



We support the Sustainable Development Goals



# Microsoft and the United Nations Sustainable Development Goals

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## Foreword

The most pressing challenges we face today, including poverty, inequality, climate change, and universal healthcare, urgently call for bold solutions. In 2015, recognizing the need to address these challenges, the United Nations (UN) created the Sustainable Development Goals (SDGs) as a blueprint to mobilize efforts across all Member States and stakeholder groups. The SDGs set 17 Global Goals to achieve by 2030, ensuring that we take the bold steps necessary to tackle those challenges.

The Global Goals are consistent with our company's mission to empower every person and every organization on the planet to achieve more. We believe technology is a positive force in transforming our world and people's lives when it is developed and used in trusted, responsible, and inclusive ways. Advancing our mission means contributing to a future that empowers everyone. That is why we are putting technology in the hands of those who are addressing our most pressing societal challenges—so they can have a greater impact. We believe technology is a powerful force for good, and all of us here at Microsoft are working together to foster a sustainable future where everyone has access to the benefits it provides and the opportunities it creates.

To share more information about that work with you, this paper highlights some of the contributions that Microsoft is making to achieve the 17 SDGs—typically by exercising the power of digital technology. The Microsoft commitment to addressing some of the biggest challenges facing the future of society inspires me. Through innovation, investment, and partnership, we seek to advance the SDGs and to contribute to a sustainable future that is truly for everyone.

Although the need for sustainable development is broadly recognized, there continues to be a gap in the resources needed to make meaningful progress toward these shared goals. Only by recognizing this gap and by taking action—as individuals, communities, and organizations—can we rise to meet today's challenges and to lay the framework for a future where everyone can thrive.

That is why we are committed to acting on sustainable development efforts and partnerships that spark economic opportunity and social inclusion and that drive lasting progress. I look forward to building on these efforts with the UN community and to contributing to multistakeholder initiatives necessary to achieve the SDGs.



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## Introduction and context

For the next 10 years, the United Nations (UN) Sustainable Development Goals (SDGs) represent a shared and universal commitment to deliver on ambitious Global Goals for people and the planet. In 2015, when the United Nations General Assembly adopted the 2030 Agenda for Sustainable Development, along with a set of 17 SDGs and 169 associated targets, the UN recognized that partnerships will play a crucial role as vehicles for mobilizing and sharing knowledge, expertise, technologies, and financial resources.

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. We believe the digital transformation of the global economy can make a difference and help address the challenges underlying the UN Sustainable Development Goals.

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.”<sup>1</sup>

We share the position expressed in the High-level Panel’s report. 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—when it is used in trusted, responsible, and inclusive ways. 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 10 years to go to deliver the SDGs, the UN Decade of Action is underway—mobilizing more governments, civil society, and businesses and calling on all people to 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.

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<sup>1</sup> “The Age of Digital Interdependence: Report of the UN Secretary-General’s High-level Panel on Digital Cooperation,” June 2019: page 15. <https://digitalcooperation.org/wp-content/uploads/2019/06/DigitalCooperation-report-web-FINAL-1.pdf>

In this paper, we focus on what we consider to be our unique contributions:

- Our **programs** supporting the SDGs, often through the application of Microsoft technologies, products, and services
- Our **partnerships** to advance progress on topics in the sustainable development agenda
- Our **support** for initiatives aiming to empower communities around the world

## IMPACT AT A GLANCE



Source: 2019 Microsoft Corporate Social Responsibility Report

## Section one: The SDGs we focus on

A number of Microsoft initiatives are directly and indirectly advancing progress on all 17 SDGs. In this paper, we first discuss the four SDGs that we currently *focus on* as a company. Then we show how we are *contributing to* each of the other 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 relevant SDG is seeking to tackle. Although our unique strength lies in digital technologies, we also 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.

At Microsoft, we have also reflected on three key pillars that most of our contributions stand on: empowering people, strengthening communities, and protecting the planet. These pillars correspond most closely to the following four Global Goals: SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), SDG 13 (Climate Action), and SDG 16 (Peace, Justice and Strong Institutions).

This section offers information and links to relevant Microsoft programs, partnerships, and support initiatives to indicate how we are helping to address the four SDGs we are focused on as a company. We hope these examples inform broader, additional contributions needed for the important work being done to deliver the promise of the SDGs in its last 10-year stretch.

## SDG 4: Quality Education

### 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 to be life-ready by the time they graduate. Target 4.4 aims to substantially increase the number of youth and adults who have 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.

