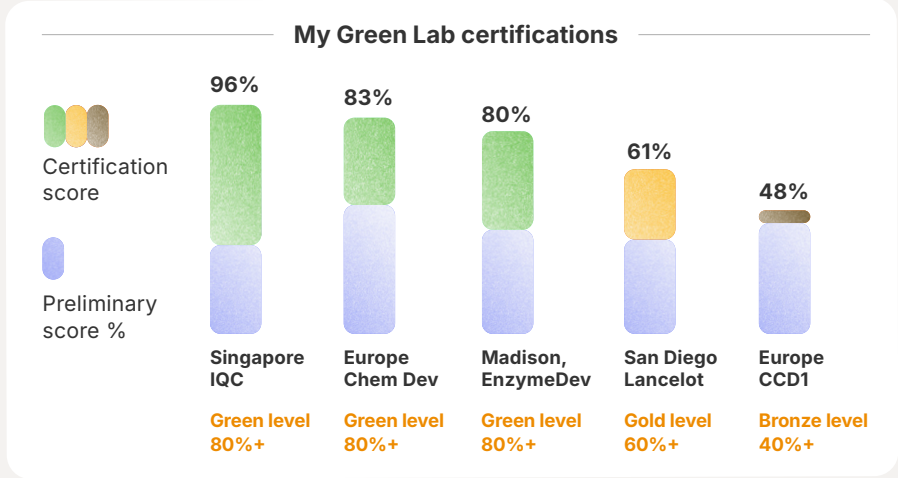
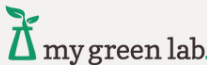


Green building design LEED certified sites

- San Diego, CA (Gold)
- Foster City, CA (Gold)
- Madison, WI (Gold)
- Beijing, China (Gold)
- Shanghai Commercial, China (Silver)
- Shanghai Manufacturing, China (Gold)
- Singapore (Gold)

My Green Lab

We have continued our partnership with [My Green Lab](#) to improve the sustainability of our laboratories around the world. In 2024, five of our labs completed the eight-month certification process by implementing recommended sustainable improvements across various areas. The labs were retested at the end of the implementation phase, and all received an increase in their scores and a certification level.



Water stewardship

At our core sites,* we employ a variety of water conservation applications and 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.



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

2024 initiatives

- **Reverse osmosis (RO) to deaerator tank** – Our Madison site switched its plant steam systems’ makeup water from softened city water to an onsite RO water system. The RO system removes 95% of supply water minerals and nearly all of the alkalinity, which greatly reduces the potential for corrosion. RO make-up water also reduces boiler blowdowns, which significantly reduces annual water consumption, saving approximately 65,000 gallons per year.
- **HVAC cooling towers soft water makeup** – Our Madison site switched its HVAC cooling system makeup from raw city water to an onsite soft water system. Soft water systems remove the hard minerals from the water that cause scaling conditions, which impact overall efficiency and equipment lifespan. Soft water also reduces the cycles of chemical concentration in the cooling towers, resulting in significant reductions. Since implementation in May, the new system has saved over 2 million gallons of water.

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

Waste management

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

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

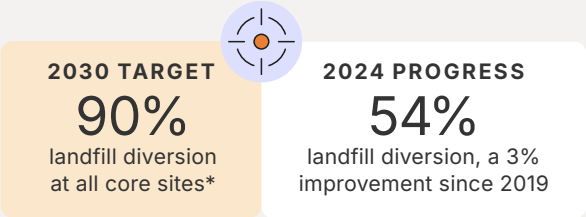
We participate in required compliance schemes for producer responsibility to ensure proper waste collection, management, and disposal. This includes the recycling of packaging, batteries, and waste electrical and electronic equipment (WEEE). Under the European Union’s Batteries and Accumulators Directive 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.

- **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 for our products and materials. We partner with e-Stewards, R2, and other certified recyclers to refurbish, rebuild, and reuse devices to help organizations around the world. Working with our recycling partners in North America, we were able to refurbish and offer 2760 individual electronic items for reuse to schools and other nonprofit organizations, diverting approximately 10,518 pounds of electronic materials.

2024 initiatives

- **Glove recycling program** – Our San Diego site was the latest site to join a program to recycle nonhazardous gloves from labs and reduce the number of nitrile and latex gloves going to landfills. San Diego now joins the flagship Madison glove recycling program, which launched in 2019 and has eliminated over 2240 pounds of gloves from their landfills.
- **Salt delivery system** – Our San Diego site installed a salt delivery system, which allows the team to fill salt brine tanks through a vacuum truck. The new delivery system eliminates the use of 50-pound plastic bags that were previously used to deliver the salt, saving over 100 plastic bags per month from going to the landfill.
- **Cafeteria container reductions** – Our San Diego site ran a pilot program that offered a \$0.75 discount to employees who chose reusable eco-containers and tableware versus cardboard to-go boxes. During the 30-day pilot, over 3000 discounts were issued, reducing

- waste from the alternative cardboard boxes. The San Diego deli also replaced their cardboard boxes with paper wrapping for all sandwiches to further reduce volume of waste.
- **Organic waste recycling** – Our San Diego site continues to take proactive steps to align with California Assembly Bill 1826, which requires businesses to recycle their organic waste. In 2024, the site partnered with a community-supported composting collective to recycle organic waste from campus kitchens. The resulting compost is provided to local farmers and gardens.



Develop sustainable products

1 Sustainable design

We integrate the Design for the Environment (DfE) approach into the core of our product development to find opportunities to increase the circularity of our products. 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 into our product design
- Optimize product 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

Data-driven improvement through LCAs

As a science-based organization, it is critical that we measure the environmental impact of our products to better influence innovation and verify our progress. In 2022, we engaged a third party to complete a streamlined life cycle assessment (LCA)* 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.

In 2024, we conducted another LCA to compare the cycle kits of the MiSeq system and the new MiSeq i100 Series. We found a **35% reduction in climate change impact†** with the MiSeq i100 Series kit.

Emissions per gigabase (Gb)

MiSeq	3.81 kg CO ₂ e
MiSeq i100 Series	2.46 kg CO ₂ e
NovaSeq 6000	0.09 kg CO ₂ e
NovaSeq X	0.04 kg CO ₂ e

2 Sustainable use

When designing our lifesaving innovations, we aim to create products that are both more powerful and more energy efficient. This is exemplified in the MiSeq i100 Series, with integrated optimized data analysis for reduced energy requirements, and room-temperature storage, eliminating the need for freezers in the lab. [Learn more about sustainability improvements in the MiSeq i100 Series](#)

3 End-of-life design planning

We develop innovations that serve our customers long into the future and that incorporate end-of-life design planning, including designing cartridges with more recyclable plastics and toolless disassembly for easier recycling.

4 Sustainable materials

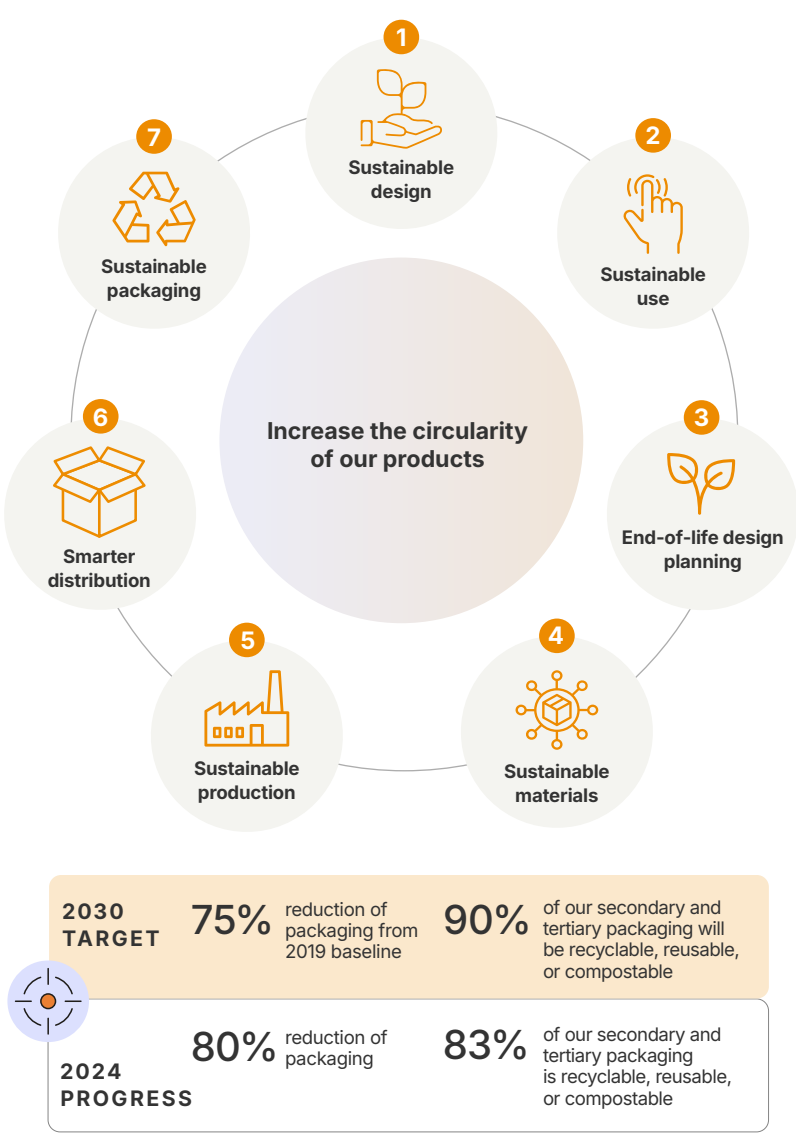
We are committed to sourcing sustainable materials, including reducing the amount of petroleum-based plastic in new product designs. We also actively work to replace the use of chemicals of concern with greener alternatives.

