Microsoft

We support the Sustainable Development Goals

Microsoft and the United Nations Sustainable Development Goals

2022 Report

“When your technology changes the world, you bear a responsibility to help address the world you have helped create.”

Brad Smith, President and Vice Chair, Microsoft Corporation

and

Carol Ann Browne, Chief of Staff and Executive Communications, Microsoft Corporation

in

Tools and Weapons: The Promise and Peril of the Digital Age

September 2019

(Updated: Paperback, September 2021)

Microsoft

Contents

Review of UN Secretary-General's Priorities for 2022

> "We must go into emergency mode to put humanity at the center of technology."

António Guterres

Secretary-General, United Nations

In January 2022, United Nations (UN) Secretary-General António Guterres outlined his priorities to the UN General Assembly for the year. Guterres raised "five alarms" the world must combat: the coronavirus (COVID-19) pandemic, reforming global finance, climate emergency, technology and cyberspace, and peace and security.

Responding to these alarms, Guterres cited his report, "Our Common Agenda," which strengthens Agenda 2030 and the Sustainable Development Goals (SDGs)—and offers a roadmap to gather the world together, in solidarity, to address these governance challenges and reinvigorate multilateralism for the 21st century.

Guterres placed a special spotlight on the role technology must play to create a more equitable world: "We must go into emergency mode to put humanity at the center of technology. Technology should not use us. We should use technology." His message also reinforced the need for an "ongoing coordinated approach on cybersecurity to protect civilians and civilian infrastructure." He put forward the Global Digital Compact, which will bring together governments, the private sector and civil society "to agree on key principles underpinning global digital cooperation …."

Reflecting on the journey to our current position, he stated, "all these challenges are, at heart, failures of global governance. From global health to digital technology, many of today's multilateral frameworks are outdated and no longer fit for purpose. They do not protect critical global public goods that are intended to support humanity's well-being." It is the responsibility of all stakeholders working to advance the SDGs to collaborate and reinvigorate our global frameworks and systems to deliver more human-centric and equitable results.

Source: Secretary-General's remarks to the General Assembly on his Priorities for 2022, 21 January 2022

Welcome

> “... We must ensure the technology we create benefits everyone on the planet, as well as the planet itself.”

Brad Smith

President and Vice Chair, Microsoft Corporation

Earlier this year, I spent time in Ghana with entrepreneurs in the Young African Leadership Initiative. They are developing new skills that will help propel young African leaders as they spur growth and prosperity, strengthen democratic governance, and enhance peace and security across Africa. The work at YALI is also closely aligned with the United Nations Sustainable Development Goal 8, which seeks to promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all. Nearly one in three Africans are between the ages of 10 and 24, and approximately 60 per cent of Africa's total population is below the age of 35. This generation of young people represents the bright future in store for Africa, and the entire world.

These young leaders are living proof of the importance of the SDGs, not only the ambition of this effort, but of the results, of the people and communities who benefit when we put ideas and technology into action to improve opportunity and access for others. They are also just one example of many of these ideas and collaborations in action.

The scale and size of the challenges the world faces today, like poverty, inequality, and climate change, require all of us to join forces and develop new solutions, many of which can be enabled or accelerated through digital technology. As we aspire to live our mission to empower every person and every organization to achieve more, we must ensure the technology we create benefits everyone on the planet, as well as the planet itself. This includes partnering to advance progress across the UN's 17 SDGs by contributing our creativity, expertise, and know-how to unleash the power of digital technology.

Microsoft has a 20-year history of working with the UN, and as an SDG advocate, I'm both humbled and energized to help lead this effort on critical issues involving the intersection of technology and society, including how it can help us earn trust, create a more environmentally sustainable future, support inclusive economic opportunity, and protect fundamental rights.

This work has never been more critical. As the world continues to confront a global pandemic, and conflict, these partnerships across the private and public sector, government and civil society are of utmost importance. It truly is an SDG moment, a window of imperative—and of opportunity—to work toward a better future, for all, together.

Brad Smith is Microsoft's president and vice chairman. He was appointed to be an SDG advocate in 2021.

In his role as SDG Advocate, Mr. Smith aids UN Secretary-General António Guterres by focusing on bridging the digital skills gap and will emphasize setting bold goals focused on environmental sustainability.

UN SDG Advocates as of May 2022

Brad Smith, President and Vice Chair, Microsoft, remains one of the UN Sustainable Development Goals Advocates, appointed by UN Secretary-General António Guterres

Prime Minister Mia Mottley of Barbados (co-chair)

President Justin Trudeau of Canada (co-chair)

Her Majesty Queen Mathilde of the Belgians

His Royal Highness Muhammadu Sanusi II, Emir of Kano

Her Highness Sheikha Moza bint Nasser of Qatar

BLACKPINK, K-pop girl group

Richard Curtis, screenwriter, producer, and film director

Hindou Ibrahim, activist for climate action and indigenous rights

Graça Machel, founder and Chair of the Board, Graça Machel Trust

Dia Mirza, actor, UN Environment Programme Goodwill Ambassador

Valentina Muñoz Rabanal, STEM activist

Edward Ndopu, public intellectual, humanitarian, and founder of A Billion Reasons

Jeffrey D. Sachs, Director, The Earth Institute, Columbia Climate School

Kailash Satyarthi, Nobel Peace Prize laureate, founder of Kailash Satyarthi Children's Foundation

Brad Smith, President, Microsoft Corporation

Forest Whitaker, founder and CEO, Whitaker Peace & Development Initiative, UNESCO Special Envoy for Peace and Reconciliation

Foreword

> "We are putting forward one example of a company drawing on innovation, investment, and partnership to advance the SDGs."

Fred Humphries
Corporate Vice President, US Government Affairs, Corporate, External and Legal Affairs (CELA), Microsoft Corporation

Microsoft has contributed to the Sustainable Development Goals since 2015,[1] when the United Nations created the Global Goals as a shared mandate to unite all Member States and stakeholder groups. We strongly support the SDGs as a set of 17 universal goals for all parties to achieve by 2030. The UN recognizes the remaining eight-year stretch to 2030—the decade for action—requires mobilizing everyone to deliver the SDGs urgently.

At Microsoft, we find inspiration in thinking about the SDGs (and the decade of action) as a historic calling to elevate societies and empower people around the world to reach new frontiers. In the past seven years, we have developed and evolved partnerships that better position communities to overcome poverty, inequality, the effects of climate change, and access to universal healthcare—to name a few Global Goals.

We believe technology can be a positive force in transforming our world and people's lives when it is developed and used in trusted, responsible, and inclusive ways. As a company, we have deeply reflected on this transformative promise and its potential remit. In March 2020, Microsoft created its UN Affairs team to deepen our relationship with the UN. In that time, we have been engaging in meaningful activities across the UN community and building dynamic relationships to advance the SDGs through multistakeholder collaboration.

For example, Microsoft partnered with the World Health Organization (WHO) to develop big data solutions that will greatly increase the scientific capacity of WHO to address the coronavirus pandemic and future health challenges. We recently joined the UN Environmental Programme (UNEP) and a diverse group of organizations in the Carbon Call, which aims to solve accounting challenges associated with carbon emissions and removal that companies face for all greenhouse gas (GHG) emissions and across all scopes of emissions.

1 https://www.un.org/sustainabledevelopment/blog/2015/10/un-climate-solutions-award-winners, https://www.un.org/sustainabledevelopment/blog/2015/12/with-high-level-forum-un-general-assembly-aims-to-narrow-digital-divide/#

We partner with the United Nations Children's Fund (UNICEF) to provide education for displaced young people through the Learning Passport, a digital remote learning platform developed with. This builds on an existing partnership with the UN High Commissioner for Human Rights on Rights View, which better positions the Office to monitor human rights developments around the world.

For the third year in a row, we have produced this *Microsoft and the United Nations Sustainable Development Goals Report* to share the humble contributions that our company is making to achieve the 17 SDGs—typically by exercising the power of digital technology. In this year's report, you will also hear from Microsoft executives and external partners about the joint efforts we are making to fast-track progress on the SDGs.

In my newly expanded role, overseeing the Microsoft UN Affairs team, I look forward to building on these efforts with the UN community and to contributing to multistakeholder initiatives necessary to achieve the SDGs.

In his new role overseeing the Microsoft UN Affairs team, Mr. Humphries will focus on contributing to the UN community and building on multistakeholder initiatives necessary to achieve the SDGs.

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May 2022 Corporate, External, and Legal Affairs (CELA)

Microsoft's reporting on the Sustainable Development Goals is coordinated by the Microsoft UN Affairs team. Positioned in the Microsoft CELA department, the Microsoft UN Affairs team focuses on advancing Microsoft partnerships with the UN and its agencies, building relationships with UN representatives, identifying new opportunities for partnerships, building stronger connections between Microsoft and UN teams, advocating for the UN's priorities within Microsoft, and working across the company to support Microsoft teams in their engagements and advocacy with the UN community.

Microsoft's commitment to societal impact

In addition to complementing our mission, our contributions to the Sustainable Development Goals align with our company's purpose—to ensure the technology we create benefits everyone on the planet, as well as the planet itself.

The world is confronting massive challenges, including ongoing health, economic, environmental, and humanitarian crises. While there is great potential for technology to help address these issues, the rapid pace of technology change is raising new challenges and intensifying existing inequities in our communities.

We are witnessing a drastically widened skills and employability gap; an intensified unmet demand for access to broadband and the critical services it provides; and increased urgency to protect the planet and the fundamental rights of everyone on it. It is critical that we apply technology and innovations to address these challenges without sacrificing core values like trust, privacy, security, and transparency.

To help people and organizations everywhere achieve more, we focus on four interconnected commitments:

Support inclusive economic opportunity

We believe economic opportunity should be inclusive—for every country, every community, every organization, and every person. This starts with increasing access to technology, digital skills, and data, and extends to how we promote accessibility and support public health.

Protect fundamental rights

We unequivocally support the fundamental rights of people, including our efforts to defend democracy, address systemic racial injustice and inequity, and protect human rights—within our own ecosystem and for people across the globe.

Create a sustainable future

Climate change is the defining issue of our generation. Addressing it requires swift, collective action and technical innovation. We have outlined ambitious commitments and detailed plans to achieve them, including to be a carbon-negative, zero-waste, and water-positive company by 2030. While our own actions are important, our most important contribution will come from enabling others to use technology to set and achieve their own climate goals.

Earn trust

To drive positive impact with technology, people need to be able to trust the technologies and the companies behind them. At Microsoft, we are optimistic about the benefits of technology, yet clear-eyed about the challenges. Every day, we strive to earn the trust of our customers, employees, the communities we serve, and the governments that represent them through a commitment to privacy, security, responsible artificial intelligence (AI), digital safety, and transparency.

Together, we can achieve more

Now is the time for urgent action. Those who can do more should do more. As the needs and expectations of our employees, our customers, our shareholders, and our communities increase, we believe we can and should rise to meet them. That means going beyond setting ambitious commitments to measuring our progress and sharing what we learn—so that we and others can do better.

The challenges facing people and the planet are complex, and no individual company, industry, or country can solve them alone. That's why we work across sectors and borders to foster collective action and amplify impact including through our work on the UN SDGs—driving progress faster and wider than we could on our own.

Our reflections on technology and innovation as a means of implementation

When the UN General Assembly adopted the 2030 Agenda for Sustainable Development, along with a set of 17 SDGs and 169 associated targets, the UN also recognized technology, innovation and capacity building, and data as some of the essential "means of implementation" for delivering the 2030 Agenda.

According to the report of the UN Secretary-General's High-level Panel on Digital Cooperation, "Of the SDG's 17 goals and 169 targets, not a single one is detached from the implications and potential of digital technology. From ending extreme poverty to promoting inclusive economic growth and decent work, to reducing maternal mortality, to achieving universal literacy and numeracy and doubling the productivity of small farmers—progress is intertwined with the use of digital technology and new forms of digital cooperation." [2]

At Microsoft, we share the position expressed in the High-level Panel's report. We believe the digital transformation of the global economy can make a difference and help address the challenges underlying the UN Sustainable Development Goals. That is why we work to place technology in the hands of those who are addressing our most pressing societal challenges—so they can have a greater impact.

The Microsoft mission—to empower every person and every organization on the planet to achieve more—aligns strongly with the UN global agenda for sustainable development from 2015 through 2030. Partnerships will play a crucial role as vehicles for mobilizing and sharing knowledge, expertise, technologies, and financial resources.

When it is used in trusted, responsible, and inclusive ways, digital technology can play an instrumental role in achieving many Global Goals, including ending poverty; combating inequalities; building peaceful, just, and inclusive societies; protecting human rights and promoting gender equality; and ensuring the protection of the planet and its natural resources in all countries. Accordingly, our commitment to the Global Goals is reflected in how we apply our technology, partnerships, and resources to create empowerment opportunities and to serve the needs of communities around the globe.

Each of the Global Goals presents challenges bigger than any one organization—or even one sector of society—can accomplish alone. With just eight years to go to deliver on the SDGs, the UN Decade of Action is underway—mobilizing more governments, civil society, and businesses and calling on all people to urgently make the Global Goals their own. Microsoft believes in its shared responsibility as a business and in its role in society with a mission that focuses on empowering people. At Microsoft, we seek to apply the unique assets that a technology company of our scope and scale has toward the global effort needed to achieve the SDGs.

[2] "The Age of Digital Interdependence: Report of the UN Secretary-General's High-level Panel on Digital Cooperation," June 2019: page 9. https://www.un.org/en/pdfs/DigitalCooperation-report-for%20web.pdf

We realize that technology is not a silver bullet. Leaders across the public and private sectors must also pair technology-enabled initiatives with policies that benefit and enable all people.

Section One: The SDGs we focus on

A number of Microsoft initiatives are directly and indirectly advancing progress on all 17 SDGs. In Section One of our report, we'll first discuss the four SDGs that we currently **focus** on as a company. Then, in Section Two, we'll show how we are **contributing** to each of the other 13 SDGs. Some of our initiatives are contributing to the sustainment of specific targets; others are part of the broader effort required to address the societal challenge that the respective SDG seeks to tackle. Although our unique strength lies in digital technologies, we realize that technology is not a silver bullet. Leaders across the public and private sectors must also pair technology-enabled initiatives with policies that benefit and enable all people.

This section offers information and links to relevant Microsoft programs, partnerships, and support initiatives to indicate how we are helping address the four SDGs we are focused on as a company. We hope these examples inform broader, additional contributions neexqded for the important work being done to deliver the promise of the SDGs in the eight-year stretch ahead.

Microsoft Philanthropies in action

Kate Behncken

Vice President, Microsoft Philanthropies, Microsoft Corporation

Microsoft Philanthropies has been investing significant resources in Quality Education (instrumental to Goal 4) and initiatives that promote Decent Work and Economic Growth (instrumental to Goal 8). What is the impact of those investments, not only in terms of the beneficiaries, but also in terms of the potential contribution of the private sector to SDGs, which could be deemed the remit of national governments?

We anchor a lot of our work around digital equity. We know that talent is everywhere; opportunity is not. Everyone needs access to the technology, skills, and opportunity to pursue in-demand jobs and improve their livelihoods. Our approach, whenever and wherever possible, is to work collectively and in partnership with governments to bring the best practices from the private sector and combine them with the government's ability to scale impact. We do this by leveraging public-private partnerships between nonprofits

> **"These goals are too large for any one company, government, or industry to achieve alone."**

and governments to tackle Goal 8. For example, in Latin America, we bring our digital skilling curriculum to our nonprofit partners, EIDOS and Trust for the Americas. EIDOS offers a digital tutor program connecting peers as tutors both in person and online. The Trust trains government trainers in Brazil, Mexico, Colombia, and Ecuador so that, together, we build the capability and capacity of the government to reach millions of learners and scale our collective impact. The Trust then connects those skilled individuals with jobs and livelihood opportunities in each respective country.

The SDGs also call for public-private partnerships to address disaster recovery (Target 13.1), the needs of children (Target 16.2), and the protection of refugees and displaced people (Target 10.7). What role can the private sector play as a partner on these fronts?

These goals are too large for any one company, government, or industry to achieve alone. It will require that all of us work together at new levels of scale. Microsoft is working with partners in the private sector, the UN, governments, and other stakeholders to help build the capacity of organizations across sectors to respond to humanitarian crises. We help organizations leverage technology to scale the work they do and reach more of the beneficiaries they serve. We also work alongside other private-sector companies to share information on areas at risk and identify existing programs that others may be able to leverage to mobilize more quickly when needs arise. Our disaster response and innovation investments through the AI for Humanitarian Action programs enable humanitarian response organizations to both prepare for and respond to disasters. Since January 2021, we have responded to nine global emergencies, committing over $60 million in resources. Our AI for Humanitarian Action program made over 20 investments, producing projects that helped reunite Syrian refugees in Turkey, identify malnutrition in India, and support the Red Cross in damage assessment.

Our UNICEF and Generation Unlimited partnership is another example of how we can bring together a number of Microsoft's assets—in-demand digital, foundation and technical skilling curriculum, Microsoft Community Training Platform (MCT), a proven execution model, and funding—and combine them with the experience, resources, scale, and influence of UN organizations to create impact globally. It is critical that we continue to evolve and look at new models that build on the strengths of all stakeholders.

There is also an opportunity to tap into the energy and generosity of our employees. Because of Microsoft's giving match program, employees are empowered to do more for the causes they care about in the communities where they live and work. In fiscal year 2021, employees rallied together to provide $214 million, inclusive of company match, to help nonprofits accelerate their missions. Microsoft employees have long supported the SDGs, and we believe our employees' time, money, and skills are valuable resources to help support nonprofits around the world.

In the context of the coronavirus pandemic, what can the private sector do to contribute to early warning, risk reduction, or risk management of national and global health risks (Target 3.d)?

One of the biggest challenges we have in solving humanitarian issues, including global health, is data fragmentation. Many organizations have a sliver of information, but we do not have a way to develop a broad view that will help us design more effective policy and response.

Microsoft and Avanade are collaborating with WHO to create the world's first comprehensive, end-to-end data solution for global health. As the "new home of health data," the World Health Data Hub will transform data ingestion from multiple sources, providing a secure environment for countries to upload and validate their data while leveraging the latest technology in predictive analytics and data visualization. This will allow us not only to respond to current crises, but also to identify systemic issues to inform policy, drive intervention, and save lives.

Microsoft also worked with UNICEF to improve the security and infrastructure of the technology used to track and monitor the distribution of vaccines from manufacture through delivery to the COVAX facility, the worldwide COVID-19 vaccine access initiative. We

joined other leading companies on the Global Task Force on Pandemic Response, a public-private partnership developed by the US Chamber Foundation to provide a unified platform for businesses to mobilize and deliver resources to assist pandemic response efforts in areas of the highest need around the world. This included a collaboration with the US-India Business Council to launch the COVID-19 Business Response Portal, an information sharing platform for US businesses to offer essential in-kind products and services needed by the government of India. The portal monitored developments in India, compiled a list of the most critical supplies needed on the ground, and recommended nonprofits as recipients for cash donations. Further, it is a model that can be reused in the future.

These are just a few examples of how partnerships across the public and private sectors can foster solutions that can help overcome some of the world's biggest challenges.

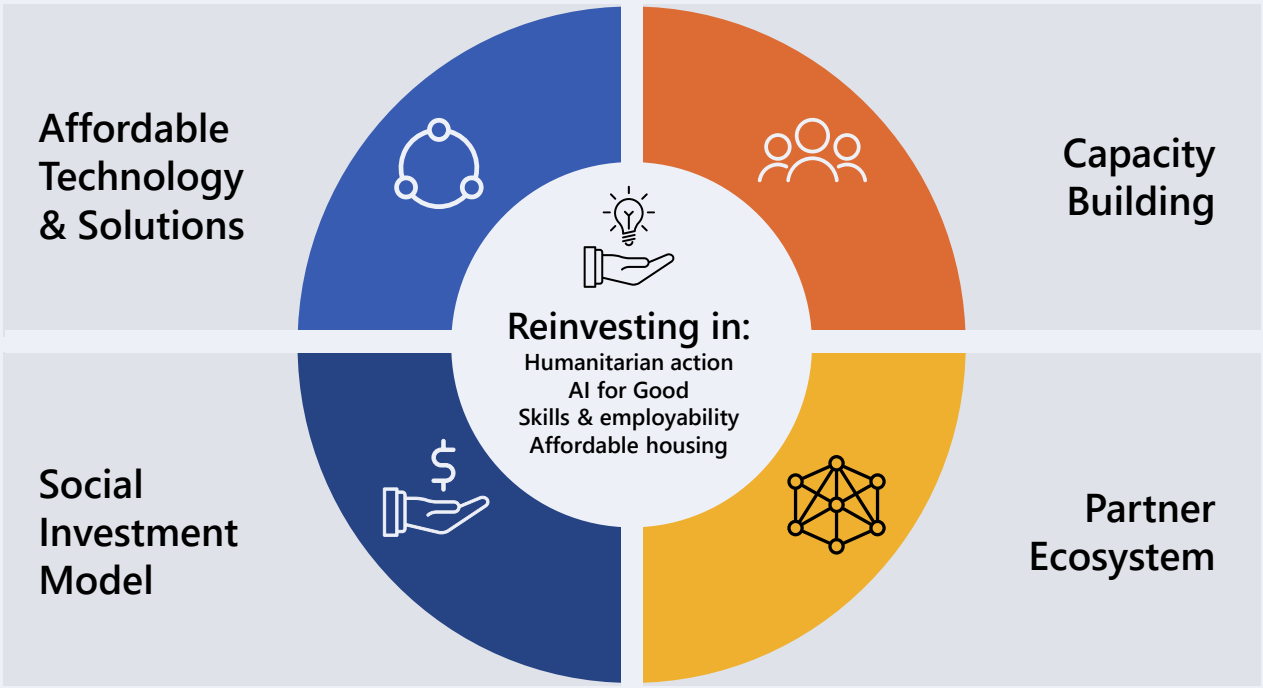
Our philanthropic model: Digitally empowering UN organizations and nonprofits

Microsoft is committed to serving nonprofit and UN organizations with modern cloud technology to address our most pressing societal challenges. This commitment includes providing relevant and affordable cloud technology so they can accelerate social impact. To further this objective, Microsoft created the Tech for Social Impact team, part of Microsoft Philanthropies. Tech for Social Impact is powered by a sustainable business model where profits from this team are reinvested into social good initiatives like affordable housing, skilling and employability, humanitarian action, and AI for Good, as well as the ability to serve even more nonprofits globally with cloud technology.

The Microsoft Tech for Social Impact team has committed to investments in a range of solutions and innovations:

- Provided $2.5 billion in technology grants and discounts to some 295,000 nonprofits. Of that total, 245,000 used our modern cloud technology in fiscal year 2021.
- Granted free software to nonprofits with 10 or fewer employees, which make up 80 per cent of the world's 4 million nonprofit organizations.
- Created Microsoft Cloud for Nonprofit to deliver solutions to meet the specific needs of nonprofits—such as fundraising and mobilizing volunteers—and to help increase their scale and impact.
- Expanded grants and discounts to 75,000 aged-care nonprofits that continue to be at the frontlines of the pandemic.
- Launched the Digital Skills Center for Nonprofits, a learning platform with over 70 courses in five languages, that has reached over 125,000 nonprofit staff to date.

Tech for Social Impact Model



Goal 4: Quality Education

Microsoft empowers education institutions, educators, and students to enable inclusive, engaging, and immersive learning. The world of education is changing faster than ever—as are the skills that students will need for the real economy by the time they graduate. Target 4.4 aims to substantially increase the number of youth and adults with relevant skills for decent employment, calling special attention to technical skills and information and communications technology (ICT) employment training. Microsoft is working at all levels of education to transform for the future and support this goal.

Our programs

- Through Microsoft Philanthropies, we are investing our resources and our voice to equip people, schools, teachers, and students with digital skills and computer science education. To achieve our goal, we focus our investments in three core areas: bringing industry volunteers to secondary schools in the United States, Canada, and Mexico to teach computer science; building the capacity of nonprofit organizations and education providers to scale their impact; and

4 QUALITY EDUCATION

We are helping schools transform learning.

HIGHLIGHT

The Learning Passport, a partnership between Microsoft and UNICEF, is a digital platform that facilitates learning opportunities for children and young people affected by conflict and natural disasters. Specifically, it helped ensure continuity of education during the coronavirus pandemic. As of April 2022, the Learning Passport has surpassed 2 million users worldwide and is currently live across 20 countries, including Bangladesh, Egypt, Honduras, Jordan, Kosovo, Laos, Lebanon, Puntland-Somalia, Timor-Leste, Ukraine, and Zimbabwe, and more than 25 countries are in the deployment process. Education leaders can choose to adopt it as their national learning management system or use it to complement existing digital learning platforms to support children's education. Consult this summary and video for an overview of the platform.

We built on the Learning Passport and our partnership with UNICEF to co-create Passport to Earning. Passport to Earning is another transformative global digital learning platform for young people around the world to help them identify and acquire the skills they need to secure a job. It offers free digital skilling, role-based skills, foundational and technical skills, certifications, and ultimately employment outcomes so young people can secure an income. The goal is to help more than 10 million young people (ages 15-24) in 10 countries access the platform, skills training, and employment opportunities over the next three years.

supporting advocacy and collective action to promote inclusion of computer science in formal education. From July 2020, through April 2022, we reached millions of students and young people with quality digital skills experiences and computer science education, helping prepare them to pursue today's jobs and tomorrow's opportunities. Annually, in partnership with our grantees, we train more than 150,000 teachers to teach computer science, equipping them with the skills and resources to reach millions of students with high-quality, inclusive computer science education.

- Microsoft Philanthropies manages the Technology Education and Literacy in Schools (TEALS) program that connects classroom teachers with tech-industry volunteers to create sustainable computer science programs. Our free programs and support help students develop science, technology, engineering, and math (STEM) skills. In 2020, as part of Microsoft's commitment to addressing racial inequity, TEALS began an expansion into 13 states and the District of Columbia in the United States, with the goal of bringing computer science education to an additional 620 high schools primarily serving Black and African American students by 2025.
- Microsoft is a founding member of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) Global Education Coalition for the pandemic response. The coalition brings together more than 175 members from the UN, civil society, academia, and the private sector to facilitate inclusive learning opportunities, learning continuity, and the safe return to school, innovation and digital skills development. It also endeavors to prevent widening gender inequalities in education within the context of the coronavirus pandemic and beyond.
- The Imagine Cup Junior Virtual AI Hackathons series and Minecraft Global Build Challenge: Peace with Nature are two of the initiatives developed under the Global Education Coalition umbrella:
  - Microsoft, KPMG, and UNESCO have organized four hackathons designed to prepare students around the world for the AI-fueled economy of the future. The overarching theme of the hackathons was **AI for Good**, inviting participants to explore the real-life potential of AI and envision ways it can be used to bring positive change to the world. **The hackathons' objectives were modeled after Sustainable Development Goals**.
  - The digital events have helped **more than 400 students**

master the basic mechanics of AI and how to frame AI problems, learn how to adapt to a constantly changing intelligence landscape, and build skills that will allow them to take ethical control of the development and use of AI. Participants have developed domain-specific skills in statistical data, computer vision, and natural language processing. By engaging in practical exercises, they also have learned about data collection, data cleaning, model choice, and statistical testing while working with regression, decision trees, and random forests to solve sizeable problems.