### HIGHLIGHT

Through [Microsoft Philanthropies](#), we are investing our resources and our voice to equip underserved people with the computing science education and digital skills needed to gain employment in the digital economy. To achieve our goal, we focus our investments in three core areas:

1. Offering learning pathways and industry-recognized credentials to equip people—at every stage of their life—with the in-demand skills they need to compete in the digital economy
2. Building the capacity of nonprofit organizations and education providers to scale their impact
3. Supporting advocacy and collective action to promote connections to employment in the digital economy and to foster positive, systemic change

From July 1, 2018, through June 30, 2019, through more than 110 partnerships with nonprofits and nongovernmental organizations (NGOs) across 42 countries, we reached millions of young people with quality digital skills experiences and computer science education, helping to ensure we prepare them to pursue today's jobs and tomorrow's opportunities.

Our grantees have trained more than 180,000 teachers to teach computer science, equipping them with the skills and resources to reach millions of students with high-quality, inclusive computer science education.

### Our programs

- [The Learning Passport](#), created in a partnership between Microsoft and the United Nations Children's Fund (UNICEF), is a digital platform that will facilitate learning opportunities for children and young people affected by conflict and natural disasters.
- Microsoft is a founding member with the United Nations Educational, Scientific and Cultural Organization (UNESCO) as part of the [Global Education Coalition](#) for COVID-19 response. The coalition seeks to facilitate inclusive learning opportunities for children and youth during this period of sudden and unprecedented educational disruption.



- 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. TEALS has expanded in 13 states and the District of Columbia to bring computer science education to an additional 620 high schools, primarily serving Black and African-American students.
- [Microsoft Learn](#) resources provide free professional-level technical skills content. Users can master new concepts at their speed and on their schedule. Plus, educators can get access to Microsoft classroom materials and curriculum.
- In response to COVID-19, Microsoft rapidly created an [extensive toolkit of materials](#) and training opportunities for educators, parents, and students to adopt remote and hybrid learning.

## Our partnerships

- We are helping schools transform learning, develop skills for the future, and create inclusive environments that support social and emotional learning. For example, [Colégio Casa Mãe in Portugal](#) brings together the whole suite of Microsoft education solutions to develop digital literacy, drive continuous learning, and build student knowledge and life skills.
- In partnership with the [Microsoft Airband Initiative](#), [BLUETOWN](#), a Danish internet service provider (ISP) operating in Ghana, is looking to deliver accessible, locally relevant educational content, created by eKitabu and hosted on the BLUETOWN local cloud.

## Our support

- Microsoft is supporting ministries of education across the world (for example, in [Bahrain](#) and [Azerbaijan](#)) in rapidly creating remote and hybrid learning strategies, through using Microsoft Teams as a learning platform, while deploying teacher training webinars through [Microsoft Global Training Partners](#) to help ensure that teachers are able to use tools effectively.
- The [Datacenter Academy Scholarship](#) supports students enrolled in the Microsoft Datacenter Academy program at Laramie County Community College in Wyoming. Scholarships are targeted to students that have historically been underrepresented in STEM and technical fields, such as women, Black and African-American, Hispanic, and Indigenous people.
- The [Great Aspirations Scholarship Program \(GRASP\)](#) leverages Microsoft support to place dedicated educational and financial advisors in schools in rural Virginia.

- 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 is creating an [Innovation Lab](#) for children, parents, and educators to use technology to foster creativity and problem solving, thanks to a grant from the Microsoft Community Empowerment Fund.

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

## SDG 8: Decent Work and Economic Growth

### 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

150,000 employees worldwide and is committed to providing skills training and economic opportunity in the communities where we operate—with a focus on equitable and inclusive growth spurred by access to technology.

### HIGHLIGHT

In June 2020, Microsoft launched an initiative to **help 25 million people worldwide acquire the digital skills needed in a COVID-19 economy**—by the end of the year. Our goal is to help those who have become unemployed due to the coronavirus pandemic and resulting economic crisis 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. It 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 will build 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 dataset, we have identified 10 job types that are most in demand in today's economy and are well positioned to grow in the future. 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, and it couples these with Microsoft Certifications and LinkedIn job-seeking tools. In addition, Microsoft is backing the effort with \$20 million in cash grants to help nonprofit organizations worldwide assist the people who need it most. One-quarter of this total—\$5 million—will be provided in cash grants to community-based nonprofit organizations that are led by and serve communities of color in the United States.