5 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. [Learn more](#)

6 Smarter distribution

We work to make the transportation of our products more efficient and sustainable. This includes our XLEAP-SBS chemistry enabling ambient shipping for certain products, which eliminates the need for cold chain shipping.



7 Sustainable packaging

We invest in making our packaging recyclable, returnable, and reusable. We incorporate renewable materials, seek to eliminate unfavorable materials, increase recycling, increase material efficiency, design for recovery, use recycled content, source responsibly, and look for volumetric efficiencies.

- **Ocean transit:** We utilize in-temperature ocean transportation as a sustainable alternative to bulk product shipments previously sent via air
 - Active ocean containers transit enables removal of passive insulated containers and coolant materials while still keeping product in ideal storage temperature with real-time monitoring
 - Diverted over 150,000 kilograms of packaging material from landfills in 2024
 - Optimal pallet patterns increased logistics efficiencies up to 160% in 2024
- **Crate reuse program:** We established a crate reuse program for instrument shipments within the continental United States
 - Over 75 instrument crates returned for reuse, including their ancillary components in 2024
 - 17,000 kilograms of instrument packaging diverted from landfills in 2024
- **Insulated containers:** We strive for continuous improvement, increasing global adoption and decreasing our environmental footprint for ongoing insulated container initiatives
 - **Returnable:** Insulated containers for refrigerated and frozen *in vitro* diagnostic (IVD) products can be returned for reuse. Every container returned diverts 34 kilograms of waste from landfills
 - **Reusable:** Insulated pallet shippers for frozen and refrigerated products are validated for multiple uses, supporting both internal network movements and customer bulk orders
 - **Recyclable:** Where possible, Illumina uses plant-based insulated containers, which require less energy and can be composted or recycled using standard paper recycling streams

*The projects 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 the reporting requirements of these standards, including third-party review.

*100% recyclable in the US and widely recyclable globally.
†Based on end market assessment NY, US

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 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 biodiversity and have reviewed potential risks and opportunities beyond our climate footprint. Using the Taskforce on Nature-related Financial Disclosures and the Kunming-Montreal Global Biodiversity Framework, we have also reviewed the links between our potential direct impacts and dependencies on natural capital. As the intersection of 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.

Agrigenomics

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



Genomic innovation in agriculture

In 2024, Illumina and LGC Biosearch Technologies, a pioneer in agricultural genomics, announced a strategic partnership to accelerate the adoption of genomics in agricultural applications. The partnership aims to deliver innovative solutions to researchers and breeders in the Asia Pacific (excluding China) and Latin America regions. [Learn more](#)

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](#)



[Sequencing five generations of San Diego Zoo koalas](#)

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.



Genomic innovation in conservation

In 2024, Illumina [partnered](#) with Citizens of the Sea, a charity recently cofounded by the Cawthron

Institute (NZ) and New Zealand Geographic, to analyze samples collected by sailors. The aim is to provide an unprecedented amount of data about biodiversity in the Pacific and the impact of climate change. [Watch the video](#)

Operate responsibly

KEY OBJECTIVES

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

Practice strong corporate governance

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](#), [Bylaws](#), 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
- Women chair 75% of standing committees

Skilled and independent Board

As stipulated in our Corporate Governance Guidelines, our company seeks to achieve a mix of Board members that represents a variety of backgrounds and experience. The Board of Directors believes in recruiting a highly qualified Board and maintaining strong corporate governance. 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 committees. Learn more in each committee charter:

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

Board CSR governance

The full Board provides CSR oversight for Illumina. The Nominating/Corporate Governance Committee assists the Board in overseeing the company's material CSR matters, except as specifically delegated to another Board committee.

[Learn more in Governance](#)

BOARD OF DIRECTORS



Frances Arnold, PhD
Professor of Chemical Engineering, Bioengineering & Biochemistry, 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
Chair of the Board, Illumina; Former Commissioner, US FDA



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



Keith Meister
Managing Partner & Chief Investment Officer, Corvex Management LP



Anna Richo
Former General Counsel, Chief Compliance Officer & Corporate Secretary, Cargill



Philip Schiller
Former Apple Fellow, Apple



Sue Siegel
Former Chief Innovation Officer & CEO, GE Ventures



Jacob Thaysen, PhD
CEO, Illumina



Scott Ullem
CFO, Edwards Lifesciences

6
year average tenure

91%
independent

Compliance program

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 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.

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.

Compliance Program governance

Illumina’s 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.

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 unique 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.

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.

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.



TRAINING

100% of employees* are assigned training annually

97% completed the web-based training and certified they have read and understand the code in 2024

*Including FTEs, contractors, consultants, and interns

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.

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.

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](#)
- [Compliance Information](#)
- [Ethics Information](#)
- [Interactions with Healthcare Professionals and Organizations](#)

Risk management

Illumina has adopted a companywide 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
 - Operational
 - Legal and regulatory
 - Brand and reputation
 - Product quality
 - Employee
 - Environmental, health, and safety
 - Climate (physical and transition)

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

Climate resilience

We are committed to climate action and the integration of climate resilience planning into our risk management program. See additional details on our [Taskforce 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.



Leslie Biesecker, MD



Glenn Cohen, JD



Freda Lewis-Hall, MD, DFAPA, MFPM



Nita Farahany, JD, PhD

Ethical use of genomic technologies

Illumina is steadfast in our commitment that genomic technologies should be used to benefit humanity, and we will work only with partners who further this mission. 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 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 concern.

KEY INITIATIVES

- Human Rights Oversight and Accountability Framework
- Human Rights Impact Assessment
- Supply Chain Human Rights Assessment
- Ethics Advisory Board
- Generative Artificial Intelligence Committee

Ethical marketing

The claims we make about our products must be truthful and accurate. All information we provide to our customers, including those that are involved in providing health care services, about our products 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. 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

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

- [Responsible Use of Stem Cells Position Statement](#)
- [Animal Testing Position Statement](#)
- [Ethical Artificial Intelligence Principles](#)

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 nondiscrimination
- 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 2024](#)

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 nondiscrimination
- 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

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](#)

Advocating for public policies that ensure and enable broad access to genomic technologies is a priority. In 2024, we focused engagement with public policy stakeholders in regard to:

- Advancement of precision medicine
- Adoption and reimbursement for genetic 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.

Genomic 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.

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 2024

- Obtained Swiss and UK extension to the EU-US Data Privacy Framework (DPF) certification, as mechanism to legitimize data transfers from, respectively, Switzerland and the UK to the US
- Submitted updated Binding Corporate Rules application, an international data transfer instrument and “gold standard for data protection compliance”
- Expanded the scope of products within our cloud bioinformatics portfolio for the 2024 [ISO 27701 privacy certification](#)
- Obtained APEC Privacy Recognition for Processors (PRP) Certification for six cloud informatics products covered by ISO 27001/ISO 27701
- Published whitepaper “Privacy standards and compliance with Illumina Connected Software” and related FAQs
- Active engagement in the MedTech Europe Data Protection Committee



LEARN MORE

- [Privacy Policy](#)
- [Privacy Principles](#)
- [Privacy Transparency Report](#)
- [Illumina Data Security and Privacy Statement](#)

Cybersecurity

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.