The series included an **all-girls event in an attempt to bridge the gender gap in STEM fields** and expand girls' access to hands-on, high-quality learning.

- In 2021, Microsoft and UNESCO launched the Minecraft Global Build Challenge: Peace with Nature, a global build competition inviting students around the world to design sustainable solutions for communities that would enable inhabitants to live in harmony with nature. To ensure the practicality of their solutions, the students were asked to **base their ideas on the SDGs**. Participants worked in teams to build detailed models for their design within a custom world made available in Minecraft: Education Edition. The teams then documented their builds and submitted short video presentations to be reviewed by a jury of UNESCO staff and educators. **Students from 109 countries spent thousands of hours creating highly intricate and impressive designs, exploring broad themes like sustainable community and biodiversity as well as locally relevant topics such as coral protection**. Other students showed innovation in areas such as energy generation, food production, and transport. Discover the winning projects.

- Microsoft Learn for Educators curates online learning paths and supporting instructor-led training materials into the classroom. Eligible educators and faculty members at colleges, universities, community colleges, polytechnics, and secondary schools can access Microsoft's ready-to-teach curriculum and teaching materials aligned to industry-recognized Microsoft certifications. These certifications augment a student's existing degree path and validate the skills needed to be successful across various technical careers.In response to the coronavirus pandemic, Microsoft rapidly created an

extensive toolkit of materials and training opportunities for educators, parents, and students to adopt remote and hybrid learning.

Our partnerships

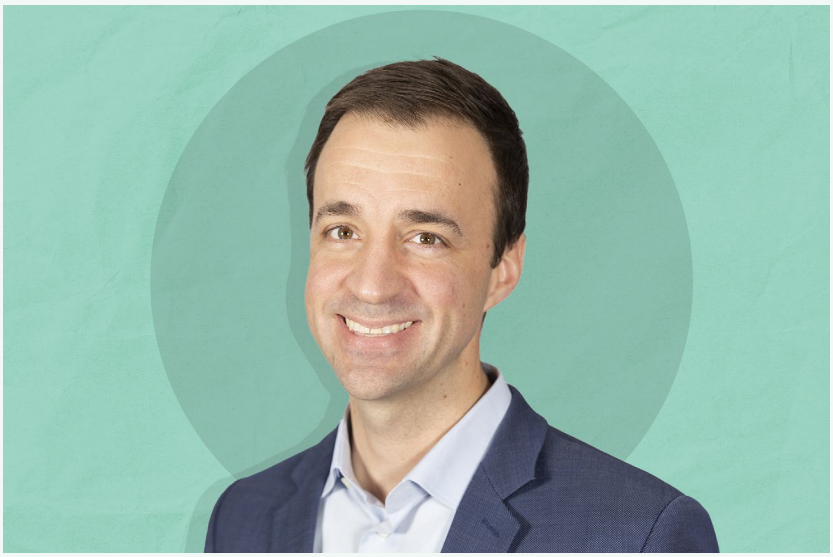
- As part of the Microsoft Airband Initiative, BLUETOWN, a Danish internet service provider (ISP) operating in Ghana, is looking to deliver accessible, locally relevant educational content, digitized by eKitabu and hosted on the BLUETOWN local cloud.
- We are building on our work with Teach Access, an industry collaboration to address the critical need to enhance students' understanding of digital accessibility, to support a cultural shift across the tech sector that will help create new technologies with the needs of people with disabilities in mind.
- The Dutch municipality of Hoorn, Microsoft, and ITPH Academy, working with Horizon College, have partnered to create a 16-week program to retrain people currently out of work. Microsoft also is partnering with Horizon College to expand the Microsoft Datacenter Academy.

Our support

- Microsoft is supporting ministries of education in Bahrain, Azerbaijan, and across the world to rapidly create remote and hybrid learning strategies, utilizing Microsoft Teams as a learning platform. We also are deploying teacher training webinars through Microsoft Global Training Partners to help ensure that teachers can use technology tools effectively. Microsoft has donated to Kodcentrum, a nonprofit that introduces young people in Sweden to computer science, programming, and digital skills free of charge. The funds support middle-school teachers and educators at 10 schools in Staffanstorp, 25 schools in Gävle, and 14 schools in Sandviken with online training and webinars to assist and inspire digital lessons that align with the national curriculum. The donation also supports online hackathons and equips volunteers with tools to guide students through coding projects. Microsoft tools are enabling universities across the globe to continue operating and offering quality education—despite the coronavirus pandemic shutdowns. For example, world-leading Imperial College London quickly scaled up usage of Microsoft Teams to deliver lectures and to offer virtual common rooms for students and faculty.
- The Science Center of Iowa, with a grant from the Microsoft Community Empowerment Fund, is creating an Innovation Lab for children, parents, and educators to use technology to foster creativity and problem solving.

For more initiatives related to Goal 4, see our efforts to empower young women and girls and to prepare them for careers in STEM fields (Goal 5), bring digital training to 25 million people worldwide and provide professional skills to refugees and those new to the technology industry (Goal 8), extend internet connectivity to underserved parts of the world (Goal 9), teach coding and technology skills to underrepresented groups (SDG 10), use AI to preserve cultural heritage (Goal 11), and promote media literacy to reduce the impact of misinformation (Goal 16).

Transforming the future



> “Young women, young people with disabilities, and rural youth will benefit most from the platform.”

Dr. Kevin Frey

CEO, Generation Unlimited

What has been the biggest surprise in your partnership/ collaboration with Microsoft?

Generation Unlimited (GenU), a global public private-youth partnership anchored in UNICEF, aims to skill the world's young people and connect them to opportunities. GenU is really proud of its partnership with Microsoft, a board member and one of our founding partners. The biggest surprise in our collaboration has been how quickly we were able to leverage Microsoft's expertise and existing technology to expand skilling, employment, and social impact opportunities for young people, especially those most disadvantaged.

Passport to Earning (P2E), whose founding partners are Accenture and Dubai Cares, will provide young people aged 15-24 with free, world-class and job relevant skills training, and position them for job opportunities. Built on Microsoft's Community Training platform, it offers online digitized curricula curated at the national level, with content provided by public- and private-sector partners. P2E is currently being developed in India, connected to the government's education system, and will be activated in Q2 2022 to deliver skills training through blended means for 5 million young people, including 2.5 million young women. In its initial three-year phase—which is being implemented across 10 to 15 countries, including India, Brazil, Bangladesh, Niger and Nigeria—P2E aims to skill over 10 million young people, including at least 5 million young women. Young women, young people with disabilities, and rural youth will benefit most from the platform.

Microsoft has shown incredible leadership throughout this collaboration. They have exhibited a true partnership spirit, bringing along other companies to contribute to P2E and transform it into the true public-private-youth platform that it is today.

Goal 17 calls for revitalized partnerships to achieve the SDGs. Is the private sector fulfilling its potential as a contributor to SDGs?

There are businesses that are making significant contributions, but I wouldn't say that the potential has been fulfilled for the private sector as a whole. The

private sector has such a critical role to play in achieving the SDGs and solving global problems. It provides 9 out of 10 jobs in developing countries—which is key for lifting people out of poverty—and is well positioned to help skill young people for the jobs of the future. It can create pathways to decent employment, which will reap gains for future generations, and contribute to multiple SDGs.

At GenU, we would love to see more corporations contributing their technology, innovations, resources, and networks to scale up skilling and job opportunities for young people. There is space for them to join hands with the public sector and young people themselves as our corporate founding partners—Microsoft, Unilever, PwC, and SAP—have done, in true public-private youth partnerships, and bring others on board.

We also need to be working with the public sector to facilitate an enabling environment for businesses to contribute. This is where GenU plays a key role. We facilitate the public-private-youth partnerships that are essential to scale impact with and for youth and facilitate progress towards the SDGs, including Goal 17.

In the 2030 Agenda for Sustainable Development, "financial resources, technology development and transfer, and capacity building" are listed as three means of implementation for the SDGs. Where is the private sector falling short?

I think all three are equally important and can be strengthened. Our partnership with Microsoft on Passport to Earning is an example of how all three of these come together within one programmatic solution. Microsoft is contributing financial resources to scale up the platform—as well as its technology through its Community Training platform—and supporting capacity building of our partners to adapt and implement the platform in different country contexts and to reach marginalized populations.

What needs to be emphasized even more, and what has been a defining feature of our partnership with Microsoft, is not just technology development and transfer but innovation cooperation. Really partnering in a substantive and meaningful way to co-create innovative solutions with young people can drive impact and create transformative change.

How should companies think about what truly counts as "sustainable" when they report on the SDGs?

Of course, companies should be reporting on their impact on environmental, social, and economic well-being, which together contribute to sustainability.

An important part of sustainability is looking at long-term measures of well-being. This is a particular focus of our partnership with Microsoft on the Passport to Earning platform. We do not just want to measure and report on the number of young people who have access to the platform. We want to measure the number of young people who became certified through the platform and obtained decent employment opportunities. In the longer term, we also want to look at how long they have been employed and how their quality of life has improved.

We are integrating the platform into government systems, which is important for scale—to reach as many young people as possible—but is also critical for sustainability. And I would add that when considering sustainability, we should also be looking at the extent to which young people have been meaningfully engaged in designing, implementing, and evaluating programs. They are our future and need to have a leadership role in creating change, because they will be the ones who will sustain it in the longer term.

Goal 8: Decent Work and Economic Growth

The UN recognizes the right to work as a fundamental human right. Promoting decent work and economic opportunity is a cornerstone for success to the SDGs, and it is critical to achieving progress in alleviating poverty and in promoting health and well-being. Target 8.2 recognizes the importance of technological upgrading and innovation to achieve higher levels of economic productivity. Microsoft employs more than 190,000 people worldwide and is committed to providing skills training and economic opportunity in the communities where we operate with a focus on equitable, inclusive growth spurred by access to technology.

Our programs

- Microsoft's Skills for Jobs program will help 10 million people from underserved communities globally gain the digital, foundational, role-based, and technical skills and certifications to secure jobs in the digital economy by 2025, especially in growing fields like cybersecurity.
- Since 2020, as a part of our company-wide commitment to addressing racial inequity in the United States, Microsoft

8 DECENT WORK AND ECONOMIC GROWTH

Annually, we support more than 250 nonprofit partners around the world.

HIGHLIGHT

In June 2020, Microsoft launched an initiative to help 25 million people worldwide acquire the in-demand digital and foundational skills needed to succeed amid the economic impacts of the coronavirus pandemic. Our goal is to help those who have become unemployed acquire the skills they need to remain competitive in the job market. The initiative brings together every part of our company, combining existing and new resources from LinkedIn, GitHub, and Microsoft. As of **December 31, 2021**, we have helped 42 million people gain critical digital skills.

This initiative is grounded in three areas of activity:

- The use of data to identify in-demand jobs and the skills needed to fill them.
- Free access to learning paths and content to help people develop the skills that these positions require.
- Low-cost certifications and free job-seeking tools to help people who develop these skills pursue new jobs.

This digital skilling initiative builds on data and digital technology. It starts with data about jobs and skills needed in the future from LinkedIn's Economic Graph. Using LinkedIn's unique data set, we have identified 10 job types that are most in-demand in today's economy and well-positioned for growth. For each of these 10 jobs, the initiative provides free access to content in LinkedIn Learning and—where applicable—Microsoft Learn and the GitHub Learning Lab, coupled with Microsoft Certifications and LinkedIn job-seeking tools. Microsoft is backing the effort with $20 million in cash grants to help nonprofit organizations worldwide assist people who need it most. One-quarter of this total—$5 million—will be provided in cash grants to community-based nonprofit organizations led by and serving communities of color in the United States.

has been investing in and partnering with 50 Black- or African American-led nonprofits that offer skills development and economic opportunities to the Black and African American community. This community-led program is designed by a steering committee that includes external partners from the workforce, education, foundation, and nonprofit sectors, as well as representation from many Microsoft stakeholders and internal teams.

- Microsoft's Africa Development Center provides a premier center of engineering for world-class African talent to create innovative solutions in areas such as healthcare, agriculture, and finance, fueled by AI and machine learning. Its two initial sites are in Lagos, Nigeria, and Nairobi, Kenya.
- In November 2021, Microsoft announced the creation of the Africa Transformation Office (ATO) to enable digital transformation powered by Africans for Africa. The ATO will focus on enabling growth and fueling investment in four essential development areas: digital infrastructure, skilling, small and medium enterprises, and startups.
- Microsoft directly trains learners and job seekers from underserved communities. For example, Microsoft Software and Systems Academy provides transitioning service members and veterans—including those with clearance—with training in critical career skills required for today's growing technology industry. The Microsoft Leap Apprenticeship Program also recruits and trains talent from nontraditional backgrounds for careers in the technology industry worldwide.
- Microsoft required device suppliers to follow Microsoft's Social and Environment Accountability requirements to protect legally entitled labor rights for all workers and to provide safe and secure working environments. We continue monitoring devices suppliers' due diligence in respect to labor rights and safe and healthy working environments.

Our partnerships

- Microsoft is involved in more than 40 public-private-nonprofit partnerships, working with nonprofits to build the capacity of local governments and provide our MCT learning platform to deliver in-demand digital and foundational skilling programs, through a blended-learning model. These programs exist in Egypt, Turkey, Nigeria, Kenya, South Africa, India, Thailand, Brazil, Mexico, and many other countries.
- Microsoft works with customers to bring digital skilling and increased economic and livelihood opportunities to underserved people and communities. For example, Microsoft is working with Grab to train 1 million driver-partners and their families in digital literacy and technology-related employment skills via the Grab drive-partners app. Drivers also can earn certificates to demonstrate their abilities when applying for jobs. To date, more than 250,000 driver-partners have earned more than 550,000 certificates on the platform.
- We partner with development banks to help scale our Skills for Jobs program. Our partnership with the African Development Bank (AfDB) on Coding 4 Employment (C4E), the leading flagship ICT initiative of the AfDB, for example, equips Africa's young workforce with in-demand skills. We've trained about 220,000 youth through a combination of in-person and online training. The C4E program recently expanded to include a Digital Ambassador program that will train over 500 African youth as peer-to-peer educators.
- Microsoft partners with international governmental organizations to bring economic opportunity and ensure inclusive growth for underserved communities. For example, Microsoft is among the major corporations that partner with UNESCO to deliver the Global Skills Academy, which creates opportunities for digital upskilling and enables free access to employability oriented training for young people in the Middle East and Africa. Microsoft also partners with the UN Development Programme to support the COVID-19 Global Facility, which leverages data, digital tools, and digital skills as core elements for faster recovery and creation of economic opportunities for all.
- The i.c.stars program trains low-income adults in skills needed for technology-based careers, simultaneously preparing them for a future of community leadership. Microsoft partnered with i.c.stars to customize a cybersecurity curriculum, equipping new cohorts with the competencies and confidence to jump-start a career in this field.
- Microsoft Philanthropies and Microsoft Airband partnered with gener8tor to offer virtual digital skills trainings for unemployed and under-employed job seekers for communities of color across the United States, particularly for Black and African American communities, Indigenous communities, and people with disabilities.

Our support

- Annually, we support more than 250 nonprofits in 42 countries with free learning content, access to certificates and certifications, connections to jobs and livelihood opportunities in in-demand fields like cybersecurity, and strategic grants to enable program delivery to more than 2.5 million learners. Nonprofit organization partners include Goodwill, NPower, The Trust for the Americas, Generation, gener8tor, Simplon, Ecole 42, and CARE.

- Microsoft Mentors trains and connects employees at Microsoft with nonprofits seeking volunteers, mentors, and connections to industry practitioners.

Our internal and supply chain model

Microsoft ensures all our devices suppliers cover their workers with social insurance, and meet contractual and legal requirements for any payment of compensation via an assurance program.

Microsoft is committed to paying its employees at least the applicable minimum wage, including people with disabilities. We have added terms in our Supplier Code of Conduct to reconfirm the obligation of our suppliers to pay the applicable minimum wage to all their workers.

For more initiatives related to Goal 8, see our efforts to promote quality education and digital skills programs for young people worldwide with a focus on underserved populations (Goal 4), empower young women and girls and prepare them for careers in STEM fields (Goal 5), invest in clean energy and innovative sustainable technologies (Goals 7 and 13), extend internet connectivity to underserved parts of the world (Goal 9), teach coding and technology skills to underrepresented groups (Goal 10), improve urban infrastructure through technology (Goal 11), use technology tools to support ocean and land biodiversity and related economic activities (Goals 14 and 15), and safeguard and strengthen governments and public institutions (Goal 16).

OUR IMPACT SO FAR

Ensure access to technology, skills, and opportunity

33M+

Since 2017, we have helped more than 33 million people in underserved communities globally gain access to affordable broadband coverage, and we launched pilots in eight US cities last year to increase digital equity.

1,460

1,460 tech volunteers helped teach 580 **computer science (CS) classes** in 450 high schools in the US and Canada. 44% of students identified as being from a racial or ethnic group historically excluded from CS careers.

7.1%

For the first time, our annual Diversity & Inclusion Report gave employees the opportunity to identify as having a disability. As of June 2021, 7.1% of US employees self-identified as having a disability, giving us insight to ensure needed resources and support can be put in place.

42M

42 million learners around the world have accessed **digital skills training** and resources, thanks in large part to over 40 public-private partnerships with governments, nonprofits, and customers.

9

We helped launch **nine open data collaborations** with nonprofits, universities, companies, and governments to promote equitable access to data.

200M

We introduced new "accessible by design" features in Microsoft 365, enabling more than 200 million people to create and share more accessible content.

Protect public health

$410M

As of June 2021, more than $410 million had been committed in cash, technology, and other resources to support ongoing COVID-19 response efforts.

200+

More than 200 grants have been awarded through our AI for Health initiative to organizations tackling the COVID-19 pandemic.

Source: 2021 Impact Summary Report, Microsoft Corporation, 2022.

Environmental stewardship

Lucas Joppa

Chief Environmental Officer, Microsoft Corporation

In January 2020, Microsoft announced a bold commitment to be carbon negative by 2030 and to remove the company's historic emissions by 2050. How do these goals highlight the potential impact of the private sector in addressing climate change? What are the challenges and opportunities presented on the journey so far?

Global climate change is accelerating, and the window to forestall the worst impacts is closing. As evidenced by a decade of action and our recently expanded ambitions, Microsoft believes we can play a significant role in driving broader societal transformation. But we cannot solve the world's environmental problems alone—the world depends on every organization driving change by setting and meeting goals to achieve carbon neutrality. By doing our part of that work now, Microsoft not only can show what is possible, but we can also help make it easier for others to follow in our footsteps. And if we do that well, we can also show that sustainability is good for business—that it is profitable and builds more resilient businesses.

> **"An environmentally sustainable future requires the private sector to take an integrated approach ...."**

In 2020, Microsoft heightened its sustainability ambitions, culminating with a set of commitments beyond the carbon-negative-by-2030 goal. Microsoft also committed to being water positive (supporting Target 6.4), being zero waste (supporting Target 12.5), and protecting more land than it uses by 2030 (supporting Target 15.3). Do you think those pillars of environmental sustainability receive sufficient attention from the private sector?

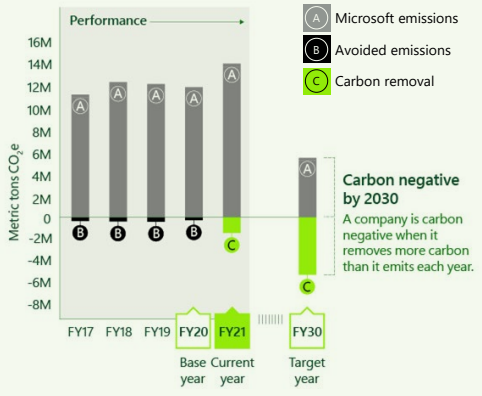
The answer is an unequivocal no. Each gets some attention on its own depending on local priorities, but the natural resources that our society depends upon cannot be reduced to just a single dimension that needs attending, whether it is carbon, water, ecosystems, or climate. An environmentally sustainable future requires the private sector to take an integrated approach that recognizes these challenges are interrelated. At Microsoft, our approach has been to make meaningful commitments across these pillars and pursue advances in the key areas identified by the SDGs. Along the way, we are harnessing the passion of our employees and coming together with like-minded organizations to share best practices, co-innovate, and help each other figure out how to achieve shared commitments. Implementing a broad sustainability strategy is ambitious, no doubt, but it is exactly what needs to be done if we are going to achieve a climate-stable planet.

How can Microsoft's carbon removal efforts contribute to the emissions removal market and inform the global call to integrate climate change measures into national policies, strategies, and planning (Target 13.2)?

Microsoft is currently the largest carbon removal customer in the world. But it is going to take gigaton-scale carbon removal and a lot more buyers than just Microsoft to keep warming within 1.5 degrees Celsius. The reality is that markets today are nascent and largely voluntary, and there isn't nearly enough supply to meet growing demand. At Microsoft, we're using our influence to push the market to scale up, with the goals of stimulating more fluidity and bringing more high-quality removal projects online while making them affordable and cost-effective. At the same time, we're helping accelerate the development of carbon reduction, capture, and removal solutions through our Carbon Innovation Fund. As the market grows, there is an obvious and urgent role for the public sector to establish a credible, coordinated, international carbon accounting system with clear definitions and standards. By sharing what we have learned about carbon removal, we can help the private and public sectors understand what is needed to make that market work.

Tracking our yearly progress toward carbon negative by 2030

In FY21 we procured the removal of 1.4 million metric tons of carbon as one of our initial steps towards achieving our 2030 commitment.

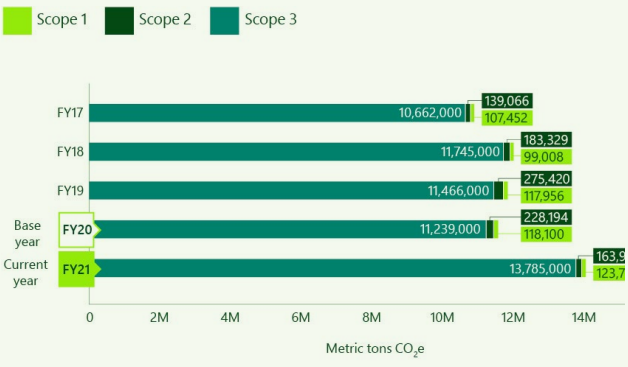


a. Chart has been updated to reflect latest actual values which incorporate latest methodology and structural change adjustments. A portion of the 1.4 million metric tons of removal will apply to future years.

b. Overall increase in emissions is driven mainly by the growth of our cloud services business and an increase in sales and usage of our devices.

Tracking our yearly emissions across Scopes 1, 2, and 3

In FY21, we reduced our Scope 1 and 2 (market-based) emissions by 16.9 percent. We saw an increase in Scope 3 emissions driven by growth of our cloud services business and an increase in sales and usage of our devices.



Source: 2021 Environmental Sustainability Report: A Year of Action, Microsoft Corporation, 2022.

Goal 13: Climate Action

The effects of global climate change threaten every country and population on Earth. Microsoft sees mitigating the harmful effects of climate change as one of the defining challenges of our time. We are committed to leveraging our resources and expertise to reduce carbon output and promote clean energy innovation. **We will use our voice and position as a global technology company to advocate for Target 13.2,** which calls for integrating climate change measures into national policies, strategies, and planning. We believe that technology has a major role to play in Target 13.3, which calls for improved education and awareness on climate change mitigation, adaptation, impact reduction, and early warning.

Our programs

- Through new digital tools, we are assisting our customers in decarbonizing their own operations and infrastructure. In July 2021, we launched the Microsoft Cloud for Sustainability to provide comprehensive, integrated, and automated sustainability management for

13 CLIMATE ACTION

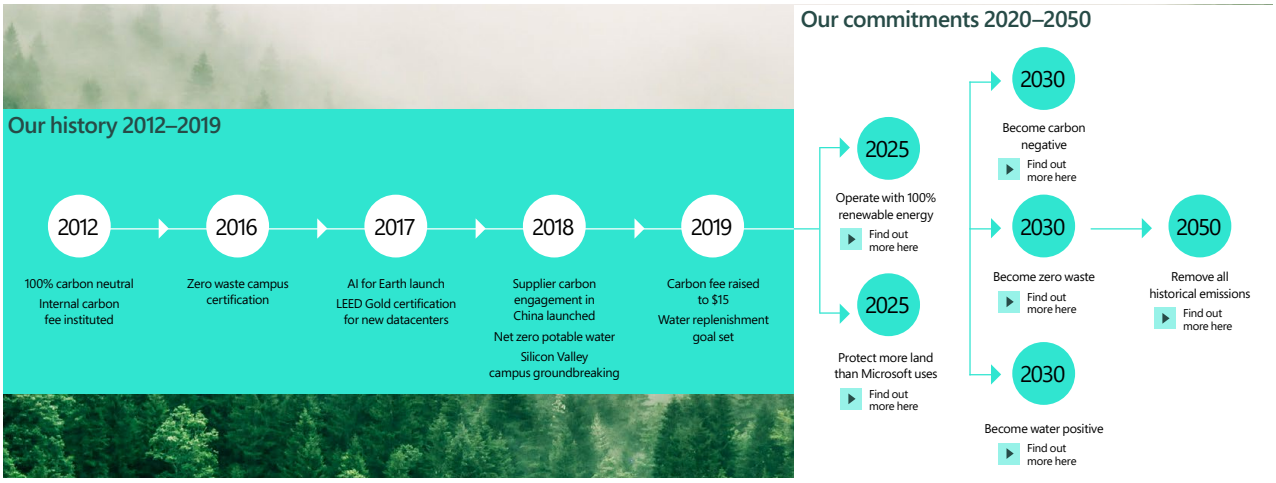
We believe that technology has a major role to play.

Source: 2021 Environmental Sustainability Report: A Year of Action, Microsoft Corporation, 2022.

HIGHLIGHT

Since the beginning of our sustainability journey at Microsoft, we have known that we need to work together with a wide range of organizations to achieve a net zero-carbon future. In February 2022, Microsoft, ClimateWorks Foundation, UNEP, and more than 20 other leading organizations announced the Carbon Call to address reliability and interoperability in carbon accounting for the planet. As both a participating organization and signatory in the Carbon Call, we are excited to work with others to strengthen the foundations for carbon accountability and advance a reliable, global system of interoperable GHG ledgers.

Commitments



Source: 2021 Environmental Sustainability Report: A Year of Action, Microsoft Corporation, 2022.

organizations at any stage of the sustainability journey.