## Our programs

- In May 2019, Microsoft launched the [Africa Development Center \(ADC\)](#), representing the first-ever Microsoft engineering offices in Africa, with two initial sites in Nairobi, Kenya, and Lagos, Nigeria. The ADC serves as a premier center of engineering for Microsoft, where world-class African talent can create innovative solutions fueled by artificial intelligence (AI) and machine learning to impact their communities in areas that include healthcare, agriculture, finance, and human-centric automation. This builds on our strong partnerships to accelerate digital transformation in Africa and to create sustained societal impact. (Earlier, in March 2019, we [opened Africa's first hyperscale datacenters](#) in South Africa, promoting business innovation in the cloud.)
- The [Microsoft 4Afrika Initiative](#) invests in startups, partners, small-to-medium enterprises, governments, and youth on the African continent. Working with these groups, the initiative's focus has been on delivering affordable access to the internet, developing skilled workforces, and investing in local technology solutions. The initiative is empowering those with the right ideas to drive economic development, inclusive growth, and digital transformation in Africa.
- [Microsoft Software and Systems Academy](#) provides transitioning service members and veterans, including those with clearance, with critical career skills required for today's growing technology industry.
- The [Microsoft Leap Apprenticeship Program](#) recruits and trains nontraditional talent for careers in the technology industry worldwide.
- Microsoft and Simplon created the [Microsoft AI School](#) program to close the employment gap by teaching data science, AI, and soft skills to adults who are new to the technology industry.

## Our partnerships

- The [Global Skills Academy](#), a partnership between UNESCO and major corporations, including Microsoft, aims to create opportunities for digital upskilling and to enable free access to employability-oriented training materials for young people in the Middle East and Africa.
- A [partnership between Microsoft and the United Nations High Commissioner for Refugees \(UNHCR\)](#) is delivering future-ready digital skills in the Kakuma refugee camp in Kenya.
- [Skillful](#), a nonprofit initiative of the Markle Foundation, which partners with Microsoft, works with employers, educators, policymakers, and others to help the nearly 70 percent of Americans without college degrees get good jobs based on the skills they have or the skills they can learn—creating new opportunities for success in the digital era.

## Our support

- We are working to expand visibility into career opportunities for students in Southern Virginia by supporting the [Southern Virginia Youth Career Choice Expo](#).
- [Microsoft donates scholarships](#) to the Big Bend Community College Computer Science program in Washington State to help prepare underserved and underrepresented students for work in STEM fields.

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

## SDG 13: Climate Action

### 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.

#### HIGHLIGHT

In January 2020, we announced an ambitious goal and a new [plan to reduce and ultimately remove the Microsoft carbon footprint](#). **By 2030, Microsoft will be carbon negative, and by 2050, Microsoft will remove from the environment all the carbon the company has emitted—either directly or by electrical consumption—since it was founded in 1975.** This will be acted on with an aggressive program to cut our carbon emissions by more than half by 2030, both for our direct emissions and for our entire supply and value chain. We will fund this in part by expanding our internal carbon fee (in place since 2012 and increased in 2019) to start charging not only our direct emissions but also those from our supply and value chains. We also launched a new \$1 billion [Climate Innovation Fund](#) to accelerate the global development of carbon reduction, capture, and removal technologies.

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In January 2020, we announced an [extension to our internal carbon tax to cover every part of our operations, including Scope 3](#), and updated our supplier code of conduct to support this. This means that all Microsoft business divisions will be financially responsible for the carbon emissions they create, including through **value and supply chain activities**—the largest source of emissions and the most difficult to quantify. Distinctively, our internal carbon tax is not a “shadow fee” that is calculated—but not charged. Our fee is paid by each division in our business based on its carbon emissions, and the funds are used to pay for sustainability improvements.