KEY REFERENCES

- NIST Cybersecurity Framework
- ISO 27001
- ISO 27701
- ISO 13485
- APEC Privacy Recognition for Processors (PRP)
- 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

Every year in October, Illumina works to increase awareness of the impact of cybersecurity threats and attacks and reinforces best practices all employees can follow to help keep Illumina and its data safe from cyber threats. 2024 activities included an information security quiz covering various cybersecurity threats and best practices, five cybersecurity videos focusing on cybersecurity issues and concepts for employees to help protect themselves and Illumina, and three keynote speaker sessions discussing real-world examples of cyber threats and tips for avoiding them.

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

- Health 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 toward 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*

*Limited to cloud-based informatics products; does not apply to instruments.

Responsible supply chain

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.

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](#). 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

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.

Sustainable supplier program

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](#).

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. Additional information is available in our [Modern Slavery Statement 2024](#).

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](#).



LEARN MORE

- [Conflict-Free Minerals Policy](#)
- [Illumina Modern Slavery Statement 2024](#)
- [Responsible Use of Stem Cells Position Statement](#)
- [Animal Testing Position Statement](#)
- [Channel Partner Code of Conduct](#)
- [Supplier Code of Conduct](#)

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 2024, Illumina initiated two Class III Recalls for cybersecurity vulnerability. Class III Recalls in the US do not require reporting to the FDA. To date, there is no evidence that an Illumina product has been compromised. There was one additional recall Illumina initiated during 2024 that took place outside of the US and was not related to cybersecurity vulnerability.

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%

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

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](#)



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

Appendix

JUMP TO

- [1 About this report →](#)
- [2 Key performance indicators →](#)
- [3 GRI index →](#)
- [4 SASB index →](#)
- [5 TCFD index →](#)
- [6 Assurance statements →](#)
- [7 Disclosures →](#)



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.

Boundaries and exclusions

The boundary of this report includes only core Illumina activities.

Reporting period

January 1, 2024, to December 31, 2024, 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. There were no material changes or restatements in 2024. Any nonmaterial changes are specified individually in footnotes.

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
- CDP
- 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
- UN Women Empowerment Principles
- STEMM Opportunity Alliance

Relevant memberships

- Business for Social Responsibility (BSR)
- Association of Corporate Citizenship Professionals (ACCP)
- Sustainable Packaging Coalition
- My Green Lab

Data governance, collection, and management

In 2024, we evolved our reporting and data collection process and invested in a new system to strengthen the measurement and performance of our CSR program. This included migrating our data collection and management system to an upgraded cloud-based solution that enables greater auditability, better data quality, and integration of existing solutions.



CONTACT

We welcome your feedback at csr@illumina.com

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[Illumina CSR reporting hub](#)

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*UNGC Communication on Progress Illumina participant [page](#).

Key performance indicators

Introduction

General	2024
Name of organization	Illumina, Inc.
Location of headquarters	San Diego, California, US
Number of global locations	2024 10-K
Nature of ownership and legal form	Public Corporation
Core Illumina revenue	~\$4.33 billion as of FY24
Total capitalization (stockholders' equity) market value as of 12/31 of reporting year	~\$2.4 billion
Building footprint ^a	2,345,815 square feet
Reporting boundary footprint	2,118,173 square feet
Facility additions ^{b,c}	3
Facility closures ^d	3

Accelerate access to genomics

Access to genomics	2024
NGS coverage outlook: total insured lives	1.4 billion
In-kind product donations	\$1,550,941

Footnotes:

^aAverage square feet during reporting year.

^bAdded commercial facilities in India and Madrid October 2024. Expanded Baltimore Commercial Office

^cAcquired new Watertown facility through acquisition September 2024.

^dClosed UK Cori Accelerator, London Services, and Granta Centre TWI sites.

^eDue to a reporting error, giving numbers were overstated in 2023. The 2023 numbers are updated here. The discrepancy was due to an unprocessed grant payment at the end of 2023 reporting year.

^fIn order to be included in the Causes Database, an organization must meet their country's NGO guidelines. Organizations are then evaluated against 1200 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	2022	2023 ^e	2024
Illumina, Inc. + Illumina Corporate Foundation + employee giving	\$1,185,088	\$18,239,858	\$8,764,728	\$5,534,145
Illumina, Inc. + Illumina Corporate Foundation	\$873,088	\$17,676,194	\$8,441,277	\$5,289,692
Number of causes supported ^f	1021	1747	2281	1962

Illumina Corporate Foundation giving	2019 baseline	2022	2023 ^e	2024
Charitable grants	\$105,000	\$4,887,885	\$3,278,533	\$3,126,716
Employee donation matching and rewards	\$216,781	\$605,547	\$717,388	\$591,604
Total Foundation giving (not including employees)	\$313,000	\$5,860,477	\$3,778,828	\$3,738,751

Employee participation	2019 baseline	2022	2023	2024
Employee participation in giving and/or volunteering	40%	50%	58%	52%
Employee participation (giving)	19%	28%	47%	33%
Employee giving	\$312,000	\$563,664	\$323,451	\$244,454
Employee participation (volunteering)	29%	39%	31%	43%
Employee hours	13,980	20,142	20,506	23,734

Summary of international giving (outside US)	2019 baseline	2022	2023	2024
Illumina, Inc. in-kind	NA	\$5,994,599	\$960,571	\$1,190,364
Illumina Corporate Foundation	NA	\$1,980,646	\$1,363,411	\$890,200
Number of countries	24	46	63	50

STEM	2019 baseline	2022	2023	2024
Number of learners engaged in Illumina STEM programs	306,170	396,865	348,691	535,216

Key performance indicators

Nurture our people and communities continued

Workforce data	2019 <small>baseline</small>	2022 ^a	2023 ^a	2024 ^a
Total employees	7802	10,257	9308	9026
Full-time employees	7749	10,195	9254	8968
Part-time employees	53	62	54	58
Contingent workers	1247	1578	1375	1344
Age group				
Employees under 30	1527	1963	1538	1280
	20%	19%	17%	14%
Employees 30–50	5090	6748	6253	6206
	65%	66%	67%	69%
Employees over 50	1185	1546	1517	1540
	15%	15%	16%	17%
AMR				
Total employees	4973	6342	5559	5245
Full-time employees	4954	6324	5550	5235
Part-time employees	19	18	9	10
Contingent workers	971	726	576	551

Workforce data	2019 <small>baseline</small>	2022 ^a	2023 ^a	2024 ^a
APJ ^b				
Total employees	N/A	2097	2057	2154
Full-time employees	N/A	2097	2056	2152
Part-time employees	N/A	0	1	2
Contingent workers	N/A	533	544	561
Greater China ^b				
Total employees	N/A	358	327	296
Full-time employees	N/A	358	327	296
Part-time employees	N/A	0	0	0
Contingent workers	N/A	33	42	68
EMEA				
Total employees	946	1459	1365	1331
Full-time employees	913	1415	1321	1285
Part-time employees	33	44	44	46
Contingent workers	112	186	194	164

Footnotes:

^a Denotes data has been assured.

^b APAC region reclassified to APJ and Greater China. Due to reclassification data is not available prior to 2022.

General notes:

- For all people metrics unless specified, the values include only regular Illumina employees, not contingent workers.
- Some segments may not add up to total due to rounding.

Key performance indicators

Nurture our people and communities continued

New hire data	2019 baseline	2022 ^a	2023 ^a	2024 ^a
New hire by age group ^b				
Employees under 30	458	860	309	247
	30%	44%	20%	19%
Employees 30–50	716	1,320	419	468
	14%	20%	7%	8%
Employees over 50	89	140	51	53
	8%	9%	3%	3%
New hire by region				
AMR new employee hires	707	1315	316	312
	14%	21%	6%	6%
APJ new employee hires ^c	N/A	559	316	287
	N/A	27%	15%	13%
Greater China new employee hires ^c	N/A	61	29	38
	N/A	17%	9%	13%
EMEA new employee hires	180	384	118	131
	19%	26%	9%	10%

Promotion data	2019 baseline	2022 ^a	2023 ^a	2024 ^a
Total number of employees promoted	1502	2436	1372	1420
Veteran data (US)				
Number of US employees, regardless of whether they have any military connection	4908	6210	5422	5080
Number of employees as defined by the federal government as meeting the criteria for protected veteran status	87	92	74	61
Number of veteran and active-duty employees, regardless of protected status	143	157	125	103
Number of disabled veteran employees	2	3	0	25
Number of women veteran employees	24	27	22	13
Number of minority veteran employees—minority veterans include, but are not limited to, people of color, women, LGBTQIA+, and (non) religious minorities	67	80	75	54
Percentage of veterans (US)	3%	3%	2%	2%
Other identities self reported (us)				
Disabilities (US)	3%	4%	10%	10%

Footnotes:

^aDenotes data has been assured.
^bPercentage data for new hire by age represents the percentage of the total age group headcount for the reporting year.
^cAPAC region reclassified to APJ and Greater China. Due to reclassification data is not available prior to 2022.