- We have allocated $471 million to date via our Climate Innovation Fund to accelerate our carbon goals, as well as water and waste treatment and management. We also donated $100 million to Breakthrough Energy's Catalyst initiative, to help accelerate and scale new carbon solutions.
- Although deep carbon reduction is our top priority, physically removing carbon from the atmosphere also will be essential to our ability to meet our net-negative target scale and timeframe. In July 2020, we issued a request for proposals (RFP) to source our first carbon removals and purchased from 15 organizations representing more than 1.3 million metric tons of carbon removal. We released a new white paper to share our learnings about what worked and what did not, so that others can accelerate their own carbon removal.

Microsoft is one of the largest purchasers of renewable energy in the world. From 2020 through early 2021, we signed new power purchase agreements (PPAs) for approximately 5.8 gigawatts (GW) of renewable energy across 10 countries, totaling more than 8 GW of renewable energy via PPAs or long-term contracts.

- To aid reporting requirements in our Supplier Code of Conduct, we released a set of in-depth capacity-building tools and resources, developed in partnership with ENGIE Impact, WSP, and CDP to help companies, especially our suppliers, report their GHG emissions and set strategies to reduce emissions from electricity. In 2021, we successfully requested 167 suppliers (an increase of 43 per cent year over year) to report their GHG emissions via CDP.
- We set to decarbonize our devices supply chain by setting bold ambitions to reduce supply chain emission by more than half by 2030. To achieve this target, we are engaging our suppliers to set and achieve carbon neutrality goals.
- We are bringing new research to bear, including a white paper on how to reduce embodied carbon through the selection

and procurement of low-carbon products and the tracking and reduction of carbon emissions during construction. A white paper by RMI also highlights the potential for hourly energy monitoring tools to provide transparency into supply and demand for zero-carbon energy.

Our partnerships

- Launched in 2021, BASCS aims to bridge the gap in climate finance by providing a central platform for businesses and experts to meet, learn, discuss, and act together. As a founding member of the alliance, Microsoft is sharing our resources and experiences as an early adopter of climate solutions, as well as an investor providing catalytic capital for nascent and first-of-a-kind climate solutions.
- Microsoft co-founded the Carbon Removal Climate Action Group of the World Economic Forum (WEF) CEO Climate Leaders Alliance to help raise corporate awareness about the importance of carbon removal. The alliance also will create a due diligence platform and a joint purchasing strategy for carbon removal.
- In April 2021, Microsoft was announced as one of the founding members of SABA. Led by RMI and the Environmental Defense Fund (EDF), SABA will work to accelerate the path to net zero aviation by driving investment in sustainable aviation fuel, catalyzing its production and technological innovation, and supporting member engagement in policymaking efforts. We recognize that one company alone cannot solve the global carbon emissions challenge. We joined forces with eight companies to establish a new initiative for accelerating the transition to a net zero global economy. To create a multiplier effect on corporate ambitions for climate change, the Transform to Net Zero initiative intends to develop and deliver research, guidance, and implementable roadmaps to enable all businesses to achieve net zero emissions.
- We are actively working with our Climate Innovation Fund to invest in promising carbon removal companies and projects. For example, Climeworks' Orca direct air capture plant in Iceland removes carbon dioxide from the atmosphere and stores it permanently underground using a mineralization technology developed by the Icelandic company Carbfix.
- We are collaborating and investing alongside multiple energy operators and service providers across geographies as carbon capture and storage continues to gain momentum, thanks to strengthened climate commitments, increased government support, and technology advancements. For example, Northern Lights is an industry-leading partnership with Equinor, Total, Shell, Microsoft, and the Norwegian government that has already served as a best practice template for government and private industry collaboration in other carbon capture and storage hubs around the world.
- Microsoft launched the Green Software Foundation in May 2021 alongside Accenture, ThoughtWorks, and GitHub to create green software industry standards, drive awareness, grow advocacy, and accelerate innovation to enable developers to reduce the carbon emissions of the software platforms that they build. The foundation has grown to 20 members and more than 350 individual contributors collaborating on standards, innovation, and education. The first version of the Software Carbon Intensity standard, a methodology for scoring software applications, was released in December 2021.
- Our gaming business has partnered with UNEP on the Playing for the Planet initiative. Its goals are to reduce the impact of the gaming ecosystem on the environment through better carbon accounting and educating gamers everywhere on sustainable causes. For example, the Minecraft Build a Better World Initiative delivers in-game content about the need to protect and conserve and about matching funds to charitable organizations focused on conservation.

For more initiatives related to Goal 13, see our efforts to employ technology to help farmers grow more crops sustainably and to use water more efficiently (Goals 2 and 6), replenish water in water-stressed areas where we operate (Goal 6), invest in clean energy and innovative sustainable technologies (Goal 7), reduce waste and perform life cycle assessments of our products' environmental impacts (Goal 12), use technology tools to support ocean and land biodiversity and related economic activities (Goals 14 and 15), and develop partnerships for collective action (Goal 17).

OUR PROGRESS

Reduced Scope 1 and 2 by 16.9%

We will reduce our Scope 1 and 2 (market-based) emissions by 58,654 metric tons of carbon dioxide equivalents ($mtCO_2$) FY21. Scope 3 emissions increased by 22.7 per cent.

5.8 GW of renewable energy

In FY21, we signed new power purchase agreements (PPAs) for approximately 5.8 gigawatts (GW) of renewable energy across 10 countries around the globe. totaling more the 8 GW of renewable energy via PPAs or long-terms contracts.

Supplier reporting tools

We released a set of in depth capacity building tools and resources, developed in partnership with ENGIE Impact, WSP, and CDP to help companies, especially our suppliers, report their greenhouse gas (GHG) emissions and set strategies to reduce emissions for electricity.

87% supplier reporting

In July 20201, 87 per cent of our in-scope suppliers reported their emissions to CDP, up 12 per cent from 2021. This data informs suppliers' baselines for reductions targets and gives Microsoft a more accurate picture of its Scope 3 emissions. Following the CDP cycle, Microsoft built out action plans with suppliers to assess and report emission reductions through 2030.

2.5M tons carbon removal

In FY21 and FY22, Microsoft successfully contracted to remove 2.5 million $mtCO_2$, meeting our cumulative two-year goal. This includes 1.4 million $mtCO_2$[2] contracted in FY21 and 1.1 million $mtCO_2$ contracted to date in FY22, on path to meet our goals of 1.5 million $mtCO_w$, in FY22.

$571M

Allocated $471 million to date via our Climate Innovation Fund to accelerate our carbon goals, as well as water and waste. We also donated $100 million to Breakthrough Energy's Catalyst initiative.

Launched the Microsoft Cloud for Sustainability

In July 2021, we launched the Microsoft Cloud for Sustainability to provide comprehensive, intergrated, and automated sustainability management for organizations at any state of the sustainability journey.

Improved device effeciency

While overall device and console use phase emissions grew as a result of higher sales and usage during the pandemic, we reduced the carbon footprint for several products and usge scenarios:

- Surface Pro 8 is one of the most energy efficient Surface Pro devices ever.
- The new Surface Laptop Studio has a 30 percent smaller carbon footprint than its predecessor, the Surface Book 3 13." [3]
- Energy-saving mode, a new low-power standby mode for Xbox consoles, uses as little as 0.5W.

Source: 2021 Environmental Sustainability Report: *A Year of Action*, Microsoft Corporation, 2022.

Digital peace and strong institutions

Tom Burt

Corporate Vice President, Customer Security & Trust, Microsoft Corporation

The SDGs call for stakeholders to strengthen relevant national institutions, including through international cooperation; building capacities at all levels, particularly in developing countries; preventing violence; and combating terrorism and crime (Target 16.a). How does this challenge apply to cyberspace?

Criminals and terrorists leverage cyberspace along with purely physical domains. While some actors apply sophisticated techniques, others take advantage of weak cybersecurity.

We need to increase the cost of criminal and terrorist pursuits by building cybersecurity capacity and fostering international cooperation. Microsoft is committed to building that capacity across countries and communities. We're a founding supporter of and active contributor to the Global Forum on Cyber Expertise, composed of more than 115 multistakeholder partners, as well as the CyberPeace Institute (CPI), an independent, nongovernmental organization (NGO) that seeks to reduce harms from cyberattacks on people's lives worldwide.

> **"We need to enhance our public-private partnerships in key areas ...."**

In parallel, we also work with international institutions, such as the International Telecommunication Union (ITU), to develop cybersecurity best practices. We've been a partner and contributor to the ITU's Guide to Developing a National Cybersecurity Strategy, and we encourage policymakers to reference the second edition of the guide, released in 2021, as well as free online training to support its use.

From attacks on the global healthcare sector during the coronavirus pandemic to the SolarWinds cyberattack, nation-state cyberattacks are causing significant damage, and ransomware attacks continue to proliferate. What steps must be taken to accelerate the work underway by the private sector and government to address our collective cybersecurity?

We need to enhance our public-private partnerships in key areas, defining and holding actors accountable for inappropriate behavior, implementing best practices for technology security and operational risk management, and improving collaboration on incident response. Global multistakeholder support for public-private action on cybersecurity is growing; more than 1,200 organizations have now signed the Paris Call for Trust and Security in Cyberspace. This past spring, states in the UN Open-Ended Working Group (OEWG) on cybersecurity reaffirmed that international law and norms for state behavior apply to cyberspace and recognized that critical infrastructure like healthcare facilities should be off-limits to cyberattacks. Around the world, governments are seeking input as they define practices to improve security. Investments in capacity building and ongoing cooperation will be key to ensuring that international commitments and national efforts are effective and long-lasting. We urge states to build on the outcomes of the OEWG by continuing to hold inclusive dialogue, and we support proposals at the UN to facilitate multistakeholder cooperation on cybersecurity in upcoming deliberations.

What steps is Microsoft taking to better defend people and institutions that are victims of cyberattacks? How is Microsoft contributing to the deterrence of cyberattacks that threaten the critical infrastructure within the SDGs?

Microsoft is deeply invested in the security of our products and services. We recognize the opportunity and responsibility to support victims of cyberattacks and to help strengthen the security of global infrastructure. In the wake of attacks that compromised the supply chain of SolarWinds, we established a public resource center to share threat intelligence, Indicators of Compromise, and guidance to help the international community conduct investigations, harden infrastructure, and recover. Our Microsoft security intelligence blog series provides insights and guidance from the broader threat actor activity that our Microsoft Threat Intelligence Center (MSTIC), Detection and Response Team (DART), and other groups track and against which they regularly defend. Along with our partners, we have invested in the founding of the CPI, which aims to assist victims of cyberattacks and foster societal resiliency through its CyberPeace Builders program. The program, launched in July, is envisioned to be the first global network of cybersecurity volunteers from the private sector working to protect civilian-critical NGO services in sectors like healthcare, food supply, and energy. Microsoft also actively seeks to strengthen the security of individuals, institutions, and infrastructure that are particularly vulnerable to sophisticated cyberattacks—including electoral systems, political parties and campaigns, healthcare workers, journalists, and human rights defenders—through our ElectionGuard and AccountGuard programs.

Goal 16: Peace, Justice and Strong Institutions

Peace, justice, and strong institutions are the cornerstones of prosperous societies. Technology provides new tools for strengthening and protecting these institutions. But it also brings new risks. Online safety, data security, privacy, and the spread of misinformation, for example, have emerged as critical threats to peace and prosperity around the world.

Microsoft is acting on its responsibility as a global technology provider to build innovative tools that can secure institutions, working in partnership with companies, governments, and international organizations to develop frameworks for the responsible use and regulation of technology. We believe that **technology can**, when used responsibly and inclusively, play a special role in increasing the accountability and transparency of institutions (Target 16.6), ensuring inclusive and responsive decision-making (Target 16.7), and ensuring public access to information (Target 16.10). In addition, new tools built with technology may provide novel solutions for providing legal identity (Target 16.9), ending exploitation and trafficking of children (Target 16.2), and reducing illicit financial and arms flows (Target 16.4).

New tools built with technology may provide novel solutions.

HIGHLIGHT

To increase trust in democratic processes and enhance election integrity, Microsoft has developed an open-source software toolkit, ElectionGuard, that will be incorporated in Hart InterCivic's voting systems. ElectionGuard provides election officials and individual voters the ability to confirm votes have not been altered, suppressed, or tampered with. It also allows external monitors check that all votes have been correctly tallied to produce an accurate count and confirm that the election outcome has not been altered.

Our programs

- The Microsoft Democracy Forward Initiative develops and partners on policy and technical solutions to support open and secure democratic processes, a healthy information ecosystem, and corporate civic responsibility. The program includes efforts to improve the security of campaigns, elections, and organizations and institutions that underpin democracy.
- Microsoft AccountGuard provides unified threat detection and notification for online accounts and is available at no charge to existing customers. The identity and access management service, which originally was created for use in political campaigns, now covers election officials, political parties, political consultants, think tanks, democracy advocacy organizations, human rights organizations, journalists and newsrooms, the healthcare industry, and nonprofit organizations. It is active in 32 countries, protecting more than 4 million inboxes around the world.
- Microsoft's Journalism Initiative works to combat disinformation, expand news distribution, and pilot a community-based program to provide journalists and newsrooms with new tools, technology, and capacity to increase the reach and efficiency of local news outlets.
- We continued the supplier antitrafficking measures found in the Microsoft Supplier Code of Conduct and continued auditing devices' suppliers against Microsoft's Social and Environment Accountability requirements, while also increasing supplier reporting transparency.

Our partnerships

- For US and international elections, the Democracy Forward Initiative works in partnership across Microsoft to coordinate and improve the cyber-resilience of our election-related customers and partners. This work includes the development of Election Situation Rooms, cybersecurity incident response, and trainings of campaign and election officials.
- PhotoDNA, a technology developed by Microsoft and Dartmouth College, aids in finding and removing known images of child exploitation. Organizations around the world use PhotoDNA to assist in the detection, disruption, and reporting of millions of child exploitation images.
- Microsoft provides the Vera Institute of Justice Reshaping Prosecution program with financial support for technical assistance and to help advance racial equity through improved access to data in multiple district attorney's offices throughout the US. Through these efforts, we are beginning to see data used to influence policy that directly addresses racial disparities in prosecution and other areas of the justice system.
- Microsoft began supporting the Law Enforcement Assisted Diversion (LEAD) National Support Bureau in Seattle in 2019 when we partnered on a technology platform to help law enforcement agencies, courts, and health care providers share data across the client populations that LEAD serves. This partnership represents a "divert-first" approach to reduce the criminalization and repeated arrests of people whose unlawful conduct stems from unmanaged behavioral illness. Today, Microsoft supports LEAD as it creates its cohort-based approach, implementing the LEAD model at 11 member sites with sufficient capacity for technology or data deployments.
- Microsoft provided funding to the National Institute for Criminal Justice Reform and

its partners Advance Peace and Center for American Progress to create the National Offices of Violence Prevention network, identifying cities and local governments that work with community-based organizations to implement violence prevention programs. The cohort is designed to provide best practices, evaluate multiple methods of implementation, and prepare to submit for federal funding as part of the White House Community Violence Initiative. The network launched with 21 cities and has expanded to 32. As the cities within the cohort identify their specific needs for violence reduction, the network will help train organizations to implement violence-prevention programs locally.

- As a member of the Technical Advisory Council for the ID2020 Alliance, we work to create safe, secure, and ethical digital identification systems for the future.
- In order to increase media literacy among US voters ahead of the 2020 election, Microsoft partnered with the University of Washington, Sensity, and USA Today to develop spotthedeepfake.org, an online interactive quiz to help people sort disinformation from genuine facts and gain awareness of the impact of fabricated or untrue media content on democracy.
- Through a partnership with the BBC, the Canadian Broadcasting Corporation and Radio-Canada, and the New York Times, Microsoft launched Project Origin, a media authentication and provenance technology. This project aims to develop technology that can assure readers that media has come from a trusted source, prove its authenticity, and confirm that it was not altered.
- We have partnered with the AI Foundation, a dual commercial and nonprofit enterprise based in San Francisco, on their Reality Defender 2020 initiative, to operationalize Microsoft Video Authenticator, a tool for synthetic media detection. This tool is available to organizations involved in the democratic process, including news outlets and political campaigns.

> **“Microsoft is taking on its responsibility as a global technology provider ....”**

- Microsoft played a leading role in the launch of the Coalition for Content Provenance and Authenticity, a technical-standards body, to guide the development of tools that verify the source and authenticity of media. We currently are collaborating with WITNESS and the Partnership on AI to support the development of a code of conduct for those creating and using synthetic media.
- Microsoft partners with NewsGuard, a company that evaluates online news sources based on nine principles of journalistic integrity and provides information to enable people to learn more about the source of their online content. Microsoft supports a free NewsGuard browser extension for Microsoft Edge.
- Nonprofits are increasingly under attack from cyberthreats. To help nonprofits proactively detect, prevent, and monitor security risks, the Microsoft Tech for Social Impact team launched the Security Program for Nonprofits, a set of security offerings that meets nonprofit organizations where they are in their security journey. The Security Program for Nonprofits includes Microsoft AccountGuard for Nonprofits, free security assessments, and training pathways. The program, launched in October 2021, aims to support 10,000 organizations in the first year, with a three-year goal of providing these services to 50,000 organizations worldwide.
- Microsoft works with Report for America to place emerging journalists into local newsrooms across the country to report on under-covered issues, rebuild capacity, and provide technology and training. This pilot program focuses on five rural communities across the US and supports newsrooms in Yakima, Washington; El Paso, Texas; and Green Bay and Appleton, Wisconsin.
- Microsoft is funding the Online News Literacy Ambassador Campaign by the Trusted Journalism Partnership, which includes the University

of Washington, the Radio Television Digital News Association, and The Trust Project. The initiative is creating a news literacy campaign to equip the public and Microsoft users with the confidence and tools to identify and access trustworthy, accurate information, building resilience and restoring confidence in our information ecosystem.

- Through a partnership with Davis Wright Tremaine, the Reporters Committee for Freedom of the Press, and the John S. and James L. Knight Foundation, Microsoft piloted the Protecting Journalists Pro Bono Program to work with individual reporters and small news organizations to help them defend their legal rights and deliver quality journalism.
- Microsoft partnered with Business for Social Responsibility to publish the white paper Responsible Business Decision-Making Before, During, and After Public Health Emergencies: A Rights-Based Approach to Technology and Data Use. The paper sets out the key elements of a human rights-based approach to the use of data and technology solutions during public health emergencies in the digital era, with a focus on the role of business and impacts on privacy.

Our support

- Microsoft worked in partnership with Mastercard and the Hewlett Foundation, along with other key partners, to establish and support the CPI, an independent NGO based in Geneva and launched in 2019. The CPI has a unique mandate to address the harms caused by escalating conflict and to promote accountability for responsible behavior in cyberspace. Amid the pandemic, the CPI launched its operational capacities, focusing on the unique vulnerabilities of hospitals and healthcare groups and highlighting the impact of increasing attacks against them.
- After an August 2021, White House cybersecurity summit, Microsoft CEO Satya Nadella confirmed that Microsoft would invest $20 billion to advance our security solutions over five, put $150 million toward helping US government agencies upgrade protections, and expand our cybersecurity training partnerships.
- Microsoft is one of the founding signatories and a lead supporter of the Cybersecurity Tech Accord, the largest industry commitment to cybersecurity principles, which includes more than 150 signatory companies from across the tech industry and around the world. The coalition works collaboratively to be the industry's voice on peace and security online and pursues initiatives that improve the cybersecurity ecosystem. This includes advancing security best practices by industry and partnering with governments and civil society groups to promote expectations for responsible behavior by states and other actors.
- Microsoft supports and contributes to the ITU's National Cybersecurity Strategy Guide for governments to create a comprehensive national plan for cybersecurity, and we have been a key partner in developing an updated version of the guide.
- Microsoft supports the Internet Governance Forum Dynamic Coalition on Standards, Security, and Safety to advance global implementation of cybersecurity standards for the resiliency of the online environment and Internet of Things (IoT) devices.
- Microsoft supports the Alliance of Democracies Foundation (AoD) to train political candidates on measures to protect their campaigns from cyberattacks. Microsoft has also supported the translateion of AoD's media literacy game, Disinformation Diaries, into multiple languages to improve public understanding of how disinformation can interfere with democratic processes.

> **"We are working to create safe, secure, and ethical digital identification systems for the future."**

- Microsoft supports the International Foundation for Electoral Systems to strengthen the cybersecurity practices of investigative journalists who report on abuse of state resources in elections.

- Microsoft partners with the National Democratic Institute to strengthen the cybersecurity support infrastructure for political parties and campaigns internationally.
- A Microsoft data scientist developed a model with the Carter Center on Azure to use AI to identify and classify armed-conflict incidents from their internal news feed.
- Microsoft joined a White House-facilitated funder collaborative to strengthen and scale community-led community violence interventions in 16 jurisdictions. This effort will support both proven and new strategies that reduce violence and strengthen community-based infrastructure to enhance public safety for children, families, and communities.

For more initiatives related to Goal 16, see our partnerships created to empower institutions across the other Goals.

OUR IMPACT SO FAR

Respect privacy

51M

51 million people have engaged with our privacy tools to date, enabling them to control their data and make meaningful choices about how it's used.

We were the first major tech company to extend the rights of the European Union's General Data Protection Regulation to all our consumers worldwide, and the rights of the California Consumer Privacy Act to all US consumers.

Develop and use tech responsibly

Shared our open-source tools to help developers build AI technologies responsibly, enabling them to identify, diagnose, and mitigate issues before deployment.

Updated our Reports Hub to provide a single, consolidated view of key reports and resources related to our commitments and progress.

Advance cybersecurity and digital safety

700K+

The Microsoft Digital Crimes Unit took down 140,000+ malicious websites, disrupted or seized 700,000+ malicious domains, and rescued 4.8 million+ victims from cybercriminals.

150+

Helped recruit more than 150 global technology companies to sign the Cybersecurity Tech Accord, an industry commitment to fundamental cybersecurity principles.

20.5M+

More than 20.5 million nation state-related threat notifications sent to customers over the last three years, giving them actionable information to help them rapidly respond to and protect themselves from digital threats.

1st

Launched our first biannual Digital Safety Content Report, covering actions we've taken on child sexual abuse and exploitation imagery, terrorist and violent extremist content, and non-consensual intimate imagery.

24T

24 trillion security signals processed daily. Blocked 9 billion threats to devices, 31 billion identity threats, and 32 billion email threats, and used the insights to inform increased protections.

11,000

As part of our 2021 Microsoft Digital Civility Index, we surveyed more than 11,000 teens and adults in 22 countries to increase awareness of online risks and encourage respectful online practices.

Source: 2021 Impact Summary Report, Microsoft Corporation, 2022.

As a member of the global technology community, we are proud of our contributions to these issues, but we remain humbled by the scale of challenges that we all face to meet the Global Goals.

Section Two: The SDGs we contribute toward

In the first section, we covered four of the 17 SDGs that Microsoft is focused on as a company. In this section, we'll provide examples of our contributions to the other 13 SDGs. As a member of the global technology community, we are proud of our contributions to these issues, but we remain humbled by the scale of challenges that we all face to meet the Global Goals. A number of our initiatives support progress toward specific targets, while others are part of the broader effort required to address major societal challenges that an SDG seeks to tackle.

To deliver on the SDGs by 2030, governments, business, civil society, and all concerned stakeholders must promote and scale collective efforts on sustainable development. In the following pages, we detail our programs, partnerships, and support for various initiatives that supplement the global effort to advance progress on the SDGs. We hope that other partners and stakeholders will join in helping the world achieve these Global Goals ahead of 2030 with additional approaches, information, and resources.

Artificial intelligence for humanitarian action

Dr. Anshu Sharma

Cofounder, SEEDS

What has been the biggest surprise in your partnership/ collaboration with Microsoft?

The hunger for efficiency in disaster warnings and the ease with which communities and local governments have accepted—and, in fact, welcomed—a highly tech-based solution was very surprising for us, and pleasantly so. We had assumed that there will be challenges of acceptance among frontline workers and local decision-makers and that we would need to explain what AI for Humanitarian Action means for improving disaster warnings and, thus, saving lives and assets. The understanding, however, came instantly, almost as though the world was desperately waiting for such a solution!

Goal 17 calls for revitalized partnerships to achieve the SDGs. Is the private sector fulfilling its potential as a contributor to SDGs?

The role of the private sector in sustainable development has always been recognized, though often seen with a limited scope.

> “Sustainability is about the future. It is about anticipating and planning for scenarios in a world that is changing like never before.”

Social responsibility almost grew out of philanthropy, and the tinge of charity is inherent in its construct. Recent developments have, however, raised the bar significantly, and responsible business is emerging as a thoughtful corporate strategy. Microsoft's AI4Good suite is a leading example of responsible business, with users in the domains of government, civil society, academia, and even vulnerable communities. Microsoft Power Apps and Azure services are core technology businesses, but the AI for Humanitarian Action initiative is demonstrating how these services are going to make the world safer and more sustainable, like no conventional approach can.

In the 2030 Agenda for Sustainable Development, "financial resources, technology development and transfer, and capacity building" are listed as three means of implementation for the SDGs. Where is the private sector falling short?

Financial resources and technology development are two areas where the private sector will naturally excel. When it comes to technology transfer and capacity building, the landscape is rather fuzzy. "Transfer resources and technology to whom?" and "Build whose capacity?" are questions that still plague the third aspect of this commitment. Traditionally, tech-transfer and capacity-building efforts have focused on governments alone. AI for Humanitarian Action has shown that for the SDGs to have impact on the last mile, technology and capacity building also need to focus on this territory. Working with local actors, including local governments, aid agencies, community-based organizations, and communities themselves, is critical for building capacities that will make a difference on the frontlines.

How should companies think about what truly counts as "sustainable" when they report on the SDGs?

Sustainability is about the future. It is about anticipating and planning for scenarios in a world that is changing like never before. This is a world where future projections can no longer be based on past trends because climate change and economic growth patterns have altered the planning paradigms that we are used to working with. In such a context, companies also need a new lens for looking at sustainability, as opposed to a conventional approach based on carrying capacity.

Carrying capacities themselves are getting reduced in some areas, and growth trajectories are taking unprecedented courses, thus making load projections extremely challenging. Recent experiences of the coronavirus pandemic, increased heat waves, more intense tropical cyclones, severe urban floods, and civil strife in vulnerable societies also make us realize that the world needs to be far better prepared for shocks and stresses. In order to truly count as sustainable, our efforts need to focus on sharpening our anticipation capacities—even in an unpredictable future. We must resolve to invest in building resilience at all levels, especially at the community level.

"Recent developments have … raised the bar significantly, and responsible business is emerging as a thoughtful corporate strategy."