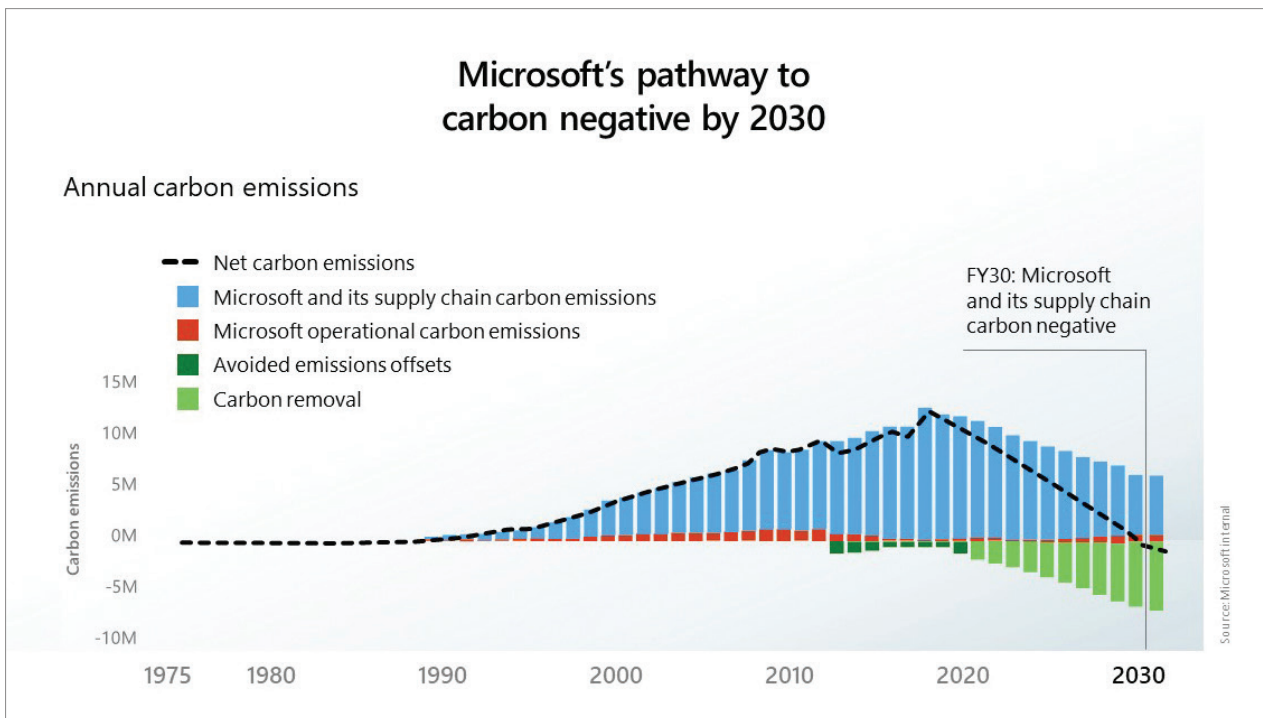
## Our programs

- Microsoft ensures that all our products meet or exceed voluntary [energy efficiency](#) standards, including ENERGY STAR.
- We are working to improve the [energy-saving features](#) of our hardware product portfolio to help our customers save energy.
- We have minimized use of materials and have reported greenhouse gas (GHG) emissions. We have also required that Tier 1 suppliers do the same, pursuant to the [Carbon Disclosure Project](#) (CDP).
- Microsoft banned the use of and required substitution for [ozone-depleting chemicals](#) and assessed hydrofluorocarbon (HFC) usage to prepare for minimizing related emissions and consumption.
- Researching new server cooling methods, like [liquid immersion cooling](#), is one of many steps Microsoft is taking to design datacenters with lower energy consumption and higher processing power, while also helping to eliminate water consumption.
- We also introduced the [Microsoft Sustainability Calculator](#) to help organizations analyze the carbon emissions of their IT infrastructure. We are taking concrete steps to reduce our [carbon emissions](#) by reducing our dependence on diesel-fuel backup power at our datacenters by 2030 and to remove 1 million metric tons of carbon from the environment in 2020. We have also updated our [supplier code of conduct](#) to reflect these goals.

## Our partnerships

- In July 2020, we joined forces with eight companies to establish a new initiative for accelerating the transition to a net zero global economy. We recognize that one company alone cannot solve the global carbon emissions challenge. 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. The initiative will be led by founding members, including A.P. Moller - Maersk, Danone, Mercedes-Benz AG, Microsoft, Natura &Co, Nike, Inc., Starbucks, Unilever, and Wipro, in addition to Environmental Defense Fund (EDF).
- We are investing \$50 million in the [Energy Impact Partners](#) (EIP) global platform for innovation of new technologies to transform the world's energy and transportation systems. Additionally, we launched an innovative new partnership that ties together our renewable energy purchases and investments in communities disproportionately affected by environmental challenges.
- Environmental management company [Bee'ah](#) is creating a sustainable future for its United Arab Emirates (UAE) headquarters through a Johnson Controls artificial intelligence-based (AI-based) solution on Microsoft Azure for energy efficiency and building management.
- Marriott International is pursuing its sustainability goals for 2025 of reducing water intensity by 15 percent, carbon intensity by 30 percent, and waste to landfills by 45 percent through [technology solutions from Ecolab and Microsoft](#).

- Polar scientist [Joseph Cook](#), an AI for Earth grantee, is exploring the changing cryosphere of Arctic glaciers by applying Microsoft Azure Machine Learning to optical data from drones and satellites. Through this project, he is providing the polar science community with a powerful new open-source tool and training data for understanding Earth's melting glaciers.
- [Terrafuse](#) leverages physics-enabled AI models, built on Microsoft Azure infrastructure, to help organizations understand climate-related risk at the hyperlocal level.