General notes:

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

Key performance indicators

Nurture our people and communities continued

Employee turnover data	2019 baseline	2022 ^a	2023 ^a	2024 ^a
Total turnover				
Total number of employee turnover	856	1246	1734	1051
Rate of employee turnover	11%	13%	18%	11%
Total number of voluntary turnover	644	1050	674	616
Rate of voluntary turnover	9%	11%	7%	7%
Turnover by age				
Employees under 30	229	308	362	187
	15%	16%	21%	13%
Employees 30–50	489	787	1090	669
	10%	12%	17%	11%
Employees over 50	138	151	282	195
	12%	10%	18%	13%
Voluntary employee turnover under 30	195	279	176	139
	13%	15%	10%	10%
Voluntary employee turnover 30–50	366	654	429	390
	7%	10%	7%	6%
Voluntary employee turnover over 50	82	117	69	87
	7%	8%	5%	6%
Turnover by level				
Voluntary turnover support to entry professional	11%	16%	9%	8%
Involuntary turnover support to entry professional	3%	2%	15%	3%
Voluntary turnover intermediate to senior professional	8%	9%	6%	5%
Involuntary turnover intermediate to senior professional	2%	2%	10%	5%
Voluntary turnover manager to associate director	6%	10%	6%	7%
Involuntary turnover manager to associate director	4%	1%	9%	6%
Voluntary turnover director and above	6%	9%	6%	6%
Involuntary turnover director and above	4%	2%	9%	10%

Footnotes:

^aDenotes data has been assured.

^bAPAC region reclassified to APJ and Greater China. Due to reclassification data is not available prior to 2022.

General notes:

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

Employee turnover data	2019 baseline	2022 ^a	2023 ^a	2024 ^a
Total turnover by region				
AMR	530	646	1098	627
	11%	11%	18%	12%
APJ ^b	N/A	349	357	191
	N/A	18%	17%	9%
Greater China ^b	N/A	56	60	67
	N/A	16%	18%	22%
EMEA	103	195	219	166
	11%	14%	16%	12%
Voluntary turnover by region				
AMR	384	586	368	333
	8%	10%	6%	6%
APJ ^b	N/A	290	172	155
	N/A	15%	8%	7%
Greater China ^b	N/A	25	20	29
	N/A	7%	6%	9%
EMEA	72	149	114	99
	8%	11%	8%	7%

Key performance indicators

Nurture our people and communities continued

Benefit plan and other retirement	2019 ^{baseline}	2022 ^a	2023 ^a	2024 ^a
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	US 401(k): 97% employee voluntary participation	
Employee bonus and stock program	2019 ^{baseline}	2022 ^a	2023 ^a	2024 ^a
Employees eligible for annual VCP bonus	Employees eligible for annual variable compensation pay			
Employees eligible to participate in employee stock purchase plan	All employees			

Performance & career development review	2019 ^{baseline}	2022 ^a	2023 ^a	2024 ^a
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}	2022 ^a	2023 ^a	2024 ^a
Participation rate for employee iPulse survey	89%	86%	88%	90%
Annual compensation ratio	2019 ^{baseline}	2022 ^a	2023 ^a	2024 ^a
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}	2022 ^a	2023 ^a	2024 ^a
Average hours of training per employee per year	60	62	62	58
Hours of training by employee category: Individual Contributor	64	66	66	57
Hours of training by employee category: Middle Management	71	70	77	65
Hours of training by employee category: Senior Management	38	39	41	39
Hours of training by employee category: Executive Leadership	22	26	28	28
Hours of training by functional category: Commercial Operations	50	51	45	44
Hours of training by functional category: General Operations	23	25	28	30
Hours of training by functional category: Manufacturing	91	96	101	94
Hours of training by functional category: Research & Development	53	58	59	55
Total number of hours devoted to training on human rights	1737	4726	3081	4440
Applicable employees certified to Code of Conduct	99%	97%	96%	96%

Footnotes:

^aDenotes data has been assured.

^bEmployee 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.

Key performance indicators

Nurture our people and communities continued

Health & safety	2019 baseline	2022 ^a	2023 ^a	2024 ^a
Global recordable injury or illness incident rate (incident per 100 employees)	0.52	0.23	0.27	0.32
Lost time incident rate	0.74	0.12	0.10	0.33
Days away restricted time (DART)	0.34	0.17	0.20	0.34
Environment, health, and safety notices of violations	0	0	0	0
Environmental fines	0	0	0	0
Prevention reporting statistics	3611	2054	4135	3697

Employee safety	2019 baseline	2022 ^a	2023 ^a	2024 ^a
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	23	29	32
The rate of high-consequence work-related injuries and illnesses (excluding fatalities)	0.62	0.24	0.27	0.32
The number of recordable work-related injuries and illnesses	49	23	29	32
The rate of recordable work-related injuries and illnesses	0.62	0.24	0.27	0.32
The main types of work-related injury and illness	Ergonomics, strains, contusions, and sprains	Ergonomics, strains, contusions, and sprains	Slips, trips, ergonomics, strains, and sprains	Ergonomics, manual handling, slips and trips
The number of hours worked	15,647,395	19,462,592	18,055,184	18,111,454
EHS risk assessments completed globally	79	84	177	292
Ergonomic evaluations completed	N/A	293	184	126

Contingent workers safety	2019 baseline	2022 ^a	2023 ^a	2024 ^a
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	3	0	0
The rate of high-consequence work-related injuries and illnesses (excluding fatalities)	0	0.18	0	0
The number of recordable work-related injuries and illnesses	0	3	0	0
The rate of recordable work-related injuries and illnesses	0	0.18	0	0
The main types of work-related injury and illness	Ergonomics, strains, contusions, and sprains	Ergonomics, strains, contusions, and sprains	N/A	N/A
The number of hours worked	2,741,396	3,296,423	2,687,619	1,774,282

Environmental, health, and safety training	2019 baseline	2022 ^a	2023 ^a	2024 ^a
Total hours of EHS training	26,758	43,066	45,022	39,953
Average hours per employee	3.7	4	4.11	4.02

Footnotes:

^aDenotes data has been assured.

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	2022 ^a	2023 ^a	2024 ^a
Total fuel consumption from nonrenewable sources	247,576	375,516	357,299	371,157
Total fuel consumption from renewable sources	0	0	0	0
Generation from renewable sources consumed by the organization	1566	2966	2837	2245
Total energy consumption from nonrenewable sources	503,658	375,516	357,299	371,157
Total energy consumption from renewable sources	1566	231,678	236,358	230,708
Total energy consumption	505,224	607,194	593,658	601,865

Energy consumption by activity and region (Units: Gigajoules)	2019 baseline	2022 ^a	2023 ^a	2024 ^a
Purchased electricity	256,082	228,712	233,521	230,708
Generated electricity (onsite solar)	1566	2966	2837	2245
Natural gas (fuel)	247,576	375,516	357,299	371,157
Electricity, heating, cooling, steam sold or consumed	0	0	0	0

Consumption by country	2024 ^a
China	5528
Netherlands	6082
Singapore	103,123
United Kingdom	31,018
United States	456,114

Renewable electricity consumption	2019 baseline	2022 ^a	2023 ^a	2024 ^a
Percentage of global electricity consumption that is renewable	0.6%	100%	100%	100%
Onsite solar generation	0.6%	1%	1%	1%
Renewable electricity purchased	0%	37%	39%	27%
Covered by renewable energy credits	0%	62%	60%	72%

Footnotes:

^aDenotes data has been assured.

^bSee our Voluntary Carbon Market Disclosure Act disclosure [here](#).