Goal 1: No Poverty

For a substantial part of the world, the benefits of the Fourth Industrial Revolution's technological advances are elusive and remain out of reach. Target 1.4 aims to ensure that **all people**, particularly the poor and the vulnerable, have **equal rights to economic resources**, in addition to access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, **appropriate new technology, and financial services** by 2030. Target 1.5 aims to **build resilience and reduce exposure among the poor** and vulnerable to **climate-related extreme events and other economic, social, and environmental shocks and disasters.**

Microsoft is working to provide technologies, skills, and resources and to promote approaches that have lasting impacts and remove barriers to access so more people can experience the transformative benefits of the digital economy

Our programs

- AI for Humanitarian Action is a Microsoft program harnessing the power of AI to focus on four priorities: helping the

1 NO POVERTY

Microsoft is working to provide technologies, skills, and resources.

HIGHLIGHT

TechSpark is a Microsoft initiative to spark new economic opportunities and job creation in rural and smaller communities through digital transformation and local partnerships. The initiative focuses our resources and deep partnership on specific communities in seven US states—Mississippi, North Dakota, Texas, Virginia, Washington, Wyoming, and Wisconsin—and Ciudad Juárez, Mexico. Through extensive partnerships with local government, businesses, educational institutions, and nonprofits, TechSpark has launched projects to improve economic opportunity, job creation, or supporting the local startup ecosystem, including the Grand Farm (Fargo, North Dakota), Title Town Tech (Green Bay, Wisconsin), Bridge Accelerator (El Paso, Texas, and Ciudad Juárez, Mexico), the SOVA Innovation Hub (South Boston, Virginia), and iLumina (Quincy, Washington). Annually, our TechSpark program helps drive more than $50 million in economic impact and thousands of jobs to the communities that we serve.

world recover from disasters, addressing the needs of women and children, protecting refugees and displaced people, and promoting respect for human rights. The program works with selected NGOs, universities, and humanitarian organizations through financial grants, technology investments, and partnerships that combine our AI and data science expertise with their domain knowledge. The program has invested in 57 projects in more than 19 countries to help organizations better harness the power of AI to better enable humanitarian response.

Our partnerships

- Partnerships for Economic Opportunities Through Technology in the Americas (POETA) is a nonprofit that has partnered with Microsoft to train underserved groups in technology, life skills, employability, and entrepreneurship. POETA operates in more than 200 locations across 19 countries in Latin America and the Caribbean.
- New Sun Road, a Microsoft Airband partner based in California and focused on access to clean energy, is deploying internet-enabled digital community centers in Guatemala to help address and combat climate-driven poverty there. In collaboration with the United States Agency for International Development (USAID), the centers serve as community-led technological hubs to enable greater access to the internet and digital skills education.

Our support

- The MySkills4Africa and MySkills4Asia programs invite Microsoft employees from all over the world to contribute their time, talent, and deep expertise to help build a prosperous, promising future for people in Africa and Asia by working with new businesses, students, NGOs, and Microsoft partners across both continents.
- The German nonprofit Welthungerhilfe worked with our data science team and the Indian health authorities to develop a height estimation model for children under 5 years old, a critical measure to help assess child malnutrition. Microsoft is now working with the organization to test the model in Namibia and work toward generalizing its application.
- Microsoft assisted the Investigative Team to Promote Accountability for Crimes Committed by Da'esh/ISIL (UNITAD) in utilizing AI to better assist their criminal investigations.
- Using AI models, Microsoft partnered with Benetech to develop sound-based systems for identifying the suspected use of internationally banned weapons, based on recordings of explosions in Syrian warzones.
- Through grants, partner support, and data scientist engagement, Microsoft developed a case management platform to assist the Turkish Red Crescent in **refugee-family reunification**. The platform supports case managers through AI facial recognition, based on consensually submitted photographs of family members.

For more initiatives related to Goal 1, see our efforts to promote quality education and digital skills programs for young people worldwide with a focus on underserved populations (Goal 4), empower young women and girls and prepare them for careers in STEM fields (Goal 5), invest in clean energy and innovative sustainable technologies (Goals 7 and 13), promote decent work and economic growth (Goal 8), extend internet connectivity to underserved parts of the world (Goal 9), teach coding and technology skills to underrepresented groups (SDG 10), improve urban infrastructure through technology (Goal 11), use technology tools to support ocean and land biodiversity and related economic activities (Goals 14 and 15), and safeguard and strengthen governments and public institutions (Goal 16).

Goal 2: Zero Hunger

In a world with finite arable land, changing diets, and a population that is expected to grow from 7.7 billion to nearly 10 billion by 2050,[3] farmers around the world will need to increase food production by about 70 per cent. The urgent question is: How?

Finding the right answers is one of humanity's most pressing issues. The growing strain on food resources caused by a growing population also leaves many vulnerable to shocks and food insecurity. Goal 2 calls for sustainable food production systems and resilient agricultural practices that increase productivity and production. Further, they should strengthen capacity for adaptation to climate change, extreme weather, drought, flooding, and other disasters while progressively improving land and soil quality. We believe **digital technologies and AI** can be part of the solution.

Our programs

- Land O'Lakes and Microsoft announced a multiyear strategic alliance to pioneer innovations in agriculture, enhance the supply

2 ZERO HUNGER

We believe digital technologies can be part of the solution.

[3] "Growing at a slower pace, world population is expected to reach 9.7 billion in 2050 and could peak at nearly 11 billion around 2100." UN Department of Economic and Social Affairs, June 17, 2019. https://www.un.org/development/desa/en/news/population/world-population-prospects-2019.html

HIGHLIGHT

Microsoft Azure FarmBeats harnesses data and AI to help farmers cut costs, increase yields, and sustainably grow crops that are more resilient to climate change. FarmBeats collects data from multiple sources, such as sensors, drones, satellites, and tractors, and feeds it into cloud-based AI models that provide a detailed picture of conditions on the farm. This empowers farmers to efficiently use natural resources. Consider, for example, water for precision irrigation that is guided by the generated intelligence. Since most farms have limited or no internet access, FarmBeats transmits data using various forms of fixed wireless technologies to an edge device at the farm and onto the cloud with Microsoft Azure.

chain, expand sustainability practices for farmers and the food system, and close the rural broadband gap. Land O'Lakes is one of the nation's largest farmer-owned cooperatives, with 150 million acres of productive cropland in its network. It is deeply connected to rural America and has a unique understanding of farmers' needs, as well as the communities where they and their families live and work. Combined with trusted Microsoft cloud technologies and AI capabilities, the companies will deliver solutions that help farmers' profit potential and adoption of sustainable agricultural practices.

Our partnerships

- SunCulture, a grantee through the Microsoft Airband Initiative, has developed a solar-powered water pumping and drip irrigation system that allows small-hold growers in Kenya to use water more efficiently and effectively. Farmers can use SunCulture's technology to increase production and grow higher-value crops, ultimately reducing labor and increasing economic growth.
- Microsoft partners with HSBC to support Feeding America in expanding its new workforce development initiative within communities in need.
- Microsoft works with the Ministry of Agriculture for the Republic of Indonesia to empower small-holder farms with solutions that can increase profitability and efficiency using machine learning and advanced analytics.
- Microsoft partnered with Emerging Prairies in Fargo, North Dakota, on the Grand Farm, a world-class research and education initiative focused on advanced technologies in agriculture. Working with dozens of regional and national partners, the Grand Farm combines a growing test site for ag-tech experimentation with an Emerging Digital Academy focused on robotics and coding to advance digital agriculture skills. The Grand Farm also encompasses an innovation platform that entices venture funding, research, and the acceleration of ag-focused startups.
- Microsoft works with the nonprofit International Crop Research Institute for Semi-Arid Tropics (ICRISAT) to enable farmers to take advantage of the power of AI to increase yields. Last year, ICRISAT received a Microsoft AI for Earth grant to support continued development of AI solutions that focus on sustainable agriculture in developing parts of the world.
- Microsoft and ICRISAT developed the AI Sowing App. The app draws on more than 30 years of climate data combined with real-time weather information, and it uses sophisticated forecasting models powered by Microsoft Azure AI to determine the optimal time to plant, the ideal sowing depth, how much fertilizer to apply, and more. That information is then shared with farmers through text messages, which they can receive on a basic-feature phone.
- According to the UN Food and Agriculture Organization, increasing production is only part of the answer to the problem we face in feeding the world's growing population. Almost as important is reducing the amount of food wasted every year.[4] AI can play a significant role, ensuring that

4 The UN Food and Agriculture Organization estimates that one-third of all food produced for human consumption—1.3 billion tons—is wasted annually. https://www.fao.org/3/i3347e/i3347e.pdf

highly perishable foods, such as milk, make it from the farm to the processing plant quickly and safely.

- A pioneering AI-based operations management system is improving efficiency, ensuring safety, and lowering costs for a milk processing and manufacturing facility operated by Australian Consolidated Milk (ACM) in Girgarre, Victoria, in Australia. Designed to handle 200 million liters of milk, the facility uses a state-of-the-art information system built on Microsoft Dynamics 365 and Azure Cognitive Services to automate the process of pumping milk from tanker trucks to silos. The system monitors quality and creates a rich data trail so the milk can be tracked from the farm to the store.
- ACM also has implemented a sophisticated temperature monitoring system that uses sensors and Microsoft technologies, including Azure, to detect temperature fluctuations in storage tanks and trucks, sending alerts to farmers and drivers. If the system senses an electrical failure on a farm, for example, it can automatically dispatch trucks to collect the milk before it spoils.

For more initiatives related to Goal 2, see our efforts to replenish water in water-stressed areas where we operate and to help farmers use water more efficiently (Goal 6), promote decent work and economic growth for the digital age (Goal 8), extend internet and electricity to rural areas around the world (Goal 9), protect ocean resources from illegal fishing (SDG 14), and improve agricultural yields through technology and big data (Goal 15).

World Health Data Hub

Dr. Samira Asma

Assistant Director-General, Division of Data, Analytics and Delivery for Impact World Health Organization

What has been the biggest surprise in your partnership with Microsoft?

Even before the coronavirus pandemic, the world needed more timely, reliable, actionable, and accessible data to make swift decisions. The pandemic has both underscored this need and highlighted the urgency of working together to strengthen the global data architecture, fill data gaps, and resolve fragmentation.

In response, WHO and technology partners such as Microsoft and Avanade have joined forces to meet these data challenges and ensure we are better prepared for future outbreaks. The result of this collaboration is the World Health Data Hub—the new "home of the world's health data." The Hub is a realization of Dr. Tedros Ghebreyesus' transformative vision for WHO to be a global leader in health data and analytics technology. As an interactive digital platform, it provides easy access to view and download health data along with powerful visualization tools to better understand trends, patterns, and connections. It also allows countries to securely upload and review their data and fulfills WHO's commitment to provide complete, transparent, and open data as a public good.

> **"Sustainability requires embedded knowledge and expertise."**

This monumental effort would not have been possible without public-private partnerships like the one between WHO and Microsoft. The biggest surprise from our partnership has been the alignment of comparative strengths to begin developing the World Health Data Hub. With the convening power of WHO and the cutting-edge tools and technology from Microsoft, we've been able to go farther and faster than ever before. Above all, the strongest aspect of this partnership is that it is built on shared values: mutual trust, respect, and accountability for results.

Goal 17 calls for revitalized partnerships to achieve the SDGs. Is the private sector fulfilling its potential as a contributor to SDGs?

The coronavirus pandemic has underscored the impact of health on all SDGs, and Target 17.5 specifically calls for investment in least-developed countries (LDCs). These LDCs and small island developing states are at greatest risk of falling behind without significant capacity building and infrastructure. The pandemic also has shown that inequalities persist across all stratifies—from income to sex, age, geographic location, ethnicity, and more. Sustainable capacity building in low-resource settings will be critical to reducing these inequalities and ensure health for all.

There are 17 integrated SDGs that must be met by 2030, but without accurate health data it is hard to tell how we are doing. The private sector has an important role to play in filling these gaps by investing in areas like training and infrastructure. In terms of Goal 3, it also has potential for greater support in areas such as public health surveillance, precision medicine, patient care, and translating health data into effective policy design. The private sector is an important contributor to achieving all SDGs and, as WHO's partnership with Microsoft has shown, can have great impact when working with a shared purpose and objectives. There is always more to be done and we will face many challenges to get back on track to 2030, but if we come together as a global community, then we can better tackle these challenges head-on.

In the 2030 Agenda for Sustainable Development, "financial resources, technology development and transfer, and capacity building" are listed as three means of implementation for the SDGs. Where is the private sector falling short?

WHO's recent assessment of health information systems capacity in 133 countries found that only 40 per cent of deaths worldwide are registered and only 27 per cent of countries have sustainable capacity to survey public health threats (SCORE for Health Data Technical Package). These data gaps and inequalities are stark, and the coronavirus pandemic has exacerbated them even further. With 67 of the 231 SDG indicators relying on a functional civil registration and vital statistics system, how can we reliably meet the SDGs when we cannot even count the number of deaths in a country? Moreover, recent primary data is still lacking for many SDG indicators, hindering our ability to accurately monitor progress.

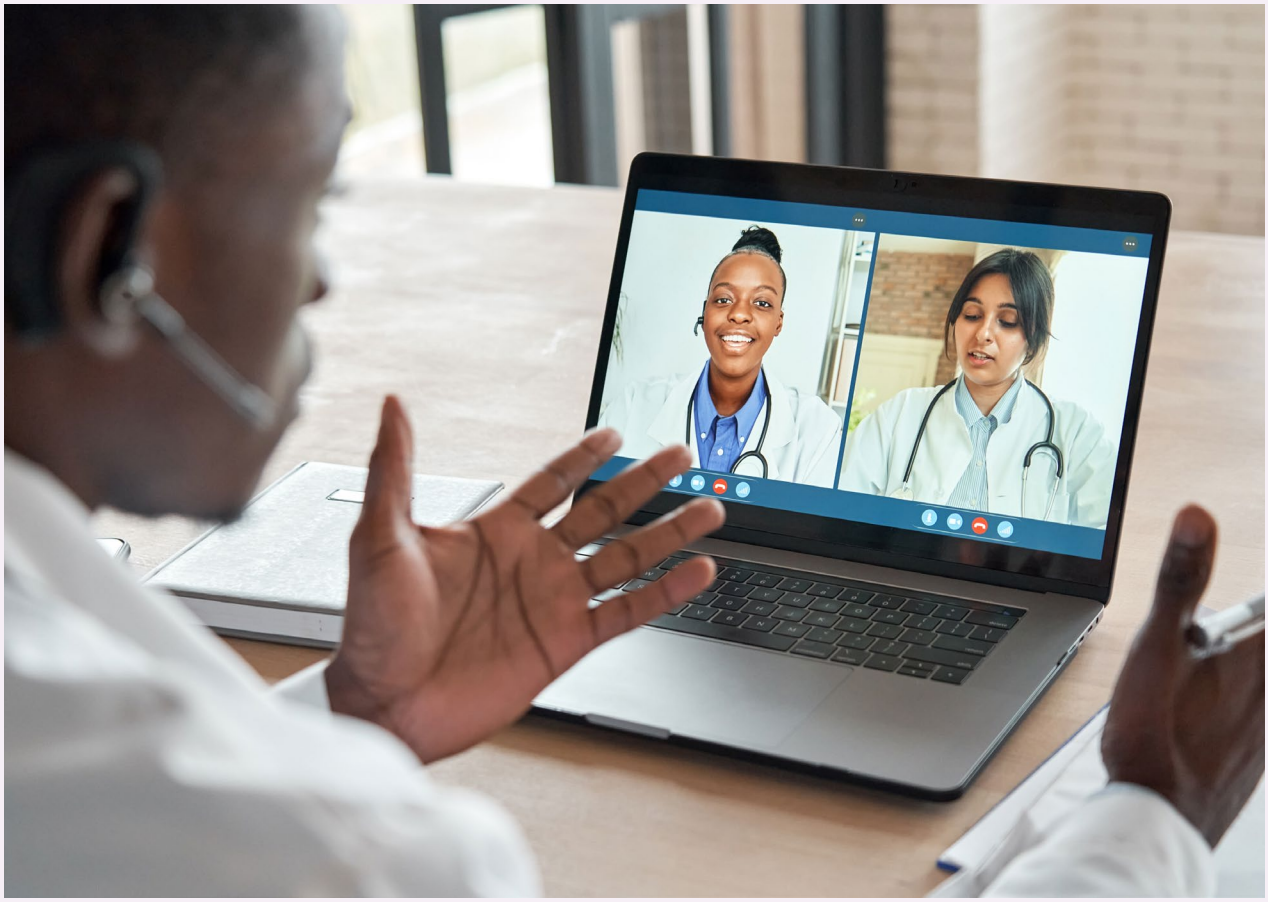
The private sector has access to unique resources and technology that are critical to fill these gaps and reduce inequalities—for example, by addressing the growing digital divide. Investing in the weakest areas highlighted by SCORE and similar assessments would be a huge step toward improving the quality and timeliness of data at the collection point.

However, it is not just about funding. Sustainability requires embedded knowledge and expertise. While funding can help address immediate shortfalls, technology development and transfer are equally important. Implementing systems like the World Health Data Hub will require information technology (IT) infrastructure, training, and ongoing technical support for which the private sector plays a key role.

The coronavirus pandemic has underscored the need for efficient, multilateral cooperation that is responsive to unique country needs and reflects their specific priorities. The private sector already has made significant contributions, but we still have a long way to go. WHO welcomes all new ideas and opportunities to collaborate with speed and scale.

How should companies think about what truly counts as "sustainable" when they report on the SDGs?

Every data point is a person. A place. An event. It tells a story about what is happening in the lives and livelihoods of people. When we talk about sustainability, this means that data is both representative of and used by the people for whom it is collected.



A guiding question at WHO has always been, "Is anyone being left behind?" Our work centers around improving data availability, quality, and timeliness to help answer this question. And as mentioned, we continue to uncover many gaps that require urgent investment and capacity building.

Sustainability also means responding to country priorities and needs. For instance, the coronavirus pandemic has highlighted not only the inability to report data in low-resource settings, but also that, even in high-resource settings, health systems continue to face challenges with fragmentation and outdated tools. With modern technology and digital solutions at our disposal, we have a collective responsibility to make sure that data is accessible as a global public good while also ensuring the privacy of individual information.

Every country should have self-reliant data and health information systems to guide strategic policy dialogue and best serve the needs of their populations. We live in an interconnected world, and data systems must reflect that and not operate in isolation.

As Dr. Tedros often says, we cannot make progress unless we can measure progress. As part of WHO's transformation agenda, the Division of Data, Analytics and Delivery for Impact was established to improve measurement, focus on results, and deliver impact. Since its creation—amid historic challenges—the Division has worked with partners to build a strong foundation for data and health information systems strengthening, data governance, and country capacity building that will accelerate progress toward the SDGs.

Sustainability is ultimately about the ability to assess impact and measure progress over time. As we continue to develop and deploy the World Health Data Hub and other key initiatives, our takeaway message is that data cannot affect us all unless it reflects us all.

Goal 3: Good Health and Well-Being

The coronavirus pandemic remains an unprecedented global health challenge. It has demonstrated the vital nature of technology in today's healthcare landscape, especially in times of crisis. We believe that its importance will only grow over time.

Microsoft remains focused on providing digital technologies and support to help people around the world access better healthcare. **Digital technologies and tools have been critical for expanding access** to quality essential healthcare services and **access to safe, effective, quality, and affordable essential medicines**, in line with Target 3.8. Similarly, Target 3.d calls for strengthened capacity of all countries, in particular developing countries, for early warning, risk reduction, and management of national and global health risks—another area where digital technologies can play an important role.

Our programs

We are focusing our efforts in where we believe data, analysis, and the skills of our data scientists can have the biggest impact, and we dedicated $20 million to this specific effort as part of the

3 GOOD HEALTH AND WELL-BEING

We are focusing our efforts in where we believe data, analysis, and the skills of our data scientists can have the biggest impact.

HIGHLIGHT

On January 30, 2020, WHO declared the COVID-19 outbreak a public health emergency of international concern. By March 11, 2020, WHO declared that it had evolved into a pandemic.

The coronavirus pandemic has underscored the need for efficient, multilateral cooperation to accelerate progress toward global health goals, deploying the innovation and expertise that public-private partnership provides. In response, Microsoft and Avanade are collaborating with WHO and other partners to create the world's first comprehensive, end-to-end data solution for global health. The World Health Data Hub will provide an interactive digital platform and trusted source for all global health data, fulfilling WHO's commitment to provide health data as a public good and ensure that every citizen in every country has a chance for a healthier life.

larger Microsoft commitment to contribute to the coronavirus response efforts.

- In May 2021, Microsoft mobilized resources to support the coronavirus response in India. We became one of the founding members of the Global Task Force on Pandemic Response. As technology plays a critical role in the continuing international response to the pandemic, we are ensuring that every commercial and government organization in India has free access to the full capabilities of Microsoft Teams as they respond to the crisis. Microsoft Philanthropies also has joined with other organizations to purchase ventilators, oxygen concentration devices, and other needed medical supplies for India.
- Since the pandemic was declared, the Microsoft Services Disaster Response program has handled coronavirus pandemic relief efforts that have been requested by countries, states, regions, and not-for-profit organizations across the globe.
- With the help of Microsoft Services Disaster Response experts, UNICEF has been working to enhance and improve the security and infrastructure of the COVAX information hub, which helps provide key stakeholders across the COVAX facility—including governments, key partners, and other interested parties—with immediate and up-to-date information on COVAX allocations and delivery. Microsoft experts also work alongside UNICEF to track and monitor the distribution of vaccines from manufacturers through to local market delivery, increasing efficiencies and sharing real-time data with key stakeholders. This enables them to make critical decisions, creating a more cohesive process in support of the COVAX facility.
- Employees volunteered to help the city of Seattle operate the largest civilian-run vaccination site. Over 1.5 million residents were vaccinated through the initiative.
- We mobilized the AI for Health program to support those focused on the front lines of coronavirus research, awarding more than 150 grants to coronavirus research projects around the world.
- Microsoft, along with a consortium of public and private partners, came together to address vaccination and essential health services within underserved and vulnerable communities as well as to create a framework that will serve future vaccination/ health efforts, so the ongoing health needs of the underserved are not forgotten. This model of public-private partnerships has proved to be very successful by combining trusted organizations embedded within these communities with technology and national/ international partners who have the resources to assist.
- Microsoft continues to support Folding@home, a global organization that is researching SARS-CoV-2 proteins that could help with designing therapeutics.
- The Azure Health Bot service is a solution that uses AI to help the Centers for Disease Control and Prevention and other

frontline organizations respond to patient inquiries, freeing up doctors, nurses, administrators, and other healthcare professionals to provide critical care to those who need it.

- We share good practices with Microsoft suppliers to prevent and minimize the impact of the coronavirus pandemic on supply chain workers. And we are driving suppliers to improve their health and safety management to minimize the causes of hazards in the working environment.

Our partnerships

- After a successful two-year partnership, Microsoft announced the acquisition of Nuance, which will enable clinicians with advanced decision-making capabilities while allowing for better connections with patients through the use of advanced AI and ambient clinical intelligence.
- Microsoft and Teladoc Solo announced a partnership to create a unified practice experience for clinicians. This collaboration will combine the Teladoc Solo platform and Microsoft Teams, simplifying how health organizations and clinicians work by streamlining the technological and administrative processes associated with providing virtual care.
- Broad Institute and Verily partnered with Microsoft to deliver advanced technology, industry expertise, and scale that can help researchers interpret an unprecedented amount of biomedical data and derive insights to advance the treatment of human diseases.
- Microsoft Airband Initiative partner Mawingu Networks is working in Laikipia County, Kenya, to provide connectivity to unserved rural health clinics. Working with local governments, Mawingu is deploying infra-structure to help health clinics utilize videoconferencing tools that connect rural clinics with larger hospitals in Nairobi and to ensure rural patients are provided the highest quality of care.

Our support

- Microsoft is committed to working closely with customers, public health teams, and partners across the globe to achieve greater health equity for the communities that they serve. Specifically, Microsoft is focused on improvements in vaccine equity, AI for health equity, and decreasing the digital divide, including through partnerships with the HLTH Foundation on health equity and on health system resilience.
- We empower nonprofits, researchers, and organizations tackling some of the toughest challenges in global health through AI for Health, a $60 million, five-year philanthropic program.
- At Johns Hopkins Medicine (JHM) in Baltimore, Maryland, scientists and physicians are collecting and tapping vast amounts of data from clinical care, genomics, and even wearable devices. JHM uses the data to better predict disease progression and to pinpoint individual treatments, supported by Microsoft Azure and analytics tools. The hospital announced a five-year partnership with Microsoft that will support new discoveries as part of JHM's inHealth precision medicine initiative.
- To improve public health and sanitation, Thailand's Ministry of Public Health takes advantage of Microsoft AI and Cognitive Services to capture, track, and share data on public restrooms—a breeding ground for diseases, if not maintained—through a mobile app. Using Microsoft technologies, like machine learning and computer visualization, the app helps government agencies identify public health risks and disease hotspots to mitigate the risk of epidemics.

For more initiatives related to Goal 3, see our efforts to support clean water and sanitation by safeguarding the world's water resources (Goal 6), provide complimentary connectivity to quarantine centers in India (Goal 9), install smart water meters in hospitals in South Africa (Goal 11), and halt cyberattacks targeting the healthcare sector during the coronavirus pandemic (Goal 17).

Digital equity for underserved communities

Bryan Kariuki

Board Member, Mawingu Networks

What has been the biggest surprise in your partnership with Microsoft?

As an internet service provider working with rural communities in Kenya, the largest issue we face is one of inequality, both in terms of access to economic opportunities and access to public participation and services. It is critically important that we get everyone in Kenya access to the internet, and our partnership with Microsoft has enabled us to explore different technologies and scale our networks across the country. Using the tools available to us across the Microsoft portfolio, we can provide last-mile access to the most underserved communities at an affordable price point. In addition, we have been able to collaborate to focus our efforts on marginalized communities like women and girls, providing not just connectivity, but digital equity.

> **“Companies are having to think more creatively about what true sustainability means ....”**

> “Without a core focus on capacity building to enable technology development and use, as well as to catalyze financial resources, growth will not be truly sustainable.”

Goal 17 calls for revitalized partnerships to achieve the SDGs. Is the private sector fulfilling its potential as a contributor to SDGs?

The private sector is critically important to sustainable development, with partnership being an essential component of this work. In recent years we have seen a shift toward increased collaboration between public and private partners and a strong focus on sustainable and scalable business models. Because of the resources available from organizations like Microsoft and the private sector's focus on expediency and innovation, we have access to collaboration and tools that we otherwise would not. We are finding new ways, every day, that the internet can be made more valuable, and we are working with Microsoft to move from a philanthropic model to a commercially viable approach to last-mile connectivity.

In the 2030 Agenda for Sustainable Development, "financial resources, technology development and transfer, and capacity building" are listed as three means of implementation for the SDGs. Where is the private sector falling short?

A key role of the private sector when looking at implementation of the SDGs is to enable local partners who have strong community ties and an understanding of local needs and the local landscape. Without a core focus on capacity building to enable technology development and use, as well as to catalyze financial resources, growth will not be truly sustainable. By placing a strong focus on collaboration and partnership, not only can we achieve results connecting the unconnected but also we can think more holistically about internet access and digital equity. Using local partners and working with the public sector enables private-sector partners to create tools that have tangible value and promote inclusion globally.