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



## SDG 16: Peace, Justice and Strong Institutions

### 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 across the world. Microsoft is taking on its responsibility as a global technology provider—from building innovative tools to secure institutions,

to working in partnership with companies, governments, and international organizations to develop frameworks for the responsible use and regulation of technology. When used responsibly and inclusively, we believe that **technology can 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).**

#### HIGHLIGHT

To protect human rights organizations from cyberattacks, **Microsoft AccountGuard for Human Rights Organizations** is a security service offered at no additional cost. The service provides unified threat detection and notification across accounts for organizations that use Microsoft 365. Today, nearly every human rights or humanitarian organization is focused on protecting the rights of people impacted by COVID-19. Nation-states and cybercriminals use attacks to gain intelligence on these organizations and the people who these groups protect or to disrupt their work. The AccountGuard service includes notification about cyber threats and attacks by known nation-state actors, along with security guidance and ongoing education.

### Our programs

- Microsoft has taken the role of lead **Business Avenger** for SDG 16, committing to providing financial contributions, business operations, and high-level influence to help achieve the goals of SDG 16 by 2030.
- The **Microsoft Defending Democracy Program** is focused on addressing cybersecurity and disinformation threats to democracies everywhere. The program includes efforts to improve campaign and election security, in addition to the security of organizations which underpin democracy.
- Microsoft has undertaken **a range of initiatives aimed at countering disinformation online.** We developed the Microsoft Video Authenticator, which uses AI to identify synthetic media (“deepfakes”). Another tool allows producers to tag content with a hash certificate that verifies its authenticity, and this certificate could be accessible to an end user via a browser extension.

## Our partnerships

- **PhotoDNA**, a technology developed in partnership with Microsoft and Dartmouth College, aids in finding and removing known images of child exploitation. PhotoDNA is used by organizations around the world and has assisted in the detection, disruption, and reporting of millions of child exploitation images.
- The **Vera Institute of Justice's Arrest Trends Dashboard**, backed by Microsoft Azure, combines 40 years of data from thousands of US agencies to enable users to better understand current and historical policing trends.
- Using Microsoft data and analytics tools, the **National Neighborhood Indicators Partnership** synthesizes multiple data sources to create a comprehensive measure of police-community relations at the neighborhood level in Los Angeles, in partnership with the Urban Institute and the University of Southern California (USC) Sol Price Center for Social Innovation.
- The **Law Enforcement Assisted Diversion (LEAD)** program works to divert persons accused of low-level drug or sex work to a case manager instead of incarceration. Microsoft has helped create a dashboard that automates the referral process and provides real-time insights to measure the efficacy of diversion tactics.
- We are working to create safe, secure, and ethical digital identification systems for the future, as a member of the Technical Advisory Council for the **ID2020 Alliance**.
- We are partnering with the University of Washington (UW), Sensity, and *USA TODAY* on **media literacy**. Improving media literacy will help people to sort disinformation from genuine facts and to manage risks posed by deepfakes and cheap fakes.
- **Project Origin** is a partnership between Microsoft and a consortium of media companies, including the BBC, the Canadian Broadcasting Corporation and Radio-Canada, and *The New York Times*, that aims to test Microsoft authentication technology for online content and to combat disinformation.
- We have partnered with the AI Foundation, a dual commercial and nonprofit enterprise based in San Francisco, on their **Reality Defender 2020 (RD2020)** initiative, which will make Video Authenticator available to organizations involved in the democratic process, including news outlets and political campaigns.

## Our support

- Microsoft is one of the initial funders of the **CyberPeace Institute**, announced in September 2019, which assists vulnerable communities, promotes transparency, and advances global discussions on acceptable behavior in cyberspace. The institute, an NGO in Geneva, Switzerland, marks a new milestone in global efforts toward de-escalating conflicts and promoting peace and stability in cyberspace.

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

## Section two: The SDGs we contribute toward

In the first section, we covered four of the 17 Global Goals that Microsoft is *focused on* as a company. This section of the paper provides examples of efforts Microsoft is making to *contribute toward* the other 13 SDGs. We are proud of the contributions we are making on these issues, as a member of the global technology community, but remain humbled by the scale of challenges that we all face to meet the Global Goals. A number of our initiatives are contributing to the attainment of specific targets, while others are part of the broader effort required to address the societal challenges which the relevant SDG is seeking to tackle.

To deliver on the SDGs by 2030, governments, business, civil society, and all concerned stakeholders must sustain and scale collective efforts on sustainable development. At Microsoft, some of our programs, partnerships, and the support we extend to various initiatives are supplementing the collective efforts needed to advance progress on the SDGs. We hope that other partners and stakeholders will join in helping the world achieve the SDGs and will provide additional approaches, information, and resources necessary to advance progress on the SDGs ahead of 2030.