- 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	2022 ^a	2023 ^a	2024 ^a
Gross direct GHG emissions (Scope 1)	12,489	18,902	17,993	18,836
Gross market-based energy indirect GHG emissions (Scope 2)	21,915	0	0	0
Gross location-based energy indirect GHG emissions (Scope 2)	21,915	21,022	21,137	21,224
Covered by carbon offsets ^b	0	18,902	17,993	18,836

Country-specific scope 1 emissions (Units: Metric tons CO ₂ e)	2019 baseline	2022 ^a	2023 ^a	2024 ^a
China	0	0	0	0
Netherlands	73	55	82	59
Singapore	0	0	0	0
United Kingdom	1132	688	738	679
United States	11,284	18,159	17,173	18,098

Country-specific scope 2 market-based emissions (Units: Metric tons CO ₂ e)	2019 baseline	2022 ^a	2023 ^a	2024 ^a
China	388	0	0	0
Netherlands	384	0	0	0
Singapore	8099	0	0	0
United Kingdom	1425	0	0	0
United States	11,619	0	0	0

Country-specific scope 2 location-based emissions (Units: Metric tons CO ₂ e)	2019 baseline	2022 ^a	2023 ^a	2024 ^a
China	388	569	791	941
Netherlands	384	541	424	429
Singapore	8099	9803	10,184	10,996
United Kingdom	1425	996	1059	1005
United States	11,619	9139	8679	7852

Key performance indicators

Integrate sustainability continued

Facility-specific emissions ^{b,c} (Units: Metric tons CO ₂ e)	2023 ^a			2024 ^a		
	Scope 1	Scope 2 Market-Based	Scope 2 Location-Based	Scope 1	Scope 2 Market-Based	Scope 2 Location-Based
Cambridge, United Kingdom	731	0	1035	679	0	1005
Foster City, California	990	0	1456	1016	0	1359
Hayward, California	598	0	656	543	0	642
Madison, Wisconsin	1253	0	2542	1301	0	2590
Northcoast, Singapore	0	0	1105	0	0	1524
San Diego Headquarters, California	13,883	0	3778	15,238	0	3181
San Diego i3, California			Facility closed			
San Diego Warehouse, California	0	0	76	0	0	81
Shanghai, China (Commercial)	0	0	492	0	0	516
Shanghai, China (Manufacturing)	0	0	299	0	0	425
Steenoven, Netherlands	82	0	424	59	0	429
Watson, United Kingdom	7	0	24		Facility closed	
Woodlands, Singapore	0	0	9079	0	0	9473

Greenhouse gas breakdown (Units: Metric tons CO ₂ e)	2019 ^{baseline}	2022 ^a	2023 ^a	2024 ^a
CO ₂ Scope 1	12,475	18,518	17,628	18,453
CH ₄ Scope 1	7	349	332	348
N ₂ O Scope 1	6	35	33	35

Emission intensity ratios (scope 1 & 2)	2019 ^{baseline}	2022 ^a	2023 ^a	2024 ^a
GHG emission intensity per million dollars revenue	9.8	4.2	4.1	4.3
GHG emission intensity kgCO ₂ e/square foot	13.8	7.5	7.0	8.0
GHG emission intensity per employee	4.4	1.8	1.9	2.1

Emission intensity ratio (scope 3)	2019 ^{baseline}	2022 ^a	2023 ^a	2024 ^a
GHG emission intensity per million dollars revenue	72.6	78.8	65.4	55.8

Footnotes:

- ^aDenotes data has been assured.
- ^bFacilities included in Scope 1 & 2 GHG Scope Boundary.
- ^cScope 3 material categories included in SBTi emission reduction and net zero targets

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.

Scope 3 emissions (Units: Metric tons CO ₂ e)	2019 ^{baseline}	2022	2023 ^a	2024 ^a
Purchased Goods and Services (Category 1) ^c	72,915	131,929	115,187	62,264
Capital Goods (Category 2) ^c	39,940	83,071	61,677	37,194
Fuel- and Energy-Related Activities (Category 3)	6956	8590	7039	7311
Upstream Transportation & Distribution (Category 4) ^c	46,327	85,993	86,429	97,472
Waste Generated in Operations (Category 5)	236	1275	1483	1039
Business Travel (Category 6) ^c	19,350	20,040	10,884	24,412
Employee Commuting (Category 7) ^c	18,012	15,027	8954	8518
Upstream Leased Assets (Category 8)	1480	830	1502	1903
Downstream Transportation & Distribution (Category 9)		Assessed, not relevant		
Processing of Sold Products (Category 10)		Assessed, not relevant		
Use of Sold Products (Category 11)	6968	11,865	5764	1767
End-of-Life Treatment of Sold Products (Category 12)	2368	31	107	60
Downstream Leased Assets (Category 13)		Assessed, not relevant		
Franchises (Category 14)		Assessed, not relevant		
Investments (Category 15) ^c	23,559	0	0	0
Total Scope 3 Emissions	238,110	358,651	299,025	241,938

Scope 3 emissions: % of total scope 3 emissions	2019 ^{baseline}	2022 [*]	2023 ^a	2024 ^a
Purchased Goods and Services (Category 1) ^c	31%	37%	39%	26%
Capital Goods (Category 2) ^c	17%	23%	21%	15%
Fuel- and Energy-Related Activities (Category 3)	3%	2%	2%	3%
Upstream Transportation & Distribution (Category 4) ^c	19%	24%	29%	40%
Waste Generated in Operations (Category 5)	0.1%	0%	0%	0.4%
Business Travel (Category 6) ^c	8%	6%	4%	10%
Employee Commuting (Category 7) ^c	8%	4%	3%	4%
Upstream Leased Assets (Category 8)	0.6%	0%	1%	1%
Use of Sold Products (Category 11)	3%	3%	2%	1%
End-of-Life Treatment of Sold Products (Category 12)	1%	0%	0.04%	0.02%
Investments (Category 15) ^c	10%	0%	0%	0%

Key performance indicators

Integrate sustainability continued

Water ^a (Units: Megaliters)	2019 _{baseline}	2022 ^a	2023 ^a	2024 ^a
Total consumption (interactions with water: potable and recycled)	225	256	277	248
Water withdrawal (potable) ^e	147	213	267	244
Water withdrawal (recycled) ^e	78	43	10	4
Percentage of total water withdrawal in water-stressed regions ^b	63%	66%	49%	47%
Water intensity (kiloliters by rentable square feet for core locations) ^c	0.10	0.10	0.13	0.12

Consumption by country (Units: Megaliters)	2024 ^a
Netherlands	1
Singapore	74
United Kingdom	7
United States	166

Total waste (Units: Metric tons)	2019 _{baseline}	2022 ^a	2023 ^a	2024 ^a
Total (hazardous + nonhazardous)	4934	7503	7336	6343
Global average nonhazardous diversion from landfill ^d	51%	64%	56% ^f	54%

Effluent & waste by type and disposal method (Units: Metric tons)	2019 _{baseline}	2022 ^a	2023 ^a	2024 ^a
Nonhazardous waste				
Nonhazardous waste total	3494	6119	5964	4867
Reuse	0	0	0	0
Recycling	887	3338	2701	2149
Composting	149	267	336	259
Recovery (including energy recovery)	760	366	303	202
Incineration	0	0	0	3.24
Deep well injection	0	0	0	0
Landfill	1698	2224	2624	2253
Onsite storage	0	0	0	0
Other	0	0	0	0

Hazardous waste				
Hazardous waste total	1440	1383	1372	1476
Reuse	0	0	0	0
Recycling	413	65	206	289
Composting	0	0	0	0
Recovery (including energy recovery)	850	943	1079	1120
Incineration	62	47	44	61
Deep well injection	0	0	0	0
Landfill	37	8	43	6
Onsite storage	0	0	0	0
Other	77	12	0	0

Footnotes:

^aDenotes data has been assured.

^bWater-stressed regions listed [here](#).

^cCore locations: San Diego HQ, i3 and Warehouse, Hayward, Foster City, Madison, Netherlands, Cambridge, and Singapore.

^dDiversion calculated using nonhazardous waste and % diverted from landfill.

^eWater from third-party source.

^fCorrected from 63% to 56% due to 2023 error in diversion calculation.

Key performance indicators

Operate responsibly

Governance	2019 baseline	2022	2023	2024
Noncompliance with environmental laws and regulations; Significant fines and nonmonetary 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		See note 3		
Total employees covered by collective bargaining agreements	0	0	0	0
Incidents of discrimination and corrective actions taken		See note 4		
Transparency reporting law enforcement and national security requests	N/A	2022 Privacy Transparency Report	2023 Privacy Transparency Report	2024 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	Yes	Yes	Yes
The organization is unaware of any operations in which there is a significant risk for incidents of child labor.	N/A	Confirmed	Confirmed	Confirmed
The organization is unaware in which there is a significant risk for incidents of forced or compulsory labor.	N/A	Confirmed	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. The FTC subsequently dismissed the matter without further action after Illumina divested GRAIL.