How should companies think about what truly counts as "sustainable" when they report on the SDGs?

Companies are having to think more creatively about what true sustainability means and about how to embed sustainability into their practices. In a world where consumers are increasingly demanding greater responsibility of corporations, Microsoft's mission of empowering every person and organization on the planet to do more remains critical. In partnership, both Microsoft and Mawingu recognize that ubiquitous access both to internet and to energy is critical to live that mission. In addition, as a company, we know that tools created to promote digital inclusion are key, allowing connectivity to provide value to everyone globally.

Goal 5: Gender Equality

Gender equality is a foundational goal that is critical to the success of all the SDGs. Countless studies have shown that organizations across the public and private sector with greater gender diversity are more innovative, successful, and adaptive. At the same time, the coronavirus pandemic presents new challenges, including increased risk of violence against women and girls, job losses, and the caretaking burden that has fallen disproportionately on women. Microsoft is committed to advancing gender equality in our company and in the communities where we operate, in line with Target 5.5, which is aimed at ensuring women's full and effective participation in leadership at all levels of decision-making in political, economic, and social life. Microsoft also contributes to Target 5.b, which calls for enabling technology, in particular ICT, to promote the empowerment of women.

Our programs

- Microsoft publishes free STEM resources, such as the Action Guide toolkit, to help educators and parents inspire girls and close the gender gap in STEM fields.

5 GENDER EQUALITY

Microsoft believes that technology can empower everyone.

HIGHLIGHT

Working with Unilever and internet service provider Mawingu in Kenya, Microsoft Airband is supporting connectivity for female shopkeepers. Mawingu Networks provides Wi-Fi service that helps the shopkeepers increase access to financial services, including affordable credit and integration into value chains and markets. In addition, the project provides shopkeepers with a digital platform for business-skills building and training. The initial pilot has connected more than 300 shopkeepers, with an objective to replicate the pilot across Kenya and other markets like South Africa.

- The Microsoft DigiGirlz program gives high-school-age girls the chance to participate in hands-on computer and technology workshops, learn about careers in technology, and connect with Microsoft employees.
- Through our Skills for Jobs and Livelihoods program, Microsoft is committed to creating opportunities for women to gain the digital skills they need to improve their livelihood and gain employment or micro-entrepreneurship opportunities. We are partnering with nonprofits around the world to equip women with access to digital literacy training and digital skills to help empower them to achieve more. For example:
  - **In Japan**, we partner with the Single Mother's Sisterhood to help single mothers, one of the most underserved segments in Japanese society, develop digital skills and leadership training and connect them with work opportunities.
  - **In Latin America**, we launched TodasConectadas, an initiative with Mastercard and UN Women and several countries in the region that will provide digital and financial skills for more than 3 million women.
  - **In Africa** we have partnered with Tech4Dev on a "Women Techsters" initiative to train girls and women ages 16-40 across 54 countries in Africa with coding and deep technical skills to bridge the technology divide and ensure equal access to opportunities throughout the continent.
  - SAP and Microsoft have partnered in India to launch Tech Saksham, a tech skilling program designed to empower underserved female students toward tech careers.
  - Microsoft publishes detailed data on gender representation and pay within Microsoft, providing insight into the progress and work that needs to be done to achieve full gender equality at the company.
  - We are helping other companies reach the UN's gender diversity goals by 2030 by showcasing revolutionary products, such as DEInamics, as part of our #BuildFor2030 campaign.
  - We required our devices suppliers and their factories to implement nondiscrimination policies and ensure equal opportunities for vulnerable groups, including women, in hiring and employment.

Our partnerships

- We partner with women-centered ProMujer working to advance equality in Latin America, including financial inclusion, entrepreneurship, and health, enabling digital transformation and opportunities for digital inclusion of the women they serve.

- Through targeted skilling efforts, we help women access careers in in-demand fields. We partner with CyberShikshaa, a nonprofit in India, and Junior Achievement in South Korea to help women returning to work to train for careers in cybersecurity.
- Our strategic partnership with the National Center for Women & Information Technology Aspirations in Computing program has empowered more than 13,000 high-school-age girls to participate in the field of computer science.
- Microsoft initiated Codess, a community for female coders established to explore ways to promote gender diversity in the engineering field.
- With Microsoft's support, CARE launched its dashboard for their global Women's Empowerment program, allowing managers and users to learn how the coronavirus pandemic has affected women respondents globally.
- Launched in August 2020, the USAID/Microsoft Airband Initiative is a public-private partnership that seeks to bring internet access to more women around the world, expanding women's economic opportunities and enabling digital development services. Since women's empowerment is key to sustainable community development, Microsoft and USAID focus their collaboration on creating sustainable and gender-equitable connectivity offerings. Projects are being deployed with six participating Airband partners across the globe, including: New Sun Road (Guatemala), Bluetown (Ghana), AirJaldi (India), AndiTel (Colombia), Mawingu (Kenya), and M-KOPA (Kenya).
- In July 2021, in addition to our engagement at the 2021 UN Generation Equality Forum (GEF), a global gathering for gender equality convened by UN Women, Microsoft signed on to serve as one of the leaders of the GEF's Technology and Innovation Action Coalition, which focuses on gender equity in the access, use, and design of technology and innovation. Embracing our unique position, we have sought opportunities to work with our growing network of UN stakeholders and build on existing efforts to bridge the digital divide by addressing these issues in the specific context of gender equality. We also announced a new collective commitment, spearheaded by Microsoft, aimed at addressing disparities in the quality, availability, and use of gender-related data. While data plays an increasingly important role in our lives, access to quality data on gender has lagged. This includes data that can be disaggregated by gender, data that utilizes gender as a primary marker, and data that reflects different lived experiences related to gender. Incorporating standards articulated by Data2X among others.

Our support

- Microsoft has been a strong supporter of the TECHNOLOchicas program, both through financial support and internal engagement.
- Microsoft recently supported the student chapter expansion Women in Cybersecurity, a nonprofit with the mission of recruiting, retaining, and advancing women in cybersecurity, across 24 countries.

For more initiatives related to Goal 5, see our efforts to promote quality education and digital skills programs for young people worldwide, with a focus on underserved populations (Goal 4), and to teach coding and technology skills to underrepresented groups (Goal 10).

Goal 6: Clean Water and Sanitation

Billions of people worldwide still lack access to clean water and basic sanitation. The coronavirus pandemic has put this issue in the spotlight, since effective hygiene and sanitation are critical to stopping the spread of pathogens. Looking forward, based on current trends, more than half of the world's population could be living in water-stressed areas by 2050—dramatically heightening the risk of water insecurity, conflict, and suffering. To address water scarcity, Target 6.4 calls for a substantial increase in water-use efficiency across all sectors by 2030, in addition to sustainable water withdrawal and replacement strategies. Microsoft is committed to increasing our own water efficiencies, replenishing water in stressed areas where we operate, and playing a role in encouraging responsible water resource management.

Our programs

- Microsoft's Climate Innovation Fund invested $10 million in the Emerald Technology Ventures $100 million Global Impact Fund, whose investors also include Temasek, Ecolab, and SKion Water. The fund will partner with early- to

6 CLEAN WATER AND SANITATION

By 2030 Microsoft will replenish more water than it consumes.

HIGHLIGHT

By 2030, Microsoft will be water positive, meaning that we will replenish more water than we use. We are tackling our water consumption in two ways: reducing our water use intensity—or the water we use per megawatt of energy used for our operations—and replenishing water in the water-stressed regions where we operate. This means that by 2030 Microsoft will replenish more water than it consumes on a global basis. In 2021, Microsoft was awarded the US Water Prize for Outstanding Private Sector Organization for adopting our water-positive program and committing to being water positive by 2030.

Our reduction in water use intensity and our replenishment commitments address the key issue of water availability, which is the amount of water that can be used to meet demand. However, that is only part of the challenge. Equally important is the issue of accessibility, which is the supply of safe drinking water and sanitation. That is why we are partnering with NGOs to ensure that more of the world gains access to clean drinking and sanitation water. Together with Water.org, a leading global nonprofit focused on underserved communities, we have helped empower an estimated 95,000 people with access to safe water or sanitation. Our programs with Water.org account for over 670 million liters of water benefit per year in areas facing water scarcity and climate challenges that overlap with our business operations in strategic locations.

expansion-stage companies from around the world, driving innovation and its adoption in water technologies. It will focus on pressing challenges, including conserving water resources, improving water efficiency and quality, avoiding carbon emissions in water treatment, and adapting to climate change. This fund is one of few solely focused on water strategy

- Microsoft has invested in replenishment projects that are expected to generate over 1.3 million cubic meters of volumetric benefits, bringing us to 21 replenishment projects to date in nine water basins across the globe.
- Through AI for Earth, Microsoft has supported 116 projects that create data-driven solutions supporting water resources monitoring, modeling, and management centered around water.
- We are innovating in water collection, treatment, reuse, and water use intensity at our campuses and datacenters across the globe. For example, Microsoft has pioneered an industry standard for water conservation in corporate facilities by developing the first net zero water campus, in Silicon Valley, California.
- As a leading company committed to using its voice for policy, Microsoft has engaged in the following activities:
  - Microsoft advocated for clean energy and environmental provisions in the US Infrastructure Investment and Jobs Act, which commits over $8 billion for western water infrastructure and significant funding for water-related and other resilience efforts.
  - In 2020, Microsoft joined WaterEurope, the leading association in Europe focused on technology and innovation aspects of water, with a focus on Digital Water. We have called for the inclusion of water-related topics in EU polices, such as water infrastructure into the COVID-19 recovery packages.

Our partnerships

- Progress toward our commitment is made possible due to several strategic partnerships with nongovernmental organizations, such as Bonneville Environmental Foundation, the Water Resilience Coalition (WRC), the Nature Conservancy, and implementation partners, including Trout Unlimited, Ducks Unlimited, the National Audubon Society, and WaterAid. We also participate in the California Water Action Collaborative, a network of over 25 organizations learning together, collectively developing projects, and advancing innovative solutions to improve water security and resilience across California.

- Microsoft is a founding member of the WRC, launched in 2020 as an initiative of the UN Global Compact CEO Water Mandate. The coalition has grown to over 25 industry-leading corporations, all of whom have pledged to work collectively on availability, quality, and accessibility issues in water-stressed locations.
- In 2020, we began our work with Water.org to help people living in underserved communities gain lasting and reliable access to safe drinking water and improved sanitation solutions. This includes household taps and toilets, piped connections, rainwater harvesting, water storage, purification, and community filtration. In fiscal year 21, we helped more than 95,000 people in India and Indonesia and expect to reach at least 840,000 people by September 2023. Nearly all the beneficiaries are women and live below the poverty line. These programs account for over 670 million liters of water benefit per year in areas facing water scarcity and climate challenges that overlap with our business operations in strategic locations.
- The Water Risk Monetizer and Smart Water Navigator are powerful tools developed by Ecolab in partnership with Microsoft and S&P Trucost. The Water Risk Monetizer provides actionable information to help organizations understand water-related risks and quantify them in financial terms. The Smart Water Navigator helps companies reduce their water usage at a facility level. Both tools are free of charge.
- With World Resource Institute (WRI) and BlackRock, Microsoft sponsored Wave2Web, a global hackathon challenge. The organizations worked together to develop new datasets on water stress in emerging markets, inviting students and young professionals to develop predictive modeling to forecast water availability in reservoirs near Bengaluru, India. The Wave2Web hackathon included 2,130 participants across 293 teams globally. Twenty-five shortlisted teams received hands-on support to develop unique, forward-looking solution, and the three winners showcased their prototypes in front of state and national stakeholders at an online town hall conducted in October 2021.
- Microsoft is advancing the development of tools and resources to enable companies to step forward by assessing and improving their water stewardship actions in partnership with the CEO Water Mandate:
  - Water Action Hub Platform 4.0, presented during the 2021 World Water Week, was developed by the CEO Water Mandate and made possible with support from Microsoft. The latest version of the hub connects more than 1,500 projects with over 1,000 partner organizations worldwide. It also helps direct users to water tools by Ecolab, World Wildlife Fund, WRI, and other leading organizations.
  - Nature-Based Solutions Tool is a web-based tool developed to serve as a key starting point for organizations looking to invest in nature-based solutions and for those wishing to learn more about benefit identification and accounting. The tool was developed based on and in accordance with the published Benefit Accounting of Nature-Based Solutions for Watersheds Guide.
  - Convened and facilitated by Ag Innovations, the California Water Action Collaborative is a network for diverse stakeholders to come together and pursue collective action projects that will improve California's water resilience for people, business, agriculture, and nature.
- Our research on Dependable IoT is enabling water positivity for Microsoft and other companies by developing the capability to ensure the accuracy of sensors used to monitor water leaks, quality, and efficient usage. With the incorporation of this capability into Azure Verified Telemetry for IoT, we are partnering with FluxGen, a sustainability startup in India that develops AI and IoT-based water management solutions to make industries water positive. The partnership is through the Microsoft-Accenture Amplify program and Microsoft Research India's Center for Societal Impact through Cloud and AI.
- Microsoft is working with WRI to provide partners with access to the latest Coupled Model Intercomparison

Project Phase 6 (CMIP6) global climate projections, as well as socioeconomic development projections based on intergovernmental Panel on Climate Change scenarios, on Microsoft Azure. Partners are now able to model global water supply and demand with CMIP6 data and scenarios for the first time, forecasting real-time water availability.

- Enova, a joint venture between Majid Al Futtaim and Veolia, is an integrated energy and facilities management provider offering comprehensive services and performance-based solutions to its clients to help achieve their financial, operational, and environmental targets. Powered by over 4,500 employees and a strong, scalable, and secure cloud infrastructure on Azure, Enova has achieved total savings of 320 million kWh of energy, 5 million cubic meters of water, and 210,000 tons of CO2 emissions. In 2021, Enova adopted a new business model involving ICONICS and other tools supported by Azure cloud services and over 320 customized fault and ECM rules. Covering 28 medium to large sites, this resulted in an additional 2 per cent of energy savings and 17–25 per cent improvement in staff efficiency.

- In Puerto Rico, New Sun Road and VPNet, a local internet service provider and Airband partner, are providing off-grid energy systems to enable water pumping, management, and internet access. These systems will serve as the anchor for more reliable energy, water, and internet access through hotspots and community-relevant digital skilling resources in rural communities on the island.

- Deltares, a world leader in water and subsurface with expertise in food risk forecasting and ecosystem monitoring, used Azure and the Microsoft Planetary Computer to generate two global multidecade datasets: a Global Flood Risk dataset to assess the risk of flooding, in particular the impact in coastal areas subject to sea level rise, and a Global Water Reservoirs dataset to determine water availability for up to 3,000 reservoirs around the world for both drinking water and hydropower planning. Both datasets help organizations relate changing water conditions to humanity, infrastructure, and environments.

- Microsoft supported a forest and water management project by Conservation Science Partners by providing resources around AI, machine learning, and cloud computing on the Microsoft Azure platform. Using Azure, Conservation Science Partners aggregates and analyzes satellite imagery at high resolutions to better understand how the forest cover across the western United States changes from forest disturbance events and how this influences water supply records. By linking the forest data to water flow rate data records from before and after a forest disturbance, an analysis can provide insights for conservation planning and adapting forest and water management to future climate change impacts. As a result, local communities, regional organizations, and the federal government can better manage and protect these vital resources.

- In Australia, Microsoft partners with the CSIRO to leverage AI and accelerate marine debris data collection. Our goal is to improve our understanding of what, where, how, and why plastic pollution ends up on land, along our coasts, and in the ocean.

For more initiatives related to Goal 6, see our efforts to employ technology to help farmers use water more efficiently (Goal 2), install smart water meters in hospitals in South Africa (Goal 11), and use AI to track destructive algae blooms in Guatemala's Lake Atitlán (Goal 14).

OUR COMMITMENT: WATER POSITIVE BY 2030

Replenishing more water than we use by 2030

We will reduce the water intensity of our direct operations and replenish in water-stressed regions where we work.

Reducing water in data center operations

We will reduce water waste in our **datacenter operations by 95 percent** by 2024

Increasing access to water

We will provide more than 1.5 million people with access to clean water and sanitation services by 2030.

Digitizing water data

We will use our technology to generate actionable insights, increase awareness of water issues, and optimize water replenishment

Empowering our customers and partners

We will continue to develop solutions to help customers and partners understand water-related risks.

Investing in the future of water

We will work with companies around the world to drive innovation and adaption of water technologies.

Influencing policy

We will use our voice at the local, national, and global levels to increase water access and availability, improve quality, and ensure the integration of water into climate strategies.

Driving collective action

We will partner with others to drive collective actions to increase access and reduce water stress.

Source: 2021 Environmental Sustainability Report: A Year of Action, Microsoft Corporation, 2022.

Goal 7: Affordable and Clean Energy

To avoid the worst effects of climate change, the global economy must transition a huge portion of its energy supply from fossil fuels to renewable energy sources. Target 7.2 calls for substantially increasing the share of renewable energy in the global energy mix by 2030. At the same time, providing consistent and reliable power to underserved parts of the world is critical to driving economic development and to building a pathway out of poverty. Microsoft has set ambitious goals to eliminate its carbon footprint and transition to renewable energy sources to power its operations. We also invest in innovative solutions and new technologies that show promise for delivering clean energy and a sustainable future. By sharing our findings and supporting partners in the private and public sectors, we aim to support Target 7.a, which calls for **enhanced international cooperation to facilitate access to clean energy research and technology.**

Our programs

- Since 2012, Microsoft has charged its business divisions a fee for emissions associated with energy consumption

7 AFFORDABLE AND CLEAN ENERGY

Microsoft has set ambitious goals to eliminate its carbon footprint.

HIGHLIGHT

As one of the largest purchasers of renewable energy in the world, we are well on our way to reaching our goal of 100 per cent renewable energy by 2025. We began purchasing renewable energy via long-term PPAs in 2013 to match our electricity consumption at Microsoft datacenters, buildings, and campuses worldwide, steadily signing more deals in subsequent years. Microsoft has signed new PPAs for approximately 5.8 gigawatts of renewable energy across 10 countries around the globe. This procurement brings our operating and contracted renewable energy projects to 7.8 gigawatts globally.

At Microsoft we have a long-term vision that we refer to as 100/100/0. That means on all the world's grids, 100 per cent of electrons, 100 per cent of the time, are generated from zero carbon sources. We call this a vision because we alone cannot control the outcome. Like other users, our datacenters and our offices around the world simply plug into the local grid, consuming energy from a vast pool of electrons generated from near and far, from a wide variety of sources. So, while we cannot control how our energy is made, we can influence the way we purchase our energy. That is why Microsoft announced its own 100/100/0 commitment—one that acknowledges the limits on our ability to control global grid infrastructure, but which maximizes our influence on it. By 2030, Microsoft will have 100 per cent of our electricity consumption, 100 per cent of the time, matched by zero carbon energy purchases.

from the use of datacenters, labs, and offices. We took this step to hold our business divisions financially responsible for reducing their carbon emissions. In 2019, we doubled this fee to $15 per metric ton on all carbon emissions. The carbon tax increases incentivize our business divisions, operations, and suppliers to take responsibility for emissions. The fee is used in part to cover the costs of offsetting those emissions through renewable energy investments.

- We released a set of in-depth capacity-building tools and resources, developed in partnership with ENGIE Impact, WSP, and CDP to help companies, especially our suppliers, report their GHG emissions and set strategies to reduce emissions from electricity. In July 2021, 87 per cent of our in-scope suppliers reported their emissions to CDP, up 12 per cent from 2020.
- We are bringing new research to bear, including a white paper authored by RMI that highlights the potential for hourly energy monitoring tools to provide transparency into supply and demand for zero carbon energy. The paper illustrates that hourly renewable supply and demand matching strategies can help lay the groundwork for a decarbonized grid.
- We are pursuing Zero Carbon certification for our Silicon Valley campus and Redmond campus modernization project with International Living Futures Institute. We have committed to certifying our Microsoft datacenters and major offices to LEED Gold or Platinum.
- We are enabling more granular measurement with data called Locational Marginal Emissions (LMEs), which considers the condition of the power grid at the time and location that the clean energy was produced. We partnered with REsurety to create an LME tool on Azure that calculates the decarbonization impact of our renewable energy supply with greater accuracy, beginning first with a pilot in the Electric Reliability Council of Texas.
- Microsoft ensures that all our products meet or exceed voluntary energy efficiency standards, including Energy Star. We continually strive to improve the energy-saving features of our hardware product portfolio to help our customers save energy.
- Through our Climate Innovation Fund, we invested in HomeBiogas (HBG), a leader in developing affordable, simple-to-use biogas systems, enabling people and businesses around the globe to turn their own organic waste into renewable energy and liquid fertilizer on site. A typical household can save six tons of CO_2 emissions a year with the entry-level biogas system. HBG serves over 10,000 households across more than 100 countries.

Our partnerships

- Supporting our goal of 100 per cent renewable energy by 2025, we have executed over 35 new PPAs across the globe. Examples include:
  - With Volt Energy, a national African American-owned solar development company, we have contracted a 250-megawatt portfolio of solar projects. The intent of the portfolio is to create new opportunities for under-resourced communities and to help pursue diversity in the renewable energy industry.
  - Our 500MW PPA with Sol Systems is a first-of-its-kind initiative, tying the purchasing of renewable energy to environmental justice and equity in under-resourced communities. This partnership prioritizes projects in under-resourced communities, where we work with local leaders and minority- and women-owned businesses. The partnership provides at least $50 million for community-led grants and investments that promote educational programs, job and career training, and programs that support access to clean energy and energy efficiency. It also ensures that community benefits are realized through accountability measures that include third-party evaluators who quantify and document social and environmental outcomes of the initiative.
- In 2020, we announced the availability of the first commercial, 24/7, hourly energy-matching solution with our partner Vattenfall, which we will use to monitor energy use and zero carbon energy matching for our Swedish datacenters. Building on this, we recently announced a new 24/7 pilot in the Netherlands with energy provider Eneco and FlexiDAO, a technology supplier, which will match one of our Amsterdam datacenter's hourly energy consumption with Dutch offshore windfarm Borssele. Microsoft will be a flagship customer of FlexiDAO's 24/7 solution, which will allow us and other Eneco customers access to FlexiDAO's 24/7 renewable energy-matching tools at scale.
- We partnered with SSE Airtricity in Ireland to install and manage internet-connected solar panels, via Azure IoT to Microsoft Azure. Software tools aggregate and analyze real-time data on the energy generated, allowing optimization and reduction of the carbon footprint of electricity grids.
- The Community Solar Program in Chicago, a partnership between Microsoft and Common Energy, supports clean energy and environmental justice. Upon completion, the project will prevent more than 10 million pounds of carbon emissions per year and benefit low-income residents, who stand to see a 10 per cent reduction in electricity costs.
- We joined 20 organizations to launch Solar Hands-On Instructional Network of Excellence, a public-private partnership to prepare Virginia and its citizens to realize maximum employment, community development, and economic benefits from the solar power market.
- M-KOPA, a Microsoft Airband Initiative partner, is the largest provider of solar home systems globally, connecting over 2,000,000 customers and delivering affordable access to a diverse set of products including smartphones, solar-powered appliances, solar lighting, and digital financial services.
- New Sun Road, a Microsoft Airband Initiative partner focused on access to clean energy, developed data-driven IoT technology solutions for solar power systems. These technologies optimize the operation and management of off-grid solar microgrids, ultimately driving down cost and increasing reliability.

For more initiatives related to Goal 7, see our efforts to develop solar-powered irrigation systems in Kenya (Goal 6), extend internet and electricity to rural areas around the world (Goal 9), and achieve carbon negativity while reducing the environmental footprint of our operations, products, and services (Goal 13).

Technology & corporate responsibility

Teresa Hutson

Vice President, Technology and Corporate Responsibility
Microsoft Corporation

The pandemic forced many essential activities online, including those related to the SDGs: Quality Education (Goal 4), Decent Work and Economic Growth (Goal 8), and access to public information (Target 16.10). As a result, technology companies played an important role in the pursuit of those goals during the pandemic. As we emerge from the pandemic, do you think this change will persist and the private sector will thus continue to play a role to advance these sustainability goals?

The coronavirus pandemic laid bare the fact that, even in the best of times, many people in rural and other under-connected communities do not have access to distance learning, telemedicine, e-commerce, and other solutions necessary for modern life. Early in the pandemic, we focused our efforts to augment our existing programs and policy efforts with a view to keeping people connected and leaning into opportunities to provide connectivity in areas lacking internet access.

> **“We focused our efforts to augment our existing programs and policy efforts with a view to keeping people connected ....”**

We mobilized our partners to maintain connectivity to customers economically impacted by the crisis. As a result, people were able to move to remote work and learning, while also staying connected to critical information online during the pandemic (as an example, healthcare guidance and census reporting). We also supported the deployment of hundreds of public Wi-Fi hotspots and connectivity to critical institutions like health clinics through the efforts of our partners around the world. Some of these projects are also augmented through coordination with local officials and funding from development institutions.

Public-private partnerships like these that allow for creativity while operating with a sense of urgency. Further, a holistic focus on connectivity and its meaningful benefits leads to solutions that are sustainable and scalable for the long term. As we emerge from the pandemic, we are confident these partnerships and the outcomes they drive will continue.

In 2015, the SDGs committed to significantly increase access to ICT and strive to provide universal and affordable access to the internet in the least-developed countries by 2020. How is Microsoft contributing to this intention? Access, adoption, application?

In 2017, Microsoft launched the Airband Initiative to eliminate the broadband gap in rural areas. We brought together private-sector capital investment in new technologies and rural broadband deployments, with public-sector financial and regulatory support. Through the Microsoft Airband Initiative, we partner with internet and energy access providers, telecom equipment makers, nonprofits, and local entrepreneurs to advance digital equity—access to affordable internet, affordable devices, and digital skills—as a foundation for empowerment and digital transformation across the world.

This is not an initiative that we do on our own, and Microsoft is not itself becoming a direct connectivity provider. We do this by partnering with a network of people all working on the same goal—connecting people and bringing with that connectivity the opportunity for a better life. We have come a long way since 2017, and our commitment to work to ensure ubiquitous access to broadband is stronger than ever. To close the digital divide once and for all, we need to act to connect the world quickly. Through our work and our engagement, we hope to not just connect people, but also to provide a blueprint for other public-sector and private-sector entities to think about connectivity as a core part of their investments in health, gender equity, water, energy, or any other core area of sustainable development.

The SDGs set 2030 as the timeline to empower and promote the social, economic, and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion, or economic or other status (Target 10.2). According to the indicators, this will be measured by the proportion of people living below 50 per cent of median income in those categories. How is Microsoft contributing to this Global Goal?