## SDG 1: No Poverty

### 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 men and women**, in particular 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 that remove barriers to access so more people can experience the transformative benefits of the digital economy.

#### HIGHLIGHT

**TechSpark** is a Microsoft initiative to spark new economic opportunities and job creation in rural and smaller communities through local partnerships. TechSpark is focused on five program areas: digital transformation, digital skills and computer science education, career pathways, rural broadband, and support for nonprofits. The initiative is initially focusing our resources and deep partnership on specific communities in six states—North Dakota, Texas, Virginia, Washington, Wyoming, and Wisconsin. In April 2019, **Microsoft and the University of North Dakota (UND) Aerospace Foundation** announced that Microsoft granted \$100,000 in project funding to drive investment and boost North Dakota's ambitions to be the epicenter of US drone innovation and entrepreneurship.

## Our programs

- **Microsoft Philanthropies** donated or provided discounted software and services worth more than \$1.5 billion in public cloud computing services for nonprofits around the world, including United Nations agencies, in our fiscal year 2019.
- **AI for Humanitarian Action** is a Microsoft program harnessing the power of AI to focus on four priorities—helping the world recover from disasters, addressing the needs of children, protecting refugees and displaced people, and promoting respect for human rights. The program will work with selected NGOs and humanitarian organizations through financial grants, technology investments, and partnerships that combine our AI and data science expertise with their domain knowledge.

## Our partnerships

- [Partnerships for Economic Opportunities Through Technology in the Americas \(POETA\)](#) is a nonprofit partnered with Microsoft to train underserved groups in technology, life skills, employability, and entrepreneurship in more than 200 centers across 19 countries in Latin America and the Caribbean.
- A [collaboration between Microsoft and Mastercard](#) will accelerate Mastercard Labs' cloud-native research and development activities, enabled by Microsoft Azure and AI, to advance financial inclusion and accelerate digital commerce for individuals and businesses around the world.
- [Digital Custodians](#) is a partnership between Indigital, Shared Path Aboriginal & Torres Strait Islander Corporation, and Microsoft that enables community-led digital skills programs to strengthen culture, protect and preserve country, and create economic opportunities for Aboriginal and Torres Strait Islander peoples.

## 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 Africa and Asia by working with new businesses, students, NGOs, and Microsoft partners across both continents.

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

## SDG 2: Zero Hunger

### 2 ZERO HUNGER



In a world with a finite amount of arable land and a population that is expected to grow from 7.7 billion to nearly 10 billion by 2050,<sup>2</sup> farmers around the world are facing the urgent question of how to sustainably feed a global population. As the population expands and diets change, farmers will need to increase food production by about 70 percent. The 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. Target 2.4 calls for sustainable food production systems and resilient agricultural practices that increase productivity and production, and that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding, and other disasters, and that progressively improve land and soil quality. We believe **digital technologies and AI** can be part of the solution.

#### HIGHLIGHT

**Land O'Lakes and Microsoft announced a multiyear strategic alliance** to pioneer new innovations in agriculture and to enhance the supply chain, expand sustainability practices for farmers and the food system, and close the rural broadband gap. As one of the nation's largest farmer-owned cooperatives, with 150 million acres of productive cropland in its network, Land O'Lakes is deeply connected to rural America and has a unique understanding of farmers' needs and 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 programs

- **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 artificial intelligence models that provide a detailed picture of conditions on the farm. This empowers farmers to efficiently use natural resources—for example, water for precision irrigation that is guided by the generated intelligence. Since most farms have little or no internet access, FarmBeats transmits data via TV *white spaces*—the unused broadcasting frequencies between television channels (see related entry under SDG 9)—to an edge device at the farm and onto the cloud with Microsoft Azure.

<sup>2</sup> "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>

## Our partnerships

- **Microsoft and the US Department of Agriculture (USDA) partnered** on a pilot project on a 7,000-acre farm at the USDA's Beltsville Agricultural Research Center in Maryland, which is using FarmBeats. The USDA pilot is testing out FarmBeats technology on two crop system experiments at the Beltsville farm. With successful results, the functionality will be rolled out to more than 200 farms in a nationwide research network, from mom-and-pop operations to large commercial farms.
- Microsoft is working 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.
- The **AI Sowing App** that Microsoft and ICRISAT developed together draws on more than 30 years of climate data, combined with real-time weather information, and then uses sophisticated forecasting models powered by Microsoft Azure AI to determine the optimal time to plant, the ideal sowing depth, how much farm manure to apply, and more. That information is then shared with farmers through text messages that they receive on a basic feature phone.