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	SVP, Chief People Officer	1	2
Compliance, Ethics, Legal	SVP, Chief Legal Officer	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)		2024
BoD level oversight for CSR (including themes of sustainability and climate action, human rights, cybersecurity, data privacy, and ethical and responsible business practices)		Yes
Number of directors		11
Number of independent directors		10
Average Board tenure		5.9 years

- In parallel proceedings, the European Commission also issued orders prohibiting Illumina’s acquisition of GRAIL, and instructed Illumina to divest GRAIL. On July 12, 2023, the 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 Commission’s review. Illumina denied the allegations and appealed the Commission’s decisions relating to the GRAIL acquisition. On September 3, 2024, the Court of Justice for the European Union issued a final non-appealable judgment in favor of Illumina, holding that the Commission did not have jurisdiction to review the GRAIL acquisition, and ordered the Commission to pay Illumina’s costs in that action. On September 6, 2024, in light of the court’s judgment, the Commission withdrew the orders described above and vacated the fine.
3. Illumina treats this data as confidential company information. Supplemental references: [Proxy Filing](#); [Code of Conduct](#)
4. During the past 13 years, including during the reporting period, neither the EEOC nor any court or administrative agency or court has issued a finding against Illumina in a claim involving discrimination. Illumina does not tolerate acts of discrimination, and promotes 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

Political contributions	2019 baseline	2021	2022	2023	2024
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	\$0

Trade association & memberships	2021	2022	2023	2024
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 nondeductible 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.				

EMEA trade association memberships				
All.Can (ASBL)	\$35,000	\$32,204	\$31,752	\$35,069
EUCOPE	\$27,892	\$19,322	\$19,034	\$25,982
American Chamber of Commerce France				\$5,738
Labor Business Network in the UK				\$22,885
US Qatar Business Council	\$10,000	\$10,000	\$10,000	\$10,000
US Saudi Arabian Business Council	\$10,000	\$10,000	\$10,000	\$10,000
US UAE Business Council	\$10,000	\$10,000	\$10,000	\$15,000
AmCham Abu Dhabi				\$15,000
AmCham Dubai				\$15,000
US Algeria Business Council				\$15,000
American European Community Association (AECA)			\$5634	\$0

APJ and greater China trade association memberships				
US India Business Council	\$27,500	\$20,000	\$0	\$0
Pathology Technology Australia	\$7309	\$20,868	\$0	\$0
US Chamber — China	\$25,000	\$25,000	\$0	\$0
US-China Business Council (USCBC)	\$15,000	\$15,000	\$15,000	\$0
US-ASEAN	\$11,686	\$14,500	\$18,850	\$18,850
AmCham China	\$7413	\$4026	\$4007	\$4120

Trade association & memberships	2021	2022	2023	2024
US trade association memberships				
US Chamber of Commerce	\$150,000	\$160,000	\$360,000	\$220,000
Coalition for Access to Prenatal Screening (CAPS)	\$100,000	\$100,000	\$75,000	\$100,000
Access to Comprehensive Genomic Profiling Coalition	\$80,813	\$75,000	\$75,000	\$75,000
Biocom	\$56,300	\$57,500	\$67,500	\$67,500
American Clinical Laboratory Association (ACLA)	\$50,000	\$50,000	\$50,000	\$50,000
Coalition for 21st Century Medicine	\$50,000	\$50,000	\$0	\$0
Personalized Medicine Coalition (PMC)	\$32,000	\$32,000	\$38,000	\$38,000
California Chamber of Commerce	\$25,000	\$0	\$0	\$0
San Diego Economic Development Corp. (SDEDC)	\$25,000	\$25,000	\$25,000	\$25,000
AdvaMed	\$19,950	\$19,950	\$19,950	\$9450
American Cancer Society—Cancer Action Network (ACS-CAN)	\$10,000	\$0	\$0	\$10,000
San Diego Regional Chamber of Commerce (SD Chamber)	\$7650	\$7650	\$7900	\$8150
American College of Medical Genetics and Genomics (ACMG)				\$25,000
Association for Molecular Pathology (AMP)				\$40,000
Academy of Managed Care Pharmacy (AMCP)				\$15,000
Association of Public Health Laboratories (APHL)				\$19,425
Child Neurology Society				\$55,000
GA4GH, Inc.				\$25,000
International Society for Prenatal Diagnosis				\$10,000
Conquer Cancer Foundation				\$15,000
Community Oncology Alliance				\$40,000

Organization	Total annual membership fee			% Membership fees used for state or federal lobbying			Dollars applied to state or federal lobbying from membership fees		
				2022	2023	2024	2022	2023	2024
US Chamber of Commerce	\$160,000	\$360,000	\$220,000	35%	35%	40%	\$56,000	\$126,000	\$88,000
American Clinical Laboratory Association (ACLA)	\$50,000	\$50,000	\$50,000	30%	59%	59%	\$29,500	\$29,500	\$29,500
Biocom	\$57,500	\$67,500	\$67,500	10%	10%	10%	\$5750	\$6750	\$6750

General notes:

- Updated data to reflect most current information.
- For 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.

GRI index

GRI description	GRI section	Illumina report
GRI 1: Foundation 2021		
Statement of use	Illumina has reported in accordance with the GRI Standards for the period 1st January 2024 to 31st December 2024	
GRI 1 reference	GRI 1	GRI 1: Foundation 2021
GRI 2: General disclosures 2021		
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 , CSR Hub
Embedding policy commitments	GRI 2-24	CSR at Illumina , People , Sustainability , Responsibility , CSR 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 2021		
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 2016		
Management approach: Economic performance	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
Financial assistance received from government	GRI 201-4	
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 2016		
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 2016		
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 2016		
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 2016		
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

GRI Index continued

GRI description	GRI section	Illumina report
GRI 207: Tax 2019		
Management approach: Tax	GRI 3-3	
Approach to tax	GRI 207-1	
Tax governance, control, and risk management	GRI 207-2	
Stakeholder engagement and management of concerns related to tax	GRI 207-3	
Country-by-country reporting	GRI 207-4	
GRI 301: Materials 2016		
Management approach: Materials	GRI 3-3	CSR at Illumina, Sustainability
Materials used by weight or volume	GRI 301-1	Sustainability
Recycled input materials used	GRI 301-2	
Reclaimed products and their packaging materials	GRI 301-3	
GRI 302: Energy 2016		
Management approach: Energy	GRI 3-3	CSR at Illumina, Sustainability
Energy consumption within the organization	GRI 302-1	Sustainability, Appendix
Energy consumption outside of the organization	GRI 302-2	Sustainability, Appendix
Energy intensity	GRI 302-3	Sustainability, Appendix
Reduction of energy consumption	GRI 302-4	Sustainability, Appendix
Reductions in energy requirements of products and services	GRI 302-5	Sustainability
GRI 303: Water and effluents 2018		
Management approach: Water and effluents	GRI 3-3	CSR at Illumina, Sustainability
Interactions with water as a shared resource	GRI 303-1	Sustainability, Appendix
Management of water discharge-related impacts	GRI 303-2	Sustainability, Appendix
Water withdrawal	GRI 303-3	Sustainability, Appendix
Water discharge	GRI 303-4	Sustainability, Appendix
Water consumption	GRI 303-5	Sustainability, Appendix
GRI 304: Biodiversity 2016		
Management approach: Biodiversity	GRI 3-3	CSR at Illumina, Sustainability
Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	GRI 304-1	Sustainability
Significant impacts of activities, products and services on biodiversity	GRI 304-2	Sustainability
Habitats protected or restored	GRI 304-3	Sustainability
IUCN Red List species and national conservation list species with habitats in areas affected by operations	GRI 304-4	Sustainability

GRI description	GRI section	Illumina report
GRI 305: Emissions 2016		
Management approach: Emissions	GRI 3-3	CSR at Illumina, Sustainability
Direct (Scope 1) GHG emissions	GRI 305-1	Sustainability, Appendix
Energy indirect (Scope 2) GHG emissions	GRI 305-2	Sustainability, Appendix
Other indirect (Scope 3) GHG emissions	GRI 305-3	Sustainability, Appendix
GHG emissions intensity	GRI 305-4	Sustainability, Appendix
Reduction of GHG emissions	GRI 305-5	Sustainability, Appendix
Emissions of ozone-depleting substances (ODS)	GRI 305-6	Appendix
Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	GRI 305-7	Appendix
GRI 306: Waste 2020		
Management approach: Waste	GRI 3-3	CSR at Illumina, Sustainability
Waste generation and significant waste-related impacts	GRI 306-1	Sustainability, Appendix
Management of significant waste-related impacts	GRI 306-2	Sustainability
Waste generated	GRI 306-3	Sustainability, Appendix
Waste diverted from disposal	GRI 306-4	Sustainability, Appendix
Waste directed to disposal	GRI 306-5	Sustainability, Appendix
GRI 308: Supplier environmental assessment 2016		
Management approach: Supplier environmental assessment	GRI 3-3	CSR at Illumina, Sustainability, Responsibility
New suppliers that were screened using environmental criteria	GRI 308-1	Responsibility, Appendix
Negative environmental impacts in the supply chain and actions taken	GRI 308-2	Sustainability
GRI 401: Employment 2016		
Management approach: Employment	GRI 3-3	CSR at Illumina, People
New employee hires and employee turnover	GRI 401-1	Appendix
Benefits provided to full-time employees that are not provided to temporary or part-time employees	GRI 401-2	People, Appendix
Parental leave	GRI 401-3	People, Appendix
GRI 402: Labor/Management Relations 2016		
Management approach: Labor/management relations	GRI 3-3	
Minimum notice periods regarding operational changes	GRI 402-1	