Microsoft believes that we cannot empower every person on the planet to achieve more if disparities in fundamental societal systems continue to negatively impact an individual's ability to thrive. Because of this, we have been collaborating with partners and working within neighborhoods and communities to launch and scale a set of actions and programs that we believe are meaningful to catalyze equitable and inclusive change:

- Closing the disability divide. Microsoft is doubling down on our accessibility work to help close the "disability divide" with an expanded commitment to create and open doors to bigger opportunities for people with disabilities. This initiative focuses on three priorities: spurring the development of more accessible technology across our industry and the economy; using this technology to create opportunities for more people with disabilities to enter the workforce; and building a workplace that is more inclusive for people with disabilities.
- Investing in skills development and higher education. As part of our global skills initiative, we are providing grants to community-based nonprofit organizations led by and serving Black and African American communities aiming to equip more people with the digital skills needed for the jobs of the 21st century. We are also expanding computer science and data science curricula for Black and African American students in

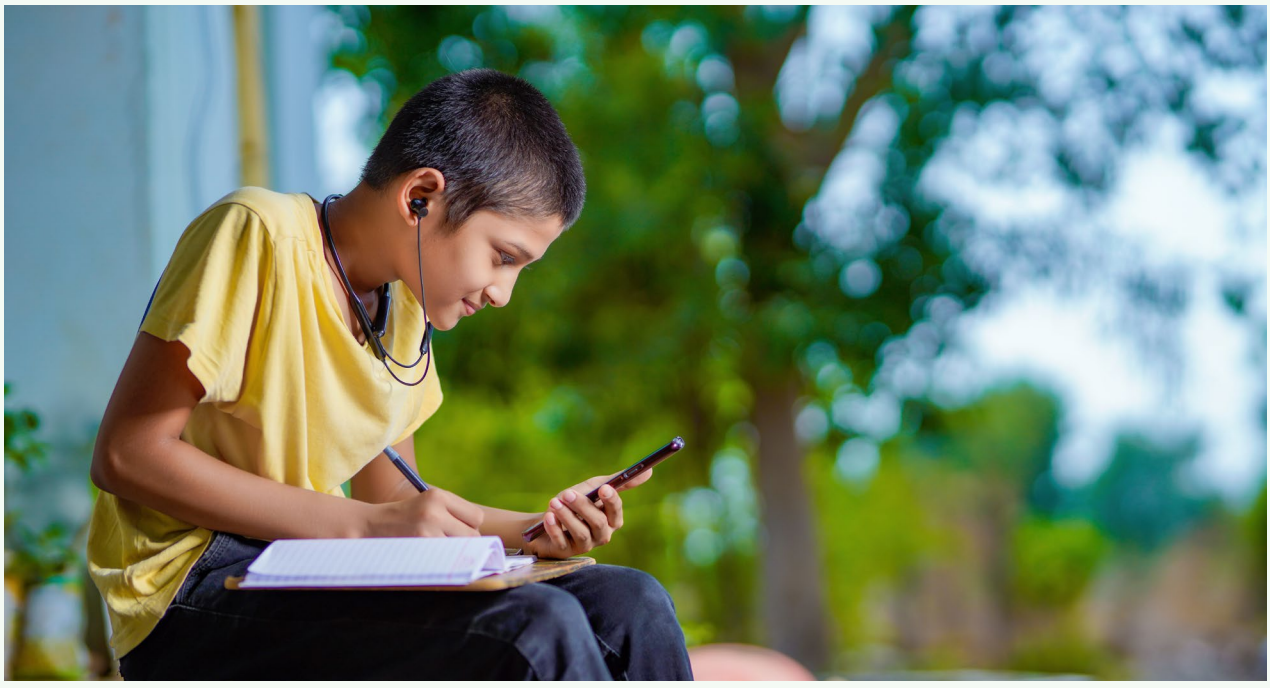
high schools and universities, through our TEALS program and continued partnerships with Historically Black Colleges and Universities (HBCUs).

- Advancing racial equity internally and externally. We are committed to addressing racial injustice and inequity by making a holistic response to a systemic challenge through three areas of effort: increasing representation and our culture of inclusion within Microsoft; engaging our financial ecosystem to extend the vision for societal change; and strengthening our communities using data, technology, and partnership to improve the lives of Black and African American individuals in the United States.
- Closing the digital divide via connectivity. We are working to close the digital divide through our Airband Initiative.

In 2020, amid heightened racial tensions around the world, Microsoft announced a Racial Equity Initiative to expand on pre-existing efforts. What is the progress made so far on those commitments?

Watching the events of 2020 unfold and listening to insights from our employees, we made a series of five-year commitments in three key areas: increasing representation and our culture of inclusion within Microsoft; engaging our financial ecosystem to extend the vision for societal change; and strengthening our communities:

- Representation and inclusion. Our goal is to double the number of leaders at the company who are Black or African American and Hispanic and Latinx. For Black and African American people managers (below director level), we are 71 per cent of the way to our 2025 commitment.
- Engaging our financial ecosystem. We have realized growth in our Black-owned and African American–owned supplier base and have received positive feedback on the supplier experience. We have more than doubled the percentage share of transaction volumes with Black-owned and African American-owned financial institutions. In addition, we have increased our deposits with Black-owned and African American-owned Minority Owned Depository Institutions, enabling increased funds into local communities.
- Strengthening our communities. Justice reform: Through a five-year, $50 million sustained effort, we are working alongside communities to advance a more equitable justice system, with a specific focus on policing, alternatives to incarceration, and prosecutorial reforms. We aim to decrease the number of persons entering the justice system unnecessarily or unfairly, reduce disparities within the system, and help create safe, thriving communities.



- Broadband: To support participation in the digital economy, we expanded our Microsoft Airband Initiative to eight US cities where Black and African American communities face some of the largest broadband gaps. We are working with internet service providers and other partners to deliver affordable broadband, and we are collaborating on programs that provide access to affordable devices and champion digital skills initiativesSkills and education: As part of our global skills initiative, we are providing grants to community-based nonprofit organizations led by and serving Black and African American communities aiming to equip more people with the digital skills needed for the jobs of the 21st century. We will also provide access to computer science for Black and African American students in high schools through our TEALS program and will continue to partner with HBCUs to expand computer science and data science curricula.
- Nonprofits: By rapidly scaling our Nonprofit Tech Acceleration (NTA) initiative, we are expanding technology support for community-based nonprofits providing critical human and social services to the Black and African American community. NTA provides nonprofit grantees with cloud technology, training, and support to ensure they can be successful with modern solutions.

> **"The private sector must continue to work with the public sector and civil society not only to defend democratic institutions, but also to build them back up."**

Based on Microsoft's work to protect and expand access to the benefits and opportunities technology can bring, how does Microsoft contribute to the Global Goal of ensuring responsive, inclusive, participatory, and representative decision-making at all levels (SDG 16.7)?

Threats to democratic institutions have resurfaced in the context of the 2020 elections in the United States. The private sector must continue to work with the public sector and civil society not only to defend democratic institutions, but also to build them back up. Cyberthreats and disinformation threats to democracies continue, while trust in key institutions is eroding at an alarming rate. The protection of and trust in these institutions are critical to ensuring resilience of our democratic societies.

We are nonpartisan in our efforts working to support democracies globally and try to lead by example. Microsoft's commitments in this area fall under three main pillars: safeguarding open and secure democratic processes, which includes securing key institutions from cyber-enabled threats for instance; promoting a healthy information ecosystem, which includes our efforts to preserve and protect journalism and journalists; and advocating for corporate social responsibility (CSR). Our technology-driven approach includes providing free services and tools, such as AccountGuard (protecting more than 4 million accounts in 30+ countries) and ElectionGuard (currently US-focused with international expansion planned) to vulnerable and targeted communities. This helps local newsrooms and media coalitions rethink what sustainable business models look like and ensures Microsoft employees and customers have access to information and resources needed to advance key civic issues.

Goal 9: Industry, Innovation and Infrastructure

The economic and social amifications of the coronavirus pandemic have significantly impacted those who do not have reliable access to high-speed internet and connectivity—the now-famous "digital divide." We have entered a time when access to broadband connectivity is a prerequisite for full participation in modern life. It is indispensable for distance learning and telemedicine, and it is essential for business and e-commerce. Target 9.c calls for a significant increase in access to ICT, with the aim of providing universal and affordable access to the internet in least-developed countries. In addition to increased connectivity, Microsoft supports a range of infrastructure projects that will strengthen economies and local communities. Target 9.b recognizes the importance of domestic technology development, research, and innovation in developing countries, and Target 9.5 calls for **upgrading technological capabilities in all sectors to increase productivity.**

Our programs

- Microsoft has a continuous commitment to innovation and energy efficiency in

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Broadband connectivity is a prerequisite for full participation in modern life.

HIGHLIGHT

In line with our vision for human-centric connectivity, Microsoft launched the Airband Initiative in 2017 to eliminate the broadband gap in rural areas. We brought together private-sector capital investment in new technologies and rural broadband deployments, with public-sector financial and regulatory support. Through the Airband Initiative, we partner with internet and energy access providers, telecom equipment makers, nonprofits, and local entrepreneurs to advance digital equity—access to affordable internet, affordable devices, and digital skills—as a platform for empowerment and digital transformation across the world. This is not an initiative that we do on our own, and Microsoft is not itself becoming a direct connectivity provider. We do this by partnering with a network of people all working on the same goal: connecting people and bringing with that connectivity the opportunity for a better life.

Airband is active in Argentina, Bolivia, Colombia, Democratic Republic of the Congo, El Salvador, Ghana, Guatemala, Honduras, India, Kenya, Malawi, Mexico, Mozambique, Nigeria, Paraguay, South Africa, and the United States. Airband partners make use of a multitechnology and multifrequency portfolio to connect the unconnected and determine technology choices based on the use case.

We have come a long way since 2017, and our commitment to work to ensure ubiquitous access to broadband is stronger than ever. To close the digital divide once and for all, we need to act to connect the world quickly. Through our work and our engagement, we hope to not just connect people but provide a blueprint for other public and private-sector entities to think about connectivity as a core part of their investments in health, gender equity, water, energy, or any other core area of sustainable development.

our datacenter operations, which provides a model for developing sustainable infrastructure.

- The Microsoft Airband Initiative advances broadband access and adoption as a platform for human-centric connectivity, empowerment, and digital transformation across the world.
- By July 2022, within the United States, Microsoft Airband partners are projected to cover at least 3 million people who do not have broadband access in rural areas. Globally, Airband partners are projected to extend internet connectivity to at least 40 million unserved people by July 2022.
- The Microsoft Airband Initiative and its partners have taken various steps to address the broadband gap during the coronavirus pandemic, including the construction of hundreds of public Wi-Fi hotspots to provide community services, such as distance learning, telemedicine, telework, filing critical forms (like unemployment applications), and other necessary online activity.

Our partnerships

- Our partnership with Cal.net extends broadband connectivity and digital inclusion programming for rural and tribal communities in the Central Valley and rural Northern California.
- AirJaldi, a Microsoft Airband partner, created a series of hybrid networks to provide affordable and reliable internet to some of India's most underserved regions.
- New Sun Road, another Microsoft Airband partner, provides electricity, internet access, and education in remote environments, helping to alleviate the effects of climate change and global energy poverty.
- Mawingu Networks provides affordable internet connectivity to help communities in rural Kenya gain access to online public services and digital economic opportunities in partnership with Airband.
- Italian coffee company Lavazza, energy and agricultural innovator ALO&Partners, and the Colombian nonprofit MAKAIA teamed up to connect rural, coffee-growing areas of Colombia through the Microsoft Airband initiative. They delivered internet access via

fixed wireless technology and have connected two schools and five farms.

- In April 2020, Microsoft launched the Open Data Campaign to help organizations of all sizes realize the benefits of data and the new technologies it powers. The campaign reflects our strong belief that everyone can benefit from opening, sharing, and collaborating around data to make better decisions, improve efficiency, and even help tackle some of the world's most pressing societal challenges. As a starting point, we set out the principles that guide how we approach sharing data and committed to developing 20 new collaborations built around shared data. We are also investing in essential assets that will make data sharing easier, including the necessary tools, frameworks, and templates. In April 2021, we reported on the progress of the Open Data Campaign one year into the journey.

DEFINING HUMAN-CENTERED CONNECTIVITY	
Access	Ensuring the availability of affordable connectvity and devices
Readiness	Building digital literacy and skills
Applications	Enabling individuals to receive the benefits of basic human services, like education, healthcare, and economic development

For more initiatives related to Goal 9, see our efforts to invest in clean energy and innovative sustainable technologies and next-generation datacenters (Goals 7 and 13), improve urban infrastructure through technology (Goal 11), safeguard and strengthen governments and public institutions (Goal 16), and promote partnerships to increase innovation (Goal 17).

Bridging the digital divide

Linda Eddleman

CEO, The Trust for the Americas

What has been the biggest surprise in your partnership/ collaboration with Microsoft?

The Trust is proud of its partnership with Microsoft, which has developed and deepened over more than 15 years. Together, we have focused on promoting inclusion of marginalized populations through digital skills and computer science training.

The coronavirus pandemic forced The Trust and its local partners to innovate when almost all partners closed their own doors for months. But with Microsoft's support, we came to the surprising realization that, in fact, The Trust could reach many more potential beneficiaries without greatly increased costs through a hybrid approach. Quite unexpectedly, The Trust was able to convert challenge into opportunity.

The Trust's alliance with Microsoft was key to enabling this approach. Microsoft encouraged The Trust to use available technological tools and, on a pro bono basis, provided software and technical training to make it possible. Thanks to the alliance with Microsoft, The Trust leveraged the Microsoft Community Training e-learning platform to provide content to beneficiaries and local partners.

Power BI applications allowed us to report results in real time and use that data to improve services throughout the Americas region. This gave The Trust the flexibility to adjust programs in progress instead of waiting for the end of a program before identifying strengths and weaknesses,

significantly improving results for participants.

A corollary impact of the new approach has been to allow The Trust to de-emphasize geography in delivery of services. Distance is a smaller barrier, in terms of beneficiaries obtaining training and The Trust's work with partners in the Western Hemisphere. These are permanent changes that make The Trust more efficient and effective.

Goal 17 calls for revitalized partnerships to achieve the SDGs. Is the private sector fulfilling its potential as a contributor to SDGs?

The Trust's work relates directly to several SDGs. The private sector provides 70 per cent of The Trust's resources, making The Trust a channel for mobilizing private-sector resources. Our programs are committed to ending poverty, improving education, providing decent work opportunities, fostering innovation, reducing inequalities, and improving governance (Goals 1, 4, 8, 9, 10, and 16). Microsoft's efforts to support these programs stand out.

Microsoft has consistently encouraged The Trust to adopt innovative approaches, and supported efforts to implement them. Going a step further, Microsoft has connected The Trust to other private-sector firms using its network to increase reach and impact. This flexibility and willingness to foster innovation, sustain longer term efforts, and create networks to achieve the SDGs transpose common business practices to the philanthropic world. It is directly responsive to SDG 17. Moreover, the networks nurture other connections, bringing the private sector into beneficial contact with the urgent needs of the wider societies in which they operate.

In the 2030 Agenda for Sustainable Development, "financial resources, technology development and transfer, and capacity building" are listed as three means of implementation for the SDGs. Where is the private sector falling short?

The digital divide poses a massive challenge to providing technology transfer and to stimulating technology development in communities where The Trust for the Americas works. The recent economic challenges related to the coronavirus pandemic have weakened the ability of private sectors in Latin America and the Caribbean to support, or even absorb, new technology implying the digital divide could widen.

In this context, investment in new technology by private firms is challenging as their financial stability is at risk. Microsoft has stepped in to support The Trust activities to serve vulnerable communities by encouraging

innovative approaches and by providing Microsoft licenses and training content. Support for capacity building for The Trust's local partners will make progress sustainable.

By training the workforce and fostering creation of startup firms, Microsoft and The Trust provide marginalized citizens with access to opportunities and overcome an obstacle to technology adoption. The networks supported by several Trust projects enable small, startup firms to leverage their influence in the local economy. This is the bridge over the digital divide.

How should companies think about what truly counts as "sustainable" when they report on the SDGs?

Sustainable has dual senses for The Trust. In an operational sense, SDG-focused projects that do not survive more than a brief period are of limited value. The Trust supports local partners for years after financial contributions have ended. More than 75 per cent of The Trust's local partners have continued their operations three to five years after the project ends, and many have continued beyond five years. Microsoft's willingness to continue providing software after project termination is essential to the survival of these operations.

In an environmental sense, many of the innovations The Trust stimulates in local communities will make a substantial contribution to the issues of sustainability. Typically, The Trust's beneficiaries live in conditions directly threatened by climate change, polluted waterways, shifting rainfall patterns, and other challenging conditions. Therefore, environmental impact is a key factor in Trust programs. The Trust increasingly fosters projects that encourage beneficiaries to develop innovative approaches to local environmental issues.

Efforts to achieve a sustainable environment can be measured by the ways in which communities can mitigate environmental challenges they face locally. Enhancing the ability of local communities to use technology for environmental innovations increases sustainability for the wider society by solving problems at the base. Microsoft support has been critical to giving vulnerable people the technology to improve their lives.

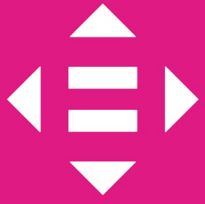
“By training the workforce and fostering creation of startup firms, Microsoft and The Trust provide marginalized citizens with access to opportunities and overcome an obstacle to technology adoption.”

Goal 10: Reduced Inequalities

Too many people around the world still face structural inequalities that create barriers to finding quality employment, equitable treatment, and a feeling of safety in their communities. The recent protests in the United States highlight the systemic racism and persistent injustice that many Black and African Americans face. These issues are one piece of a larger pattern of exclusion and discrimination that plagues every part of the world.

This goal works in direct harmony with our mission to empower every person and every organization on the planet to achieve more. Goal 10 calls for an end to exclusion and discrimination based on age, sex, disability, ethnicity, origin, religion, economic status, or other status. We recognize that words matter as much as actions and that we must do more to promote economic and social equality at all levels of society. By taking comprehensive action across underserved and underrepresented communities, we can make meaningful progress toward reducing inequality in line with Target 10.3. This includes eliminating discriminatory laws, policies, and practices and promoting appropriate legislation, policies, and actions in this regard.

10 REDUCED INEQUALITIES



We recognize that words matter as much as actions.

HIGHLIGHT

Over the past two years, we strengthened our commitments to address racial injustice and inequity for the Black and African American community in the United States. Additionally, we will take important steps to address the needs of other communities, including the Hispanic and Latinx communities, across the company. We are focused on three sustained, multiyear efforts:

- ***Increasing our representation and culture of inclusion.*** We will build on our diversity and inclusion (D&I) reporting and momentum from previous years by adding an additional $150 million of D&I investment. By 2025, we will also double the number of Black and African American managers, senior individual contributors, and senior leaders we employ in the United States. Our 2021 Disability Representation report, disclosed that 7.1 per cent of US employees have self-identified as having a disability. We are expanding the survey to 45 additional countries, reaching 90 per cent of our employees.
- ***Engaging our ecosystem***. We will use our balance sheet and engagement with suppliers and partners to extend the vision for societal change throughout our ecosystem, creating new opportunities for them and the communities they serve. For instance, Microsoft will double the number of Black-and African American-owned approved suppliers in a three-year period and will spend an incremental $500 million with those existing and new suppliers. We will also use our own banking needs to grow our portfolio investment activity with Black- and African American-owned financial institutions, and we will establish a $50 million investment fund focused on supporting Black- and African American-owned small businesses.
- ***Strengthening our communities.*** We are using data, technology, and partnership to help address racial injustice and inequities in Black and African American communities in the United States and to improve the safety and well-being of our employees and their communities. Our commitments include working to accelerate progress toward a more equitable justice system; helping students and adults develop the skills needed to succeed in the digital economy; expanding access to affordable broadband, devices, and digital skills; and empowering the digital transformation of nonprofits that support and are led by people of color. We are committed to working toward long-term systemic change and sharing progress on our commitments to strengthen our communities.

Our programs

- Through our grant program, AI for Accessibility, Microsoft is working to harness the power of AI and innovation to amplify human capability for people with disabilities—all over the world. Projects include Seeing AI, a free app that narrates the world around you, designed for the blind and low-vision community, and Microsoft Translator, which helps improve the accuracy of real-time captions for people with hearing loss or deafness.
- Through the Microsoft Accessibility Evolution Model, we share our lessons and best practices with other organizations working to achieve accessibility and disability inclusion.
- The Disability Answer Desk is a dedicated support team within Microsoft that provides help to customers with disabilities and to tech professionals through Office, Xbox, and Windows accessibility and assistive technology.
- Microsoft provides free tools, like the Accessibility Checker for content creators and Accessibility Insights for developers, to help others serve communities with disabilities.
- The Microsoft Justice Reform Initiative manages more than 40 strategic partnerships designed to advance and accelerate racial equity in the justice system with a focus on preventing justice system involvement and eliminating racial disparities in policing and prosecution practices.

Our partnerships

- Microsoft continues to be a leading funder and board member of Code.org, which

OUR INTERNAL COMMITMENTS

- Accessibility is a core company value—one that we embed in every one of our product lines. We provide resources on hearing, vision, mobility, speech, mental health, and neurodiversity.
- We are furthering steps in our ongoing cultural transformation, ranging from diverse and inclusive hiring to developing and retaining talent, to holding ourselves accountable, including through our publicly shared Microsoft Diversity and Inclusion Report and data disclosure, which we update annually.
- We are innovating new approaches to recruiting people with disabilities through our Inclusive Hiring program. The Microsoft Neurodiversity Hiring Program is one example. This free job marketplace connects neurodivergent individuals with employers seeking to hire and support neurodiverse talent.

works across the country to prioritize diversity in computer science classrooms. In 2019, 45 per cent of students in Code.org's K–12 classes were female and 48 per cent were minorities.

- Microsoft is a founding member of the Partnership for Global LGBTI Equality, a coalition of organizations committed to leveraging their individual and collective advocacy to accelerate lesbian, gay, bisexual, transgender, and intersex (LGBTI) equality and inclusion globally. The Partnership is supported by the UN Office of the High Commissioner for Human Rights (OHCHR) and is operated in collaboration with the WEF.
- In Canada, we are partnering with the Coastal First Nations to strengthen connectivity and digital readiness along British Columbia's Coastal Communities. Improved access to quality, high-speed internet will remove barriers for many rural and remote First Nations communities allowing for further Indigenous economic development.
- Microsoft TechSoup Courses provide expert-led tech training for nonprofits and libraries. Some 50,000 nonprofit staff members to date have benefited from TechSoup training.
- We worked to narrow the digital skills gap for youth with disabilities by helping Junior Achievement Korea train educators to teach digital skills to 15,000 students in South Korea for the 2019–2020 school year.
- As part of our commitment to drive racial equity, the Microsoft Airband Initiative builds partnerships with internet service providers, device refurbishers, community organizations, government offices, and others to expand digital equity—access to affordable internet, affordable devices, and digital skills—in eight cities across the United States that have some of the largest gaps in access and adoption for racial and ethnic minorities, particularly for the African American community.
- Airband partnered with Starry, an internet service provider to expand affordable broadband access to over 450,000 people living in and near public and affordable housing in Los Angeles and New York by the end of 2022.
- In Milwaukee, Microsoft Airband and PCs for People have collaborated with the city of Milwaukee and the Housing Authority for the city of Milwaukee to expand affordable broadband access to over 8,700 people (and counting) in predominantly Black and African American communities facing high rates of income insecurity.

Our support

- In 2017, Microsoft announced that we would stand up for Microsoft Dreamers and other Deferred Action for Childhood Arrivals (DACA) program recipients by representing them in court and litigating on their behalf. This case brought us to the Supreme Court of the United States, which in June 2020 ruled in favor of the Dreamers and against the rescission of the DACA program.

- Microsoft supports the OHCHR Standards of Conduct for Business on Tackling Discrimination against LGBTI people.
- We are working to expand the benefits of technology for people with disabilities through public policy advocacy and community engagement.

- Microsoft was recently awarded a Level 1 Broad-Based Black Economic Empowerment (B-BBEE) rating for its operations in South Africa, reflecting years of focused investment and commitment to supporting Black workers and Black-owned businesses.

- Microsoft joined the Second Chance Business Coalition, which is a cross-sector coalition of private companies that promotes the benefits of hiring formerly incarcerated individuals and will offer best-practices sharing opportunities for employers.

For more initiatives related to Goal 10, see our efforts to leverage our balance sheet and technology for humanitarian purposes, invest in local workforces in developing regions, and obtain a Level 1 B-BBEE rating in South Africa (Goal 1), promote quality education and digital skills programs for young people worldwide with a focus on underserved populations (Goal 4), empower young women and girls and prepare them for careers in STEM fields, while increasing transparency around our internal gender diversity efforts (Goal 5), extend internet connectivity to underserved parts of the world (Goal 9), and safeguard and strengthen governments and public institutions (Goal 16).

OUR IMPACT SO FAR

Protect and promote human rights

236

We offered our Worker's Voice Hotline program to 235 factories in our supply chain—a 14.9% increase over the previous year—ensuring that 371,597 workers had an anonymous reporting channel for worker grievances.

94

Continued to advocate for immigration reform and the protection and strengthening of the US Deferred Action for Childhood Arrivals (DACA) program, including offering pro bono legal services to 94 DACA clients.

$10.75M

Awarded $10.75 million in grants—to be distributed over five years—to three organizations as part of our AI for Cultural Heritage program, supporting the preservation of two languages and a project to preserve the culture of Ancient Olympia.

Support humanitarian action and emergency response

$14M

Contributed $14 million to six humanitarian emergencies in five countries through donations, technology, services, and employee giving.

94

Partnered on 12 AI for Humanitarian Action projects, from helping refugee families reunite to helping communities prepare for disasters.

Safeguard democracy

Provided AccountGuard threat notification service in 32 countries, protecting more than 2.5 million accounts of election officials, journalists, human rights organizations, and other essential organizations.

Partnered on a pilot with Hart InterCivic, a large US-based election systems vendor, to enable more secure and verifiable elections with our ElectionGuard software.

Launched five local news pilots spanning 23 newsrooms in the US and Mexico to help protect and preserve local journalism across digital and traditional media.

Source: 2021 Impact Summary Report, Microsoft Corporation, 2022.

Digitally empowering communities

Antony Cook

Corporate Vice President and Deputy General Counsel, Customer & Partner Solutions Microsoft Corporation

The United Nations 2030 Agenda for Sustainable Development (2030 Agenda) adopted a far-reaching and people-centered set of universal goals and targets. To achieve the universal dimension of these goals in the next eight years, the UN mentioned technology, innovation and capacity building, and data as some of the key means of implementation for the 2030 Agenda. How is Microsoft working to bring benefits of technology, innovation and capacity building, and data to its customers, partners, governments, and communities at a multiregional level?