According to the UN Food and Agriculture Organization (FAO), increasing production is only part of the answer to the problem we face in feeding the world's growing population. Almost as important is to reduce the amount of food that is wasted every year.<sup>3</sup> On the waste front, AI can play a significant role. It can contribute to ensuring that 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 brand-new milk processing and manufacturing facility operated by Australian Consolidated Milk (ACM) in Girgarre, a small town 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—monitoring quality and creating a rich data trail so the milk can be tracked from the farm to the store.
- ACM has also implemented a **sophisticated temperature monitoring system that uses sensors and Microsoft technologies**, including Azure and SQL, 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 SDG 2, see our efforts to replace water consumption in water-stressed areas where we operate and to help farmers use water more efficiently (SDG 6), promote decent work and economic growth for the digital age (SDG 8), extend internet and electricity to rural areas around the world (SDG 9), protect ocean resources from illegal fishing (SDG 14), and improve agricultural yields through technology and big data (SDG 15).

<sup>3</sup> The UN Food and Agriculture Organization estimates that one-third of all food produced for human consumption—1.3 billion tons—is wasted annually. <http://www.fao.org/climate-change/our-work/areas-of-work/food-loss-and-waste/en/>

## SDG 3: Good Health and Well-Being

### 3 GOOD HEALTH AND WELL-BEING



The 2020 coronavirus pandemic presents an unprecedented global health challenge. Microsoft is focused on providing digital technologies and support to help people around the world access better healthcare. The pandemic has demonstrated the vital nature of technology in today's healthcare landscape, especially in times of crises. We believe that their importance will only grow over time. **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.

#### HIGHLIGHT

On January 30, 2020, the World Health Organization (WHO) declared the coronavirus disease 2019 (COVID-19) outbreak as a Public Health Emergency of International Concern (PHEIC). By March 11, 2020, WHO declared that it had evolved into a pandemic. Given the urgency of the 2020 coronavirus pandemic, Microsoft is mobilizing our AI for Health initiative to focus on helping those on the frontlines of COVID-19 research. We are focusing our efforts in five specific areas where we think data, analysis, and the skills of our data scientists can have the biggest impact. And we are immediately dedicating \$20 million to this specific effort. This is part of [the larger Microsoft commitment toward fighting COVID-19](#), as we are working to support remote education and to empower students around the world, helping businesses to enable their employees to work from home, securing needed medical supplies, and supporting local communities. We hope this added commitment empowers researchers and organizations to solve this crisis. The work to fight COVID-19 is already underway. Some key partnerships in the fight include:

- The [COVID-19 High Performance Computing Consortium](#), a private-public effort spearheaded by the White House Office of Science and Technology Policy, for which Microsoft is providing researchers access to the world's most powerful computing resources, which can significantly speed the pace of scientific discovery in the fight to stop the virus.
- We are devoting our computing infrastructure, engineering, and research personnel to support a group of experts, both externally and in-house, to kick off the first phase of [helping healthy individuals who have recovered from COVID-19 to sign up to donate plasma](#) at licensed plasma collection centers across the United States.

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- [The Institute for Health Metrics and Evaluation \(IHME\)](#), a global health research organization at the University of Washington School of Medicine, is releasing a set of COVID-19 data visualizations and forecasts that the White House, the Federal Emergency Management Agency (FEMA), governors, and hospital administrators have started using to mobilize resources. Microsoft supports the hosting of IHME's COVID-19 data visualizations in Azure.
- [The Washington State Department of Health](#) and Microsoft have partnered to create a new, interactive dashboard that aims to increase timeliness, accuracy, and speed of data reporting to the public.
- Microsoft supports [Folding@home](#), a global organization that is researching COVID-19 proteins that could help with designing therapeutics.

## Our programs

- The [Microsoft Healthcare Bot](#) service is one solution that uses AI to help the Centers for Disease Control and Prevention (CDC) 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.

## Our partnerships

- Microsoft and Humana formed a [strategic partnership](#) to build modern solutions aimed at improving health outcomes and making healthcare experiences easier to navigate for aging populations.
- [Adaptive Biotechnologies](#) and Microsoft are [expanding their partnership](#) to decode COVID-19 immune response and to provide open data access.
- In collaboration with [Seattle Children's Research Institute](#), we are strengthening the medical understanding of the causes and diagnoses of Sudden Infant Death Syndrome (SIDS).
- We are working with the [Novartis Foundation](#) to accelerate efforts to eliminate leprosy by focusing on interventions that aim to interrupt transmission.
- Our partnership with [Intelligent Retinal Imaging Systems \(IRIS\)](#) is deploying end-to-end diabetic retinopathy diagnostic software, which can help curb preventable blindness, for use in primary care.
- By working with [Fred Hutchinson Cancer Research Center and the Cascadia Data Discovery Initiative](#), Microsoft is exploring new ways to unlock cross-organizational access to information that can lead to breakthroughs in research to accelerate new avenues for preventing and treating cancer.