GRI Index continued

GRI description	GRI section	Illumina report
GRI 403: Occupational health and safety 2018		
Management approach: Health and safety	GRI 3-3	CSR at Illumina , People
Occupational health and safety management system	GRI 403-1	People , Appendix
Hazard identification, risk assessment, and incident investigation	GRI 403-2	People , Appendix
Occupational health services	GRI 403-3	People , Appendix
Worker participation, consultation, and communication on occupational health and safety	GRI 403-4	People , Appendix
Worker training on occupational health and safety	GRI 403-5	People , Appendix
Promotion of worker health	GRI 403-6	People , Appendix
Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	GRI 403-7	People , Appendix
Workers covered by an occupational health and safety management system	GRI 403-8	People , Appendix
Work-related injuries	GRI 403-9	People , Appendix
Work-related ill health	GRI 403-10	People , Appendix
GRI 404: Training and education 2016		
Management approach: Training and education	GRI 3-3	CSR at Illumina , People
Average hours of training per year per employee	GRI 404-1	Introduction , People , Appendix
Programs for upgrading employee skills and transition assistance programs	GRI 404-2	People
Percentage of employees receiving regular performance and career development reviews	GRI 404-3	People , Appendix
GRI 405: Diversity and equal opportunity 2016		
Management approach: Diversity and equal opportunity	GRI 3-3	CSR at Illumina , People , Appendix
Diversity of governance bodies and employees	GRI 405-1	People , Responsibility , Appendix
Ratio of basic salary and remuneration of women to men	GRI 405-2	Appendix
GRI 406: Non-discrimination 2016		
Management approach:	GRI 3-3	CSR at Illumina , People
Incidents of discrimination and corrective actions taken	GRI 406-2	People , Appendix
GRI 407: Freedom of association and collective bargaining 2016		
Management approach: Freedom of association and collective bargaining	GRI 3-3	CSR at Illumina , People
Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	GRI 407-1	Appendix
GRI 408: Child labor 2016		
Management approach: Child labor	GRI 3-3	CSR at Illumina , Responsibility
Operations and suppliers at significant risk for incidents of child labor	GRI 408-1	Responsibility

GRI description	GRI section	Illumina report
GRI 409: Forced or compulsory labor 2016		
Management approach: Forced and compulsory labor	GRI 3-3	CSR at Illumina , Responsibility , Appendix
Operations and suppliers at significant risk for incidents of forced or compulsory labor	GRI 409-1	Responsibility , Appendix
GRI 410: Security practices 2016		
Management approach: Security Practice	GRI 3-3	CSR at Illumina
Security personnel trained in human rights policies or procedures	GRI 410-1	Appendix
GRI 411: Rights of Indigenous Peoples 2016		
Management approach: Rights of Indigenous People	GRI 3-3	
Incidents of violations involving rights of indigenous peoples	GRI 411-1	
GRI 413: Local communities 2016		
Management approach: Local communities	GRI 3-3	CSR at Illumina , People
Operations with local community engagement, impact assessments, and development programs	GRI 412-1	People , Access
Operations with significant actual and potential negative impacts on local communities	GRI 413-2	
GRI 414: Supplier social assessment 2016		
Management approach: Supplier social assessment	GRI 3-3	CSR at Illumina , Sustainability , Responsibility
New suppliers that were screened using social criteria	GRI 414-1	Responsibility , Appendix
Negative social impacts in the supply chain and actions taken	GRI 414-2	
GRI 415: Public policy 2016		
Management approach: Public policy	GRI 3-3	CSR at Illumina , Responsibility
Political contributions	GRI 415-1	Responsibility , Appendix
GRI 416: Customer Health and Safety 2016		
Management approach: Customer health and safety	GRI 3-3	
Assessment of the health and safety impacts of product and service categories	GRI 416-1	
Incidents of non-compliance concerning the health and safety impacts of products and services	GRI 416-2	
GRI 417: Marketing and labeling 2016		
Management approach: Marketing and labeling	GRI 3-3	CSR at Illumina , Access , Responsibility
Requirements for product and service information and labeling	GRI 417-1	Responsibility , Access , Appendix
Incidents of noncompliance concerning product and service information and labeling	GRI 417-2	Appendix
Incidents of noncompliance concerning marketing communications	GRI 417-3	Appendix
GRI 418: Customer privacy 2016		
Management approach: Customer privacy	GRI 3-3	CSR at Illumina , Access , Responsibility
Substantiated complaints concerning breaches of customer privacy and losses of customer data	GRI 418-1	Appendix

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.

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	<u>Access</u>
		Affordability and pricing	HC-MS-240a.2	Description of how price information for each product is disclosed to customers or to their agents	<u>Access</u>
	Product quality & safety	Product safety	HC-MS-250a.1	Number of FDA recalls issued, total units recalled	<u>Responsibility</u>
		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	<u>Responsibility</u> , 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	<u>Sustainability</u>
		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	<u>Sustainability</u> , <u>Appendix</u>
	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	<u>Responsibility</u> , <u>Appendix</u>
		Supply chain management	HC-MS-430a.2	Description of efforts to maintain traceability within the distribution chain	<u>Responsibility</u> , <u>Appendix</u>
		Supply chain management	HC-MS-430a.3	Description of the management of risks associated with the use of critical materials	<u>Responsibility</u> , <u>Appendix</u>
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	<u>Appendix</u>
		Business ethics	HC-MS-510a.2	Description of code of ethics governing interactions with health care professionals	<u>Responsibility</u> , 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

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		
		<p>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.</p>	<p>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.</p>
1.1	Board oversight	<p>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.</p> <p>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.</p>	
1.2	Management role	<p>The Executive CSR Steering Committee comprises a team of senior leaders from across the organization, including the Chief Legal Officer, 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.</p>	<p>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.</p>

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	<p>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.</p> <p>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 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.</p> <p>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.</p> <p>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.</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>We have also committed to 90% landfill diversion and 10% reduction in water intensity at core sites.</p>
2.2	Climate risk and opportunities impact	<p>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.</p>	<p>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:</p> <ul style="list-style-type: none">· 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. <p>The following types of risk were identified in line with TCFD terminology: market, reputation, acute physical, and chronic physical. Each of the risks identified had a low or moderate impact. No risks had a high impact identified which would result in substantive financial, operational, strategic, or reputational impact. Our climate risk and opportunities are not currently expected to be financially material.</p>
2.3	Targets to manage climate risk and opportunities	<p>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.</p> <p>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).</p> <p>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).</p>	<p>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).</p> <p>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).</p> <p>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.</p>

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	<p>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).</p>	<p>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.</p>
3.2	Process to manage climate risk	<p>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.</p> <p>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.</p>	<p>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.</p> <p>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.</p> <p>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.</p>
3.3	Process to integrate climate risk in overall risk management	<p>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.</p> <p>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</p>	<p>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.</p> <p>The following definitions apply to our assessment:</p> <ul style="list-style-type: none">· 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).