My role at Microsoft is leading an international team of more than 375 legal, policy, and corporate affairs professionals who work at the intersection of technology, law, and public policy. Every day, in more than 51 countries, my team is helping our customers, communities, and governments realize a more innovative and inclusive economic future through policy insights, partnership investments, and helping organizations adapt to a changing technology landscape.

For me this work is very personal. Before moving recently to the United States to manage our international team, I have had the fortune of spending 19 years

> **“To truly have human-centric connectivity requires placing the community at the center ....”**

living and working in the Asia Pacific and Middle East and Africa regions. In that time, I have seen the impact of our work firsthand, marveling at the advances that our technology has enabled in countries large and small, developed and developing. I have been inspired by what local innovators have done to expand the reach and exploit the potential of these technologies.

But as compelling as these advances might be, this same experience has also taught me that there are some things we cannot take for granted, the most fundamental of which is access to affordable and reliable connectivity. Perhaps there is no better example of the importance of connectivity than in Africa, where internet access remains out of reach for more than half of the population. I spent many years travelling across the continent and seeing how essential affordable and reliable connectivity was to help realize an innovative and inclusive economic future. It's therefore unsurprising that Africa has been so influential in guiding our connectivity strategy approach worldwide; this includes the Microsoft Airband Initiative, a commitment to connect 40 million people outside the United States by July 2022.

> **"We cannot take for granted … access to affordable and reliable connectivity."**

What this experience also tells us is that connectivity is just the start, and that access to broadband can be a catalyst for so many areas of need: financial inclusion, distance education, telemedicine, and precision agricultural, to name a few. It's why we partner with social entrepreneurs and nonprofits to expand access not only to broadband, but also to training for the skills that are so important in the digital economy. In Africa alone, Microsoft has 16 active projects covering 4 million people, with the aim to reach 6.5 million by July 2022.

Below are specific initiatives that Microsoft has spearheaded on a regional basis

Asia Pacific (APAC)

Microsoft announced its "Bersama Malaysia" (Together with Malaysia) initiative, which marks a significant commitment to empowering Malaysia's inclusive digital economy and advancing the nation's digital transformation across the private and public sectors. Microsoft announces plans to establish its first datacenter region in Malaysia as part of "Bersama Malaysia" initiative to support inclusive economic growth.

- Microsoft announced its Berdayakan Ekonomi Digital Indonesia initiative, which marks a significant commitment to advancing growth and digital transformation for Indonesia and its vibrant developer and startup ecosystem, enterprises, and public sector.

Central & Eastern Europe (CEE)

- **Baltics:** To support the learning of modern knowledge, Microsoft is implementing the Baltic Digital Skills Development Program. Microsoft developed and launched the program in October 2020 in cooperation with the Innovation Centre of the University of Latvia LUMIC, the ISM University of Management and Economics in Vilnius, and the Estonian Business School in Tallinn. Thus far, the program has enabled 70 participants to receive internships in 15 different companies across the region. Moreover, we will invest an additional $200,000 from the Emerging Markets Skilling program, where, in partnership with a Latvian NGO, we aim to skill and provide internships for up to 3,000 people.
- **Greece:** At the beginning of 2021, as part of the GRforGrowth Program—which primarily refers to Microsoft's Datacenter Region investment in Greece—we launched an aspirational project to train more than 100,000 people before the end of 2025. More specifically, we initiated a skilling project with the Greek government for public-sector employees, through which we already have delivered 500 training courses and accredited 438 certificates on Azure and Office fundamentals. Furthermore, together with Regeneration, Greece's largest and most multistakeholder paid placement and training program, we are working on implementing a project to reskill 1,000 beneficiaries within 2021. Our goal is to achieve at least a 50 per cent employability rate.
- **Slovakia:** Healthcare is one of the key industries with full potential to benefit from

modern technology and innovation, and Microsoft cooperates with many hospitals on various AI projects, such as Transforming Healthcare: Enhance Oncological Patient Journey SK. Slovakia lags behind developed Europe in almost all monitored parameters of oncology diagnosis, from early diagnosis to the availability of innovative treatment. The total time from the first presentation of the patient to the general practitioner to the start of treatment averages more than 160 days. This results in high overall mortality. The Ministry of Healthcare and their ICT service provider organization, NCZI, developed the nationwide eHealth system. Microsoft is recognized here as the key cloud provider and partner for digital transformation projects. The Ministry of Health is discussing different activities in the field of healthcare with us, and we are specifically helping them to shape this project with a possible extension to AI.

- **Poland:** There are as many as 105,000 trained cloud professionals one year after the announcement of Microsoft's investment in the development of the Polish Digital Valley. That is 12 new specialists every hour and 9,000 cloud experts per month. Microsoft's 2021 commitment to train 150,000 people in five years is being implemented three times faster than estimated. Digital competencies are on the agenda of the most important industry meetings—for 72 per cent of participants in the survey "BARRIERS and TRENDS," digital competency is the greatest challenge of digital transformation.

Latin America (LATAM)

- Microsoft is committed to covering 8 million unconnected people in LATAM with affordable internet access as part of a worldwide commitment to connect 40 million (outside the United States) by July 2022. It is a bold ambition that not only strives to find sustainable and economical ways to access this essential service, but also aims to provide added value to end users through financial inclusion, access to remote education, telemedicine, and deployment of precision agricultural solutions, among others. To truly have human-centric connectivity requires placing the community at the center of the solution and co-creating with the community a tailor-made solution that will be sustainable. At the same time, Microsoft aims to provide progressive upskilling training in the next four years to more than 4 million people in LATAM currently excluded from the digital economy. This initiative is in partnership with nonprofit partners at the regional level, like The Trust for the Americas and EIDOS, with local execution in partnership with governments and local organizations. The progressive skilling goes from soft skills to technical skills, including productivity and role-based skilling linked to real employment opportunities. Also, we support sustainability initiatives, like PrevisIA in Brazil, to detect illegal deforestation and fires using satellite images and AI.

Middle East & Africa (MEA)

- In **Africa**, internet access remains out of reach for more than half of the population, with only 46.2 per cent connected to the internet in 2020.[5] Through the Microsoft Airband Initiative, we partner with internet and energy access providers to catalyze the creation of digital equity platforms. This includes access to broadband, skilling opportunities, and, in some cases, access to devices. Microsoft currently has 16 active projects in Africa covering 4 million people, and we aim to reach 6.5 million by July 2022. Key partners include Bluetown in Ghana, where Microsoft supported the creation of a digital platform to address national educational needs for youth in underserved communities, and Mawingu Networks in Kenya, which provides access to rural communities[6] and focuses on empowering female owners of small shops in rural areas.[7]

- We scale our impact in MEA through public-private-nonprofit digital skilling partnerships in Egypt, Turkey, Nigeria, Kenya, and South Africa.

For more Antony Cook, see page 90.

[5] Africa Internet Users, 2021 Population and Facebook Statistics (internetworldstats.com).
[6] Microsoft on the Issues, "Microsoft steps up commitment to increased connectivity in sub-Saharan Africa," October 2019. https://news.microsoft.com/en-xm/2019/10/08/microsoft-steps-up-commitment-to-increased-connectivity-in-sub-saharan-africa/
[7] Microsoft on the Issues, "Empowering Kenya and the World with high-speed, low-cost Internet," July 2015. https://news.microsoft.com/features/empowering-kenya-and-the-world-with-high-speed-low-cost-internet

Goal 11: Sustainable Cities and Communities

Today, more than half of the world's population lives in cities. Millions more are expected to move to cities in the near future. Metropolitan areas contribute about 60 per cent of global gross domestic product (GDP), yet they also account for about 70 per cent of global carbon emissions. Creating the systems and infrastructure for sustainable cities in an era of rapid growth will be key to managing some of the world's greatest challenges in the coming decades. Microsoft believes that technology can support the aims of SDG 11, such as improving inclusive urban planning (Target 11.3), safeguarding the world's cultural and natural heritage (Target 11.4), and reducing the environmental impacts of cities (Target 11.6).

Our programs

- Innovative Microsoft solutions based on technologies, including IoT and AI, are delivering a new generation of governmental and public-sector services for smart cities.
- Microsoft AI for Cultural Heritage leverages the power of AI to empower people and organizations dedicated to the preservation and enrichment of

11 SUSTAINABLE CITIES AND COMMUNITIES

More than half of the world's population lives in cities.

HIGHLIGHT

Microsoft has opened Smart Cities Technology Hubs around the United States to develop uses for new technologies, aid startups, and train the workforce of the future. In 2019, we opened our second and third hubs, in Syracuse, New York, and Charlotte, North Carolina. In August 2020, we expanded our partnership with the city of Houston, Texas, which focuses on innovating in big data, AI, and the digital economy. In Houston, Microsoft also introduced "Accelerate," a program designed to address economic recovery through skilling underserved communities and reskilling the many Americans impacted by the coronavirus pandemic.

cultural heritage. Our projects include a collaboration with the Nigerian government to help protect Nigeria's rich cultural heritage, as Microsoft will look to deploy AI tools to preserve and revive Nigeria's three major indigenous languages: Hausa, Yoruba, and Igbo.

- Microsoft recently collaborated with the Hellenic Ministry of Culture and Sports to digitally preserve the Ancient City of Olympia using AI and other technologies. An immersive 3D presentation brings 27 monuments and artifacts to life and offers people around the world the opportunity to experience them as they were nearly 2,000 years ago. The project has been approved by the Central Archaeological Council.
- Microsoft's Affordable Housing Initiative helps address the Seattle-region's growing housing and homelessness crisis through a commitment of $750 million in housing grants and investments. Job growth is far outpacing housing supply, leading to scarcity and affordability challenges, particularly for low- and middle-income households. According to analysis by Microsoft's data science team, from 2011 to 2020, jobs grew 30 per cent while housing grew 19 per cent. To date, Microsoft has allocated $583 million toward the preservation and creation of approximately 9,200 housing units in the Puget Sound region. We are working closely with local governments, housing providers, and investors to find new ways to make affordable housing development possible through innovation in capital sourcing, advancements in housing policy and creative community.

Our partnerships

- The Smart Cities for All Toolkit, which we developed in partnership with G3ict, helps city and agency leaders gauge the level of progress and commitment to ICT accessibility and digital inclusion as part of being a smarter city.
- Breeze Technologies aims to deliver hyperlocal comprehensive and accurate air-quality data from public and private data sources and low-cost sensors that feed AI and machine learning services on Microsoft Azure.
- Vector Center works with governments and companies around the world to better understand the impact of water availability and accessibility. One of the challenges it addresses is water risk and scarcity in urban communities where data is still often analog, printed, and stored in stacks. It is digitizing data and has developed a platform called the Perception Reality Engine on Microsoft Azure to collect, correlate, and analyze data and produce an overall picture of what is happening in real time, to better see how to forestall the threat of when water may not be available.
- The Spanish city of Gandia partnered with Wellness Telecom to deploy IoT-connected light posts through Microsoft Azure. The resulting system allows for improved control, lower energy costs, better citywide lighting, and a 2,723-ton reduction in annual carbon emissions.
- The Siemens MindSphere City Graph uses Azure Digital Twins to build digital models of entire environments within an urban space and showcases them in a live execution environment with integration of real-time data.

- Bentley Systems and Microsoft have expanded their strategic alliance to accelerate infrastructure Digital Twin innovations. The companies are focused on advancing infrastructure for smart city urban planning and smart construction. The alliance combines Microsoft's Azure IoT Digital Twins and Azure Maps with the Bentley Systems iTwins platform, enabling engineers, architects, constructors, and city planners to work within a comprehensive city-scale digital twin, empowering better decision-making, optimizing operational efficiency, reducing costs, and improving collaboration.
- Aspern Smart City Research has been honored at the IDC 2020 Smart Cities and Communities Europe and Central Asia Awards in the Resilient Infrastructure category, made possible by MindSphere City Graph, based on Azure Digital Twins. The award is the first of its kind recognizing technology-enabled, groundbreaking, and innovative projects that deliver citizen-centric outcomes.
- The town of Cary, North Carolina, is building an innovative flood prediction system leveraging Microsoft Azure IoT and SAS Analytics for IoT.
- Through a partnership with the Gift of the Givers NGO and the Western Cape Government Department of Health, we are installing smart water meters in hospitals across the Western Cape province of South Africa.
- Malaysia's Mass Rapid Transit Corporation is leveraging Microsoft Azure to design and build the newest extension to its Greater Kuala Lumpur regional rail line, resulting in fewer errors and design conflicts and improving collaboration efficiency by 35 per cent.
- The city of Westminster, serving the heart of London, was able to quickly pivot during the coronavirus pandemic by deploying Microsoft cloud solutions across its operations to enable employees to work from home and citizens to access services remotely. Additionally, they provided all staff with Microsoft Surface devices to stay connected. They have since seen a significant increase in collaboration across the city's departments.
- Ghent, a port city in northwest Belgium, has created CityBot, an efficient communication and information system. This Azure AI-based chatbot keeps citizens informed about public information, with transparency and multilanguage support. The city is now able to deliver secure services and innovation to enable communication and information sharing across multiple areas or departments. Ghent has been able to greatly reduce the time it takes for its citizens to learn of and comply with new policies and relevant

information, which is critical during the coronavirus pandemic.

- The city of Zurich commissioned EWZ, its sustainable energy and communications service department, to create a network of IoT applications for the city's diverse digital needs related to the environment, mobility, transportation, and other urban planning challenges. Their Smart City Zurich strategy uses IoT network sensors and Microsoft Azure to gather data related to the city's growth and infrastructure. The city can now quickly analyze data and generate insights, all while keeping data secure and ensuring privacy regulatory compliance.
- Microsoft is working toward making smart cities more inclusive and transparent. As part of our membership in the WEF Smart Cities Alliance, we contributed to recommendations that cities can use to create accessibility and privacy policies that will benefit their citizens.
- Australia's first Indigital Schools Minecraft Education Challenge brought traditional stories to life through mixed reality and Minecraft Education. Students across the nation participated in the Challenge, exploring the question, "How might we build sustainable schools, cities, towns or communities in 2030 using Indigenous science, technology, engineering, arts, and math (STEAM)?" Developed by Indigital and supported by Microsoft, the Telstra Foundation, and the National Centre of Indigenous Excellence and National Library, the Challenge builds respect for and recognition of the unique place Australia's first peoples have in their country.
- The Healthy Country AI partnership in Kakadu National Park is a pioneering program that mixes responsible AI and science with Indigenous knowledge to solve complex environmental management problems and care for animal species and habitats. The partnership is part of the Australian government's National Environmental Science Program through its Northern Australia Environmental Resources Hub.

For more initiatives related to Goal 11, see our efforts to invest in clean energy and innovative sustainable technologies (Goals 7 and 13), achieve carbon negativity while reducing the environmental footprint of our operations, products, and services (Goal 13), and safeguard and strengthen governments and public institutions (Goal 16).

Antony Cook on Microsoft contributions to regional research and investment.

The SDGs call for stakeholders to upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, by 2030, including by encouraging innovation and substantially increasing the number of research and development workers and through public and private research and development spending (SDG 10.9). How is Microsoft contributing to encouraging innovation and investing in research and development across various regions? What is the resulting impact on local communities?

Microsoft Research (MSR) is one of the world's premier private-sector innovation organizations, conducting both basic and applied research in areas central to Microsoft's long-term strategy and computing vision. MSR is a network of nine labs in the world committed to pushing the frontiers of research in areas such as AI, human-computer interaction, security and privacy, and computer vision.

I have had the great opportunity to see the work of MSR from my time working in India and China at two of the major labs for MSR. The partnerships these labs have fostered with universities and research institutions over decades have encouraged innovative research, advanced education, and promoted academic collaboration. One example of these partnerships is the work of MSR India, which is conducting research in technologies that can empower underserved communities around the world through the Technology for Emerging Markets (TEM) group. This work has led to high-impact projects such as 99DOTS and Digital Green that have "graduated" into independent organizations that are achieving global scale and impact.

On the other side of the world, the Microsoft Research Advanced Technology Lab (ATL) in Rio de Janeiro has been helping business accelerators in Brazil support technology-based startups with high potential for international expansion. These initiatives generate over 100 direct jobs, which include researchers, developers, and entrepreneurs. But these employment opportunities are only the start, as the impact multiplies throughout the value chain, ultimately impacting thousands of professionals.

Another example of where we are encouraging innovation and investing in research and development is our new development centers in Nairobi, Kenya, and Lagos, Nigeria. The centers opened in 2019 and are staffed by engineers from across the continent, creating solutions for regional and global impact, leveraging technologies like AI, machine learning, and mixed-reality innovation. A key initiative within the centers is the Microsoft Africa Research Institute (MARI), which brings together researchers, engineers, designers, and the community to drive productivity in three specific areas: work, health, and society.

Specific initiatives that Microsoft is taking on a regional basis:

APAC

- MSR Asia, our fundamental regional research arm and largest outside the United States, conducts both basic and applied research in areas central to our long-term strategy and future computing vision: natural user interface, intelligent multimedia, AI, cloud and edge computing, big data and knowledge mining, and computer science fundamentals. MSR Asia cooperates with many universities and research institutions in the Asia Pacific region to foster innovative research and advanced education and to promote academic collaboration.
- Since its inception in 2005, MSR India has conducted research in technologies that can empower underserved communities around the world through the TEM group. This work has led to high-impact projects such as 99DOTS and Digital Green that have "graduated" into independent organizations that are achieving global scale and impact, as well as projects such as FarmBeats, that have transitioned into new businesses for Microsoft.

> "I have seen the impact of our work first-hand, marveling at the advances that our technology has created in countries large and small ...."

CEE

- **Latvia:** Microsoft is collaborating with the Latvian government on a data project that will help detect gastric cancer in its early stages, thus enabling early treatment. Led by the University of Latvia—one of Europe's leading clinical centers—the project aspires to create an open and transparent data sharing platform under the GAIA-X framework that will run across Europe. It will draw information from diverse data sets using advanced cloud services, making prevention strategies less costly and more effective.
- **Greece:** Following Brad Smith's visit in Greece in February 2020, Microsoft entered a cultural sponsorship agreement with the Hellenic Ministry of Culture and Sports to provide a digital recreation of the Ancient City of Olympia through the development of an augmented reality (AR) mobile app, a 3D interactive website, and a mixed-reality experience via HoloLens. Development of all three digital experiences is steadily progressing. In December 2021, we partnered with the Hellenic Ministry of Culture to finalize accuracy of the monuments along with various technical details regarding web hosting.
- **Czech Republic:** AI for Earth, one of our flagship projects encouraging innovation and even contributing to sustainability, involves beer producer Asahi in the Czech Republic. We aim to scale this project across CEE in the future. The Asahi project drives efforts in sustainable hop farming. As droughts in the Saaz region worsen due to climate change, they threaten the economic and cultural value of hops. Microsoft software solutions will empower farmers with a deeper understanding of the droughts and how they can adapt to and mitigate them. As part of the program, farmers will be educated on how to conserve water and use it for hops in the most sustainable way possible. IoT sensors will be applied on the farms together with Agritecture, which will allow Asahi to monitor changes in soil and use water in a more sustainable manner. The Asahi project is a game changer for sustainable hops production in the Saaz region.
- **Poland:** Energy transformation in Poland is a huge challenge on multiple levels. It impacts the economy and harms society through very poor air quality. Microsoft Poland is engaging in growing an ecosystem that could support twin transformation: going digital to go green. Projects range from typical business digital transformation of energy-sector companies, CSR activities to support female leadership in the energy sector, supporting local communities with AI smog forecasting and prevention tools, and creating a digital alliance of energy-sector companies under the Microsoft Energy Core initiative and comprehensive upskilling and reskilling projects for the industry.
- **Romania:** Microsoft Romania partnered with Regina Maria, the largest private healthcare provider in Romania, to launch the European Nursing Academy—a one-of-a-kind skilling program to deliver opportunities to 700 graduates and train over 4,500 future nurses within the next four years. As the leading technology provider on the project, Microsoft has embedded technological solutions (AR, HoloLens 2, AI) into the medical curriculum of the academy to digitally upgrade the training of future nurses.

LATAM

- In 2012, a Microsoft Research ATL in Rio de Janeiro opened, together with a development center for Bing and numerous initiatives promoting innovation in Brazil. ATL Brazil combines local capacity for technological innovation and advanced

engineering with expertise in applied research from Microsoft and its partners to expand production of national origin. Related initiatives include the creation of a business accelerator focused on supporting Brazilian technology-based startups with high potential for international expansion. These initiatives generate over 100 direct jobs, which include researchers, developers, and entrepreneurs. As the main objective is to promote innovation, these opportunities multiply throughout the value chain, impacting thousands of professionals.

Middle East and Africa (MEA)

- In the three decades since Microsoft entered the African continent, the company has made investments in the technology ecosystem, including in cloud infrastructure, development centers, skilling, and capacity-building initiatives, and has established partnerships with governments to implement policies that induce innovation and progress. In 2019, Microsoft opened its first development centers in Africa, with two initial sites in Nairobi, Kenya, and Lagos, Nigeria.[9] The centers are staffed by engineers from across the continent who are creating solutions for regional and global impact by leveraging technologies like AI, machine learning, and mixed-reality innovation. A key initiative within the centers is the MARI, which brings together researchers, engineers, designers, and the community to drive productivity in three areas: work, health, and society.

For more Antony Cook, see page 104.

“The company has made investments in the technology ecosystem, including in cloud infrastructure, development centers, skilling, and capacity-building initiatives, and has established partnerships with governments to implement policies which induce innovation and progress.”

[8] Microsoft on the Issues, “Empowering Kenya and the World with high-speed, low-cost Internet,” July 2015. https://news.microsoft.com/features/empowering-kenya-and-the-world-with-high-speed-low-cost-internet

[9] Microsoft on the Issues, “Furthering our investment in Africa: Microsoft opens first Africa Development Centre in Kenya and Nigeria,” May 2019. https://news.microsoft.com/en-xm/features/furthering-our-investment-in-africa-microsoft-opens-first-africa-development-centre-in-kenya-and-nigeria/

Goal 12: Responsible Consumption and Production

Humanity's current consumption and production patterns are unsustainable in the long run.

It is estimated that if the global population reaches 9.7 billion people by 2050,[9] it will require nearly three planets' worth of natural resources to sustain our current consumption patterns. In order to achieve success on SDG 12, we will not only have to use less and waste less, but we will also have to fundamentally rethink production systems to create a truly circular economy. Target 12.a calls for the strengthening of scientific and technological capacities to move toward more sustainable patterns of consumption and production. Relatedly, Target 12.5 seeks to substantially reduce waste generation through prevention, reduction, recycling, and reuse.

Our programs

- Through our $1 billion Climate Innovation Fund, we have directly invested in several companies to help them accelerate and scale their solutions, including:
  - Rheaply, to fund the development of carbon-related feature updates to help

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Our goals include a minimum of 50% recycled content in all packaging.

HIGHLIGHT

Microsoft is committed to achieving zero waste in its operations, packaging, and products by 2030. Our focus on waste reduction initiatives began in 2008, when our facilities implemented single-stream recycling and composting across our Puget Sound offices and dining services. Eleven campuses now have customized roadmaps to achieve zero waste by 2030. The Microsoft's Puget Sound campus, our largest, accounts for nearly half of our global facilities floor area and has been zero waste certified since 2016. We also achieved zero waste certification at our datacenters in Dublin, Ireland; Boydton, Virginia; San Antonio, Texas; and Columbia, Washington.

We are committed to diverting at least 90 per cent of our solid waste away from landfills and incinerators. In fiscal year 21, we diverted more than 15,200 metric tons of the solid waste otherwise headed to landfills and incinerators. As we continue to grow, we will achieve 90 per cent diversion of operational waste at datacenters and campuses and 75 per cent diversion for all construction and deconstruction projects by 2030. Some of our largest campus projects to date have shown exemplary performance in this area. Our campus modernization project in Puget Sound, for example, is currently demonstrating a 95 per cent diversion rate as we continue our construction process.

Given the number of components coming through our datacenters, in 2020 we committed to reuse 90 per cent of cloud hardware by 2025 and launched our new Microsoft Cloud Responsible Packaging Goals for 2025. The packaging goals guide our work on IT asset transportation packaging at our datacenters.

For consumer devices, our packaging goals include elimination of single-use plastics in all primary packaging by 2025 and 100 per cent recyclable packaging in Organization for Economic Cooperation Development (OECD) countries by 2030. Our product packaging is, on average, 93 per cent recyclable and it was also 96 per cent plastic-free. We also set a target to reach 100 per cent recyclable Surface devices and Xbox products in OECD countries by 2030. We achieved a 97 per cent recyclable Xbox Series X and S, and a 93 per cent recyclable metal Surface Laptop 4, assessed using UL methodology ECVP 2789. We continue to integrate our new innovations, technologies, and learnings from our most recyclable products to the rest of our products.

companies measure carbon emissions savings from reuse and fuel the circular economy.

  - Closed Loop Partners, to help accelerate the infrastructure, innovation, and business models for supply chain digitization, e-waste collection, food waste reduction, and recycling industry products to build a more circular economy at scale.

- We are building first-of-their-kind Microsoft Circular Centers to reuse and repurpose servers and hardware in our datacenters. We have planned five Circular Centers, with live centers running in Amsterdam, the Netherlands; Boydton, Virginia; and Dublin, Ireland.

- We plan to expand the program at Microsoft datacenters in Quincy, Washington; Chicago, Illinois; Des Moines, Iowa; San Antonio, Texas; Cheyenne, Wyoming; Sydney, Australia; Singapore; Sweden, and more.

- We are investing to digitize waste data across the company and identified opportunities to improve data collection. We used Microsoft technology to track and report on materials and waste, developing PowerApps for facility managers, APIs to directly connect with recycling vendors, Dynamics 365 to aggregate bulk data, and the Power BI platform to visualize data across portfolios. We now have more consistent, high-quality data about the amount of waste, the type and quality, where it is generated, and where it goes, informing strategy to achieve our targets.

- Microsoft performs life-cycle assessments to calculate the environmental impact of our

hardware products, identifying the key stages when the largest environmental impacts take place so the impacts can be minimized.

- Through our eco profiles, we publish data on our GHG emissions, primary energy consumption, and material composition for our products.
- To identify and prioritize areas of sourcing risk, we have expanded our mapping of key raw materials to better understand the origins of those raw materials and the conditions under which they are extracted and processed.
- All eligible Microsoft devices are registered to the Electronic Product Environmental Assessment Tool, an environmental-performance rating program.
- We have certified the activities associated with the design of our devices, manufacturing, and supply chain business to ISO 14001:2015, and we require all contracted suppliers to establish and implement effective environmental management systems.
- As reflected in our 2030 packaging and product sustainability targets, our efforts are focused on improving resource efficiency and circularity by transitioning to using materials with more recycled content and materials that are recyclable, renewable and sustainably sourced, and reducing waste in production.
- We are developing opportunities to reuse manufacturing scrap in aluminum production, allowing us to use lower carbon, 100 per cent post-industrial recycled closed loop aluminum for future Surface computer housings.

Our partnerships

- We advanced our relationship with the Ellen MacArthur Foundation from Member to Partner, elevating opportunities for Microsoft employees to learn and engage on topics of the circular economy through community platforms, workshops, events, courses, and collaborative projects.
- We are collaborating with the Ellen MacArthur Foundation Network (including Aquafil, BASF, Berry Global, CHEP/Brambles, Cisco, the Estée Lauder Companies, Flex, Mainetti, Mondi, and SCG) to create a circular packaging solution to replace the existing linear path plastic-based stretch wrap that is used to stabilize and protect products in transit. This cross-sectoral group is researching and piloting three different pathways to eliminate single-use stretch wrap used in a linear path: replacing stretch plastic with a compostable film, implementing reusable materials for securing pallets, and improving the recovery of single use, linear plastic-based film for higher value and closed-loop recycling solutions.
- Microsoft became a founding member of the Capital Equipment Coalition North America alongside DLL, GE Digital, Philips, and SAP and in partnership with the US Chamber of Commerce Foundation and the Platform for Accelerating the Circular Economy. We joined the Coalition to support the capital equipment industry's acceleration to a closed-loop model that preserves and recovers the value of materials across a product's lifecycle, leading to reduced waste and carbon emissions. As a group, we're working toward circularity standards and methodology that measures the environmental impacts of "X as a service" models compared to traditional ownership models.
- We are designing new solutions with the Circular Electronics Partnership, an alliance of international organizations committed to driving a coordinated transition toward a sustainable and economically

viable circular industry by creating alignment, avoiding duplication, and stimulating ambitious circular action across the electronics value chain.

- We maintained an independent Grievance Hotline to provide workers with a forum to ask questions and report issues with directly contracted suppliers in our supply chain.
- We are partnering with suppliers to see how plastic waste recovered from our oceans, waterways, and beaches can be processed and used in consumer products.
- We have partnered with The Recycling Partnership to build two recycling units at an existing solid waste drop-off location in Mecklenburg County, Virginia, where residential recycling services currently are limited. This project will allow residents to recycle plastic, glass, aluminum, steel, cardboard, and mixed paper, and provide public education for residents and operational training for county staff.

For more initiatives related to Goal 12, see our efforts to employ technology to help farmers grow more crops sustainably and to use water more efficiently (Goals 2 and 6), replace water consumption in water-stressed areas where we operate (Goal 6), invest in clean energy and innovative sustainable technologies (Goals 7 and 13), and achieve carbon negativity while reducing the environmental footprint of our operations, products, and services (Goal 13).

OUR PROGRESS

Circular Centers

We have planned five Circular Centers, with Amsterdam open, construction underway in Boydton, Virginia, and three more to be added in Dublin, Chicago, and Singapore in 2022. This has projected savings of $100 million per year once fully scaled and will enable 90 pe rcent reuse by 2025.

>15,200 metric tons

In FY21, we diverted more than 15,200 metric tons of solid waste otherwise headed to landfills and incinerators across our direct operational footprint.

Transformed waste accounting

We transformed our waste accounting using Microsoft technology, including PowerApps, Dynamics 365, and Power BI, increasing our collection of actual waste data and providing greater visibility into waste types.

18% reduction

We reduced single-use plastics in our Microsoft product packaging by 18 percent or from 5.7 percent to 4.7 percent by weight (on average) of plastic per package in FY21.

>90% recyclable

We achieved a 97 percent recyclable Xbox Series X and S, and a 93 percent recyclable metal Surface Laptop 4, in Organization for Economic Cooperation and Development (OECD) countries per the UL methodology ECVP 2789.

Recycled waste materials

We introduced two new accessories that are made in part from recycled waste materials: several new Xbox Wireless Controllers, built using over 30 percent post-consumer recycled (PCR) materials; and the Ocean Plastic Mouse, which has a plastic shell made with 20 percent recycled ocean plastic.

Zero Waste datacenters

Four datacenters are Zero Waste certified, with new certifications for the San Antonio, Texas, and Quincy, Washington, datacenters and renewed certifications for our Boydton, Virginia, and Dublin, Ireland locations.

Zero Waste campus roadmaps

Eleven campuses now have customized roadmaps to achieve zero waste by 2030. Our Puget Sound campus has been Zero Waste certified since 2016.

Invested in Rheaply

We invested in circular economy startup Rheaply to help companies measure carbon emissions savings from reuse and fuel the circular economy.

Source: *2021 Environmental Sustainability Report: A Year of Action*, Microsoft Corporation, 2022.

Goal 14: Life Below Water

Billions of people around the world rely on aquatic life for food, resources, and employment. But underwater ecosystems face severe stress from pollution, waste, and unsustainable fishing practices.

Microsoft is committed to providing resources and technology tools to better understand and manage these critical resources. Target 14.a calls for increased scientific knowledge and research capacity related to underwater ecosystems. We believe that current and emerging technologies can play a significant role to conserve and sustainably use the oceans, seas, and marine resources.

Our partnerships

- The Ocean Cleanup uses machine learning to identify plastic pollution in rivers and simulate how it moves in the ocean. These insights power passive cleanup systems to help remove plastic that impacts our ecosystems.
- Together with the Center for the Fourth Industrial Revolution and the Ocean (C4IR Ocean), Microsoft is building the Ocean Data Platform, which combines open data and technology to improve ocean health.

Current and emerging technologies can play a significant role to conserve oceans, seas, and marine resources.

HIGHLIGHT

One-third of fishing stocks in the world today are overfished—posing a severe threat to the food supplies of people around the world. These problems are worsened by illegal, unreported, and unregulated fishing, which catch between 11 million and 26 million metric tons annually and cost the industry as much as $24 billion—with the burden falling disproportionately on the poorest nations with the least ability to police their waters.

Microsoft AI for Earth partner OceanMind is working to increase the sustainability of fishing by identifying vessels that may be breaking regulations—analyzing their movements with AI and data analytics on Microsoft Azure—and providing its insights to fishing authorities. OceanMind combines diverse data points to determine a vessel's movement behavior, and AI systems can identify suspicious activity that warrants investigation.

- In 2020, Microsoft joined C4IR Ocean for ocean innovation and technology in Norway. Since then, we have expanded our work with a new project that has us working with C4IR Ocean to deliver a tracking application for maritime vessels to forecast GHG emissions from maritime transportation. This information is made available through C4IR's Ocean Data Platform for regulators, finance institutions, and port and coastal authorities to enable data-driven decisions related to the environmental impact of shipping.

Our support

- In collaboration with the National Oceanographic and Atmospheric Administration (NOAA), the Microsoft AI for Earth team developed a machine learning model that automatically detects and classifies beluga whale acoustic signals and ice seals in aerial imagery, reducing the time required to annotate data and to answer key conservation questions.
- The University of Washington is developing AI tools to better forecast marine heatwaves, which disrupt marine food chains and lead to declines in fish populations. A grant from Microsoft and Global Wildlife Conservation (now known as Re:wild) funds this project. The Scripps Institution of Oceanography is using machine learning and drone imagery to evaluate mangrove ecosystems on a local and global scale, providing stakeholders and decision-makers with data for effective management and conservation. A grant from Microsoft and the National Geographic Society funds this project.
- Microsoft and the National Geographic Society awarded a grant to enable Project Atitlán. Researchers with the project are using AI to map and predict the occurrence of destructive algae blooms, generally caused by pollution, in Guatemala's Lake Atitlán.

For more initiatives related to Goal 14, see our efforts to employ technology to help farmers grow more crops sustainably and to use water more efficiently (Goals 2 and 6), replenish water consumption in water-stressed areas where we operate (Goal 6), invest in clean energy and innovative sustainable technologies (Goals 7 and 13), reduce waste and perform life-cycle assessments of our products' environmental impacts (Goal 12), and achieve carbon negativity while reducing the environmental footprint of our operations, products, and services (Goal 13).

Goal 15: Life on Land

Across the world, fragile ecosystems are under threat from human development and the effects of climate change, and nearly 1 million plant and animal species face extinction. Losing so much of the universal ecosystem in a short timeframe could be catastrophic for global food supplies and for the economic security of people who depend on biodiversity for their livelihoods.

Understanding the scope of these problems is crucial to developing plans to solve them. Target 15.2 seeks to promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests, and increase afforestation and reforestation globally. Microsoft believes that we must act now to avert this crisis—and that technology can **help to sustainably manage forests, measure progress, and halt biodiversity loss.**

Our programs

- Since its inception in 2017, our AI for Earth program has provided more than 850 grants to organizations working in 110 countries around the world, granting more than $20 million in Azure credits.

Technology can help to sustainably manage forests, measure progress, and halt biodiversity loss.

HIGHLIGHT

In April 2020, we announced our biodiversity initiative, focused on preserving and protecting the biodiversity and health of the world's ecosystems, another pillar in our sustainability initiatives launched that year. We are mindful that sustainability issues are no less urgent or important today—even as the coronavirus pandemic continues to upend daily life for many. Nature and the benefits that it provides to people remain the foundation of our global economy, our culture, and the overall human experience.

Based on lessons learned as we grew the initiative, we committed to building the Planetary Computer: a platform to provide access to the world's critical environmental data sets. We are continuously onboarding more data with our customers and partners and building the tools that make it easier for scientists to ask global-scale questions of large data sets, then present those results in applications that support environmental monitoring, forecasting, planning, and attribution. We have now launched the Planetary Computer, with more than 24 petabytes of environmental science data from dozens of sources, including Sentinel-2, Landsat 8, and several NOAA programs, which are now freely available for use by the conservation community. Some examples of applications from our global partners include CarbonPlan's forest risk mapping tool and Development Seed's AI-accelerated land mapping platform.

- We have contracted to protect more than 17,000 acres of land including Maya Forest land and permanent conservation easements in Montana, Colorado, New Mexico, and Nevada that will protect the migration corridors for species of greatest conservation need. This puts us on a path to exceed our commitment to protect more land than we use by more than 5,000 acres.
- Microsoft has planted hundreds of acres of native woodland across Ireland, restoring native forests for local populations and sequestering thousands of tons of carbon emissions.
- We released the Planetary Computer, which enables global-scale environmental monitoring by combining petabytes of data and spatial analysis tools to power sustainability applications. It is a platform that lets users build on the power of the cloud to accelerate environmental sustainability and Earth science.
- We are using our voice to advance policy that will help the world protect ecosystems and biodiversity, by promoting:
  - National ecosystem assessments, which help governments understand what is happening in a country's natural environment and what actions are needed to safeguard critical ecosystem services infrastructure to accelerate measuring and monitoring of ecosystems. This includes digital tools and broadband connectivity, to help collect, integrate, and make publicly available data and real-time insight into the health of our ecosystems.
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  - Public land and water conservation, including government funding for the acquisition and maintenance of land and water for conservation, recreation, and natural preservation. This also includes public-private partnerships that encourage and facilitate investments by nongovernmental organizations, individuals, and the private sector to protect and restore critical ecosystems.

Our partnerships

- We partnered with the Group on Earth Observations (GEO) Secretariat to better reach geospatial researchers and practitioners working at the forefront of environmental use cases. We launched the $1 million GEO-Microsoft Planetary Computer grant program to support early adopters of the Planetary Computer to apply Earth observations to address environmental and societal challenges. We selected the

first eight grant recipients in September 2021. Recipients received access to Norway's International Climate and Forest Initiative Satellite Data Program on Azure and launched a second RFP in October 2021 in partnership with Planet Labs.

- We launched a new partnership with the UN Biodiversity Lab to help connect remote observations, field data, and AI/machine learning tools. This work, powered by the Planetary Computer, will enable countries to develop richer environmental accounts and drive better environmental decision-making.
- Fostering global connections and collaboration will be critical to address climate change. In the past year, we broadened our work with the Group on Earth Observations Biodiversity Observation Network (GEO BON) to connect with a global network of scientists to enable a scalable approach to expanding and accessing biodiversity information and insights.
- We're supporting CSIRO in Australia to establish a climate intelligence platform that puts trusted and credible climate risk science in the hands of businesses in Australia and the Asia region and enables them to assess, disclose, and manage their climate risks. In addition, together with CSIRO and the University of Reading, we have developed a research partnership to improve our understanding and assessment of climate change risk.
- We continue to support the OS-Climate initiative, which is accelerating the development of scenario-based predictive analytic tools and investment products that manage climate-related risk and finance climate solutions across every geography, sector, and asset class. Microsoft is a founding member, contributes our expertise on climate risk and data, and provides additional technology support for the development of new tools and approaches.
- The Radiant Earth Foundation develops Earth observation machine learning libraries and models through an open-source hub to support global missions like agriculture, conservation, and climate change. We support Radiant Earth by co-building some of the key software libraries, making it easy to bridge to and from the Planetary Computer. We also are jointly running competitions to improve machine learning models.
- Microsoft partnered with Esri to publish a new high-resolution 2020 Global Land Cover map for users around the world. The 10-Meter Land Cover map is the collaborative result of compute and Sentinel-2 data from the Microsoft Planetary Computer and a novel deep learning AI model developed by Impact Observatory. High-resolution, open, accurate, and timely land cover maps are critical for decision-makers in many industry sectors and developing nations, supporting a broad range of sustainability and conservation efforts. The data is hosted in ArcGIS Living Atlas of the World and the Planetary Computer.
- Conservation Science Partners' Analytics Lab uses the Planetary Computer to better visualize ecosystem monitoring projects and help make the findings more intuitive and accessible. These mapping applications assess wildlife habitat connectivity on working landscapes, anthropogenic impacts to terrestrial landscapes, and changes in forest structure over time.
- The Nature Conservancy (TNC) is using the Planetary Computer to protect and manage land, oceans, and freshwater

biodiversity for nature and people. In partnership with Microsoft, TNC is scaling impact and accelerating conservation with Marxan, a world-leading decision-support software for spatial conservation planning. Microsoft and TNC are enabling more equitable access to Marxan by bringing it to the cloud with platform development support from Vizzuality. Together we are helping people around the world make evidence-based decisions more quickly, inclusively, and transparently to protect the world's biodiversity.

- CarbonPlan is using the Planetary Computer to enable more transparent and scientifically rigorous evaluation of forest-based climate solutions. By shining a light on data from past and future carbon offset projects, procurement programs can better understand the climate risks of carbon credit purchases. Microsoft used this application to visualize the climate risks of forest carbon offsets to help us manage our carbon removal purchasing program more effectively.
- Imazon, together with Fundo Vale and Microsoft, is integrating an existing rainforest deforestation risk model algorithm into Azure. With a more robust imagew-processing forest model, the PrevisIA platform can identify unofficial roads—one of the leading indicators of future deforestation—and simulate future scenarios to stop rainforest loss events, like forest fires, before they happen.

For more initiatives related to Goal 15, see our efforts to employ technology to help farmers grow more crops sustainably and to use water more efficiently (Goals 2 and 6), replace water consumption in water-stressed areas where we operate (Goal 6), invest in clean energy and innovative sustainable technologies (Goals 7 and 13), reduce waste and perform life-cycle assessments of our products' environmental impacts (Goal 12), and achieve carbon negativity while reducing the environmental footprint of our operations, products, and services (Goal 13).

2021 progress

$571M

Allocated $471 million to date via our Climate Innovation Fund to accelerate our carbon goals, as well as water and waste. We also donated $100 million to Breakthrough Energy's Catalyst initiative.

Carbon

2.5M tons

In FY21 and FY22, Microsoft successfully contracted to remove 2.5 million mtCO2, meeting our cumulative two-year goal.

5.8 GW

In FY21, we signed new power purchase agreements (PPAs) for approximately 5.8 gigawatts (GW) of renewable energy across 10 countries around the globe.

87% suppliers reporting

In July 2021, 87 per cent of our in-scope suppliers reported their emissions to CDP, up 12 percent from 2020.

Microsoft Cloud for Sustainability

In July 2021, we launched the Microsoft Cloud for Sustainability to provide comprehensive, integrated, and automated sustainability management.

Water

1.3M m^3

In FY21, Microsoft invested in replenishment projects that are expected to generate over 1.3 million cubic meters of volumetric benefits.

670M

Our programs with Water.org account for over 670 million liters[9] of water benefit per year.

>95K people

Through our partnership with Water.org, we provided more than 95,000[10] people with access to safe water or sanitation.

US Water Prize

In 2021, Microsoft was awarded the U.S. Water Prize for Outstanding Private Sector Organization for adopting our water positive program and committing to being water positive by 2030.

Waste

Circular Centers

We have planned five Circular Centers, with Amsterdam open, construction underway in Boydton, Virginia, and three more to be added in 2022.

>15,200 tons

In FY21, we diverted more than 15,200 metric tons of solid waste otherwise headed to landfills and incinerators.

Zero waste

Four datacenters are Zero Waste certified, with new certifications for the San Antonio, Texas, and Quincy.

18% reduction

We reduced single-use plastics in our Microsoft product packaging by 18 percent.

Ecosystems

>17,000 acres

In FY21, we contracted to protect more than 17,000 acres of land.

>500 users

The Planetary Computer private preview released as planned in April 2021, with more than 500 users signed up and using the APIs and scalable compute.

24 petabytes

We have made available 24 petabytes of data with more than 30 key environmental and Earth observation datasets to Azure in consistent, analysis-ready format that is freely available for use by anyone.

850+ grants

Since its inception in 2017, our AI for Earth program has provided more than 850 grants to organizations working in 110 countries around the world, granting more than $20 million in Azure credits.

Source: 2021 Environmental Sustainability Report: A Year of Action, Microsoft Corporation, 2022.

Antony Cook on digitally empowering communities

Across the world, the issues that customers, governments, and nonprofits face can often be varied and unique. But if there is one area where that they all share a common passion, it is environmental sustainability. Microsoft has an enormous opportunity—and indeed responsibility—to bring our thought leadership, bold sustainability commitments, and technology to assist all stakeholders and empower organizations to achieve their own sustainability development goals.

Some of the best examples of our partnerships can be found in Latin America, where pioneering customers such as Ecolab in Brazil are using the Microsoft cloud platform to develop predictive risk models for the health of water systems with reduced development and deployment times. Meanwhile, in Chile, Colbún is fast-tracking the digitization of its sprawling mining operations, helping it improve analytics that make its production and operation processes more sustainable. And in Peru, Minsur is combining Microsoft Azure Video Analyzer and Cognitive Services to make the visual control process during water treatment at the largest tin mine in the Western Hemisphere more efficient and safe.

But, even with the shared commitment to finding sustainability solutions, many organizations cannot find the talent for implementing these new technologies. The level of digital skills and capabilities of employees across our customers, nonprofits, and government partners is not keeping up with the pace of emerging technologies. That is why we are focused on making digital skills training more accessible, committing ourselves to providing free learning paths to millions of people, helping companies make skills-based hires, and partnering with universities to improve the teaching curriculum and upskilling of teachers.

Specific initiatives that Microsoft is taking on a regional basis:

APAC

- Many businesses in this region cannot find talent for implementing new technologies. This skill shortage is rife for emerging technologies, such as AI. A lack of thought leadership and risk-taking at the higher echelons further inhibits new technology adoption. Addressing these challenges is key to making digital skills training accessible.

CEE

- Challenges in this part of the world mostly concern conveying the right messages to governments as to the benefits these new technologies can provide. It takes a lot of effort and goodwill to create a trusted and transparent relationship—a relationship that derives from the fact that we are there to support every organization to achieve more through the use of technology and to support them to succeed in their goals.
- The challenges Microsoft faces when bringing innovation and technological advancement are, in fact, connected with the level of digital skills and capabilities of employees across our customers, nonprofits, and government partners. One can have an amazing idea or project, but without digital skills, one is not able to bring it to its full potential. Therefore, we focus on improvement of digital skills in all age categories (especially during the coronavirus pandemic, when many people have lost their jobs and, without digital skills, are not competitive in the labor market).
- Microsoft is running global skilling initiatives and localized programs in many countries:
  - Improvement of Education/ Educating Teachers: We're partnering with Slovak universities to enhance teachers' curricula through a project focusing on educating teachers to improve their digital skills and pass them on to their students.
  - Driving Digital Skills Project with Labor/Trade Unions: Microsoft is cooperating with trade unions in the Czech Republic to design a custom-made digital skills program to educate more than 60 union leaders, who will become ambassadors of digital upskilling across the community and spread awareness of the benefits of joining Microsoft online courses for free to get certified.
  - Skilling Initiative: During the

> “We have an enormous opportunity to bring our thought leadership, bold sustainability commitments, and technology not only to our customers, but also to all stakeholders at large ....”

coronavirus pandemic, 27,000 people participated in our skilling initiative in Croatia, placing third in the number of certified people in the CEE region (academia, nonprofits, government, partners, business customers).

LATAM

- Sustainability is a hot topic in LATAM, but organizations across sectors are still unclear on what their specific role should be in tackling the sustainability challenges we are facing. Very few companies are bringing the environmental conversation to the forefront of the discussion and have started conversations with Microsoft to obtain technological and consulting support on this front. We have an enormous opportunity to bring our thought leadership, bold sustainability commitments, and technology not only to our customers but also to all stakeholders at large, on the types of things that organizations can do to achieve their own sustainability development goals. Pioneering LATAM customers in this regard include:
  - **Ecolap** (Brazil), using Azure and MLOps to develop predictive risk models for the health of water systems with reduced development and deployment times
  - **Colbún** (Chile), using Power BI to automate the calculation of its carbon footprint
  - **Codelco** (Chile), fast-tracking the digitization of its sprawling mining operations, helping it improve analytics that make its production and operation processes more sustainable
  - **Ecopetrol** (Colombia), leveraging our cloud solutions to shorten the development cycle of crude oil exploration
  - **Minsur** (Peru), combining Microsoft Azure Video Analyzer and Cognitive Services to make the visual control process during water treatment at the largest tin mine in the Western Hemisphere more efficient and safer

Middle East and Africa (MEA)

- Sound digital policies and a stable, harmonized regulatory environment are critical to enable Africa's people and businesses to realize the full potential of innovative technologies and to participate fully in global digital technology. Freedom to transfer data across borders, the moratorium on customs duties, regulatory harmonization, and cybersecurity are all critical elements of digital policies that foster trustworthy, inclusive, and equitable digital transformation leading to economic growth. There is an opportunity for stakeholders to coalesce on joint policy positions on the topics that are most pertinent for the African people and to support the digital transformation of the continent.

Goal 17: Partnerships for the Goals

- **Making meaningful progress** on the SDGs will require governments and organizations around the world to work together. Microsoft is leveraging its position as a global company and technology leader to drive cooperation and collective action around the SDGs. This goal also includes a strong technology component, and we consider our technology-focused partnerships to be of special significance to the sustainable development agenda in a digital-first world. Target 17.6 calls for enhanced North-South cooperation on science, technology, and innovation knowledge. Target 17.7 aims to promote the development and dissemination of environmentally sound technologies to developing nations. Also, Target 17.8 identifies the importance of ICT for capacity building in least-developed nations.

Our partnerships

- The Partnership for Central America is a coalition of private-sector organizations established in response to a call from the Biden administration for private-sector and social enterprises

17 PARTNERSHIPS FOR THE GOALS

Microsoft has pledged to support the 2030 UN Sustainable Development Goals.

HIGHLIGHT

Microsoft is one of nine founding members of the Transform to Net Zero initiative, an innovative partnership between major global companies to develop and deliver research, guidance, and implementable roadmaps for eliminating carbon emissions. This first-of-its-kind partnership will focus on enabling the business transformation needed to achieve net-zero emissions across the entire value chain no later than 2050. It also aims to drive broader change within industry, government, and society through policy, innovation, and finance. The initiative is committed to sharing its findings and best practices, helping other companies along on their own journeys to carbon reduction. Finally, recognizing that poor and marginalized groups bear the greatest impact of climate change, the partnership will focus on opportunities for just and sustainable transition to net zero carbon emissions.

to make new commitments to support local economic opportunity to help address the root cause of migration from the Northern Triangle. Microsoft leads the Digital Access pillar and has committed to expand broadband access to 4 million people and train over 100,000 people in the region by 2024.

- In December 2021, Microsoft served as the 10th Principal Partner for the 26th UN Climate Change Conference of the Parties (COP26) in Glasgow, Scotland. As a Principal Partner, Microsoft supported the delivery of a successful and ambitious COP26, alongside SSE, ScottishPower, NatWest Group, National Grid, Sky, Sainsbury's, Hitachi, Reckitt, and GSK.
- Since September 2021, Microsoft has collaborated with the Internet Governance Forum Secretariat on a capacity-building workshop series. The "Our Digital Future" series build capacity in the areas of digital transformation and cybersecurity, and it is focused on serving developing countries. In its announcement, the IGF Secretariat stated that the capacity-building workshops are "driven by the call in the UN Decade of Action to partner for the Sustainable Development Goals" and will support stakeholders by focusing on themes covered in SDG 9 and SDG 16.
- Microsoft is demonstrating the potential to use digital technology in private-sector collaborations, including on the international human rights front, through its landmark partnership with the UN OHCHR. Specifically, the partnership developed Rights View—an information dashboard allowing the OHCHR staff to aggregate large quantities of internal and external data on specific countries and the types of rights violations in real time.
- Microsoft partners with development banks on several initiatives to help scale our programs and multiply our impact. For example, we partner with the AfDB on C4E to equip Africa's young workforce with in-demand skills. We also partner with the Solutions for Youth Employment division of the World Bank to develop innovative solutions to youth employment, through partnership with public and private stakeholders to enable solutions at scale. And most recently we have partnered with the Islamic Development Bank to promote social and economic development in its member countries and Muslim communities worldwide, delivering impact at scale aligned to the 2030 Agenda.

Our support

- Microsoft was one of the first signatories to and is one of the most prominent supporters of the Paris Call for Trust and Security in Cyberspace and its nine principles to promote responsible behavior by all actors online. In 2021, the French Government launched six Paris Call working groups to leverage its community of supporters to live out the vision of the agreement. Microsoft is proud to be co-chairing the working group tasked with advancing international norms.

- In May 2019, Microsoft joined four other leading technology companies to sign the Christchurch Call. The Call commits to nine steps that expand on the Global Internet Forum to Counter Terrorism and builds on our other initiatives with government and civil society to prevent the dissemination of terrorist and violent extremist content. Microsoft and other leading technology companies published the steps that they will take to address the abuse of technology and prevent its use to spread terrorist and violent extremist content.
- Microsoft President Brad Smith joined more than 40 international leaders calling on the world's governments to take immediate and decisive action to prevent and stop cyberattacks that target the healthcare sector and the authorities that are providing critical care and guidance during the ongoing coronavirus pandemic.
- Microsoft has pledged to support the 2030 UN Sustainable Development Goals, promoting and supporting innovative solutions from our community in the #BuildFor2030 campaign.
- Microsoft is a member of the OECD partnership Business for Inclusive Growth, a public-private alliance aimed at addressing inequalities and creating opportunities.

For more initiatives related to SDG 17, see our partnerships listed under each of the other SDGs.