## Our support

- At [Johns Hopkins Medicine](#) (JHM) in Baltimore, scientists and physicians are collecting and tapping vast amounts of data from clinical care, genomics—even wearable devices—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 in the country, [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 kept in optimal condition) through a mobile app. Using Microsoft technologies, like machine learning and computer visualization, the app helps government agencies to identify public health risks and disease hotspots and to mitigate the risk of epidemics.

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

## SDG 5: Gender Equality

### 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 information and communications technology, to promote the empowerment of women.**

#### HIGHLIGHT

Microsoft partnered with [Black Girls CODE](#) to enable the organization to launch its Seattle chapter, helping provide girls of color ages 7–17 exposure to computer science and technology so they can start seeing themselves in—and working toward roles in—technology. Supporting organizations like Black Girls CODE, which aims to train 1 million girls by 2040, is part of our mission to empower young people of all backgrounds with technology. We also support [Girls Who Code](#) and the [TECHNOLOchicas](#) program, through financial support and regular engagement. We believe these organizations play a role in closing the gender gap in the technology sector by increasing the pipeline of talented young people and creating a more inclusive profile of programmers. Microsoft believes that technology can empower everyone, and we are proud to support organizations that work to break down barriers and provide opportunities for underrepresented groups, even as we work internally to ensure that our workplace is welcoming and empowering to people of all backgrounds.

### 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.
- The [Microsoft DigiGirlz](#) program gives high school girls the chance to participate in hands-on computer and technology workshops, learn about careers in technology, and connect with Microsoft employees.
- 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, like [DEInamics](#), as part of our [#BuildFor2030](#) campaign.

## Our partnerships

- Women like [Grace Nshimiyumukiza](#) are learning digital skills through Microsoft programs dedicated to helping refugees in partnership with the United Nations High Commissioner for Refugees (UNHCR).
- Our strategic partnership with the [National Center for Women & Information Technology \(NCWIT\) Aspirations in Computing program](#) has empowered more than 13,000 high school girls to participate in the field of computer science.
- [Codess](#) is a community for female coders initiated by Microsoft, established to explore ways to promote gender diversity in the engineering field.

## Our support

- Microsoft has been a strong supporter of the [TECHNOLOchicas](#) program, both through financial support and internal engagement.
- In 2017, in Romania, Microsoft launched [Do IT, Girls!](#), a session of powerful talks providing insights and know-how around state-of-the-art technologies and the most discussed topics of the moment.

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

## SDG 6: Clean Water and Sanitization

### 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, replacing water in stressed areas where we operate, and playing a role in encouraging responsible water resource management. In India and Kenya, for example, we are working in line with target 6.a, which aims to expand international cooperation and capacity-building support to developing countries in water and sanitation related activities and programs, including water harvesting, desalination, **water efficiency**, and **wastewater treatment, recycling, and reuse technologies**.

#### HIGHLIGHT

In September 2020, we announced that **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.

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 nongovernmental organizations (NGOs) to ensure that more than 1.5 million people have access to clean drinking and sanitation water. We will focus this work in seven countries. We will start by partnering with [Water.org](https://www.water.org), a leading global nonprofit focused on underserved communities, to help people in Brazil, India, Indonesia, and Mexico. We will then expand this work with partners in China, Malaysia, and South Africa.

## Our programs

- Microsoft cofounded the [UN Water Resilience Coalition](#), an industry-driven initiative that aims to elevate global water stress to the top of the corporate agenda. This is part of our efforts to advocate for the preservation of the world's freshwater resources, including by serving on the steering committee of the [UN CEO Water Mandate](#), a collaborative effort of corporations and NGOs designed to assist companies in the development, implementation, and disclosure of corporate water stewardship practices and policies. Endorsers of the CEO Water Mandate commit to continuous progress against six core elements of stewardship (direct operations, supply chain and watershed management, collective action, public policy, community engagement, and transparency) and pledge to understand and manage their own water risks.
- Microsoft made a commitment to replace our water consumption in water-stressed areas where we have operations by 2030. Currently, we have water restoration projects underway in Arizona, [California](#), Nevada, Washington, and Wyoming, in the United States, and in [Chennai](#) and [Karnataka](#), in India.
- Microsoft has pioneered an industry standard for water conservation in corporate facilities by developing the [first net zero water campus](#), in Silicon Valley, California.

## Our partnerships

- The [