TCFD disclosure element		Illumina response	
Metrics & Targets: Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.			
4	Metrics & Targets		
4.1	Climate-related metrics	As a science-based organization, we are compelled to ensure our reduction targets are aligned and verified to a science-based approach. In 2022, we were among the first companies in the world and our industry, and the first genomics company to receive verification of our 2050 net-zero emissions targets by the SBTi Corporate Net-Zero Standard. In 2021, our Scope 1, 2, and 3 emission targets were aligned to a 1.5 °C climate ambition and externally verified by SBTi. We set a long-term target of net-zero carbon emissions by 2050 across our operations and value	chain which received validation from SBTi. Our net-zero target includes all material value chain categories: purchased goods and services, capital goods, upstream transportation and distribution, business travel, employee commuting, and investments. We have identified material categories as all relevant categories that represented 7% or more of our total 2019 Scope 3 emissions inventory baseline. These material categories represented 92% of Illumina's 2019 Scope 3 emissions and established our baseline.
4.2	GHG emission data	Detailed current and historical greenhouse gas emission data is available in Key Performance Indicators	
4.3	Targets to manage climate risk and performance to targets	<ul style="list-style-type: none">· Reach net-zero GHG emissions across Illumina’s direct operations (Scope 1,2) and our value chain (Scope 3) by 2050 from 2019 baseline levels· Reduce Scope 1, 2 absolute GHG emissions 46% by 2030 from 2019 baseline· Reduce absolute GHG emissions from material Scope 3 categories 46% by 2030 from 2019 baseline· Reduce Scope 1, 2 absolute GHG emissions 90% by 2050 from 2019 baseline· Reduce absolute GHG emissions from material Scope 3 categories 90% by 2050 from 2019 baseline· Increase annual sourcing of renewable electricity to 100% by 2030 from 2019 baseline	

Independent limited assurance report to Illumina, Inc.



ISOS Group, Inc. (“ISOS” or “we”) were engaged by Illumina, Inc. (“Illumina” or “Company”) to undertake a limited assurance engagement in accordance with ISAE 3000 and ISAE 3410 covering select information reported (“Reported Information”) for the period beginning January 1, 2024, and ending December 31, 2024 (CY2024).

We have performed our limited assurance engagement in accordance with the International Standard on Assurance Engagements 3000 (ISAE 3000), Assurance other than Audits or Reviews of Historical Financial Information, as well as the International Standard on Assurance Engagements 3410 (ISAE 3410) Assurance Engagements on Greenhouse Gas Statements, issued by the International Auditing and Assurance Standards Board. The engagement covered all entities and all facilities under the operational control of Illumina.

Our review was limited to the Reported Information, and their respective segmentations, comprising of:

Integrating Environmental Sustainability:	Nurturing Our People:
<ul style="list-style-type: none">Energy consumptionRenewable consumption by activity and regionRenewable electricity consumptionEmissionsRegional emissionsGreenhouse gas breakdownCountry-specific Scope 1Country-specific Scope 2 location-basedFacility-specific emissionsEmission intensity ratiosScope 3 emissionsScope 3 emissions: % of total Scope 3 emissionsWaterWaste	<ul style="list-style-type: none">Workforce dataGender dataNew hire dataPromotion dataVeteran data (US)Employee turnover dataOther identities self-reported (US)Benefit and employee bonus/stock planPerformance review and employee surveyCompensation ratioTrainingHealth & safety

We have not performed any procedures with respect to other sustainability-related information and, therefore, no conclusion on information outside of this scope of work is expressed.

Reporting criteria

The assurance process was intended to provide an independent opinion confirming that the Client has complied with procedures for data management at the company and minimized degrees of error (“Reporting Criteria”) by adequately:

- Sourcing utility, waste hauler, vendor and internal data to populate relevant data management systems,
- Enforcing management and quality controls across the reporting period,
- Aggregating and converting metrics into the correct unit of measure, and
- Calculating greenhouse gas emissions.

Inherent uncertainty

The nature of non-financial information and the methods used to determine non-financial information, allow for different, but acceptable measurement techniques which can result in materially different measurements and can impact accuracy and comparability. Furthermore, the nature and methods used to determine such information, as well as the measurement criteria and the precision thereof, may change over time.

The Reported Information has been measured applying the Reporting Criteria which has been adopted solely for the purpose of providing this non-financial information. As such the Reported Information may not be suitable for another purpose. Where significant assumptions or deductions are utilized, they are disclosed. Where direct data was unavailable, the company used industry standards as estimates. The assurance provided therefore does not guarantee or provide certainty over the completeness of reported data.

Illumina’s responsibilities

The Company’s management are responsible for:

- The accuracy and completeness of the information contained in the Reported Information.
- The design, implementation, and maintenance of internal controls relevant to the preparation of the report to provide reasonable assurance that the report is free from material misstatement, whether due to fraud or error.
- Ensuring the Reported Information is fairly stated in accordance with the applicable criteria (“Reporting Criteria”) and for the content and statements contained therein.

Our responsibilities

Our responsibility is to express a limited assurance conclusion in accordance with ISAE 3000 and ISAE 3410 whether the Reported Information has been properly prepared in accordance with the Reporting Criteria and to provide this in a report to Illumina.

Work performed

The procedures we performed were based on our professional judgment. Our work included, but was not limited to:

- Assessing the appropriateness of the Reporting Criteria for the Reported Information.
- Carrying out interviews or reviewing questionnaires from key personnel to understand the systems and controls in place during the reporting period.
- Assessing the systems, processes, and controls to collate, aggregate, validate, and report the data.
- Reviewing a selection of factors and formulae used and calculations performed over the Reported Information.
- Considering the appropriateness of the Reported Information provided by Illumina and any third-party data management system service providers.
- ISOS Group, Inc. | 1000 Elm Street, 17FL, Manchester, NH 03105 | www.isosgroup.com
- Testing a sample of records against underlying records which were either individually material or where there was potential for errors to accumulate to material amounts included:
 - Testing of energy consumption, scope 1 and 2 emissions, water and waste consumption at 11 company facilities in scope of the reporting.
 - Testing of scope 3 emissions across the 10 calculated scope 3 emissions categories.
 - Testing of human capital data aggregated across three regions and 32 countries where company operates, including against EEO-1 reporting for US operations.
- Reperforming a selection of calculations of the Reported Information.

The relative effectiveness and significance of specific control procedures at Illumina and their effect on assessment of control risk at a facility level are dependent on their interaction with the controls and other factors present at individual facilities. We have not performed any procedures to evaluate the effectiveness of controls at individual facilities. We have not conducted any work outside the agreed scope and therefore restrict our conclusion to the above-mentioned subject matter.

Restriction of use

This assurance report is made solely to Illumina in accordance with the terms of our engagement, which include agreed arrangements for disclosure. Our work has been undertaken so that we might state to Illumina those matters we have been engaged to state in this limited assurance report and for no other purpose. Our limited assurance report should not be regarded as suitable to be used or relied on by any party wishing to acquire rights against us other than Illumina for any purpose or in any context. Any party other than Illumina who obtains access to our limited assurance report or a copy thereof and chooses to rely on our limited assurance report (or any part thereof) will do so at its own risk. To the fullest extent permitted by law, we accept or assume no responsibility and deny any liability to any party other than Illumina for our work, for this independent limited assurance report, or for the conclusions we have reached.

Conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Reported Information for CY2024 (ending on December 31, 2024), has not been prepared, in all material respects, in accordance with Illumina’s Reporting Criteria.

Brian Noveck

CSAP Practitioner for, and on behalf of, ISOS Group, Inc.
April 10, 2025

Lauren Anderson

ACSAP Practitioner for, and on behalf of, ISOS Group, Inc.
April 10, 2025

Hannah Emery

Sustainability Analyst for, and on behalf of, ISOS Group, Inc. April 10, 2025



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Illumina Singapore employees cleaning up Coney Island as part of International Coastal Cleanup Day.

Photo credit: Joel Loy

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) uncertainty regarding the impact of our recent inclusion by the China Ministry of Commerce ("MOFCOM") announcement that Illumina is included on its "unreliable entities list," MOFCOM's decision not to permit us to export sequencing instruments into China, as well as tariffs recently imposed or threatened by the U.S. government and its trading partners, and other possible tariffs or trade protection measures; (v) our ability to manufacture robust instrumentation and consumables; (vi) the success of products and services competitive with our own; (vii) 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; (viii) the impact of recently launched or pre-announced products and services on existing products and services; (ix) our ability to modify our business strategies to accomplish our desired operational goals; (x) 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; (xi) our ability to further develop and commercialize our instruments, consumables, and products; (xii) to deploy new products, services, and applications, and to expand the markets for our technology platforms; (xiii) the risk of additional litigation arising against us in connection with the GRAIL acquisition; (xiv) our ability to obtain approval by third-party payors to reimburse patients for our products; (xv) our ability to obtain regulatory clearance for our products from government agencies; (xvi) our ability to successfully partner with other companies and organizations to develop new products, expand markets, and grow our business; (xvii) uncertainty, or adverse economic and business conditions, including as a result of slowing or uncertain economic growth or armed conflict; (xviii) the application of generally accepted accounting principles, which are highly complex and involve many subjective assumptions, estimates, and judgments and (xix) 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 on the progress of the current quarter.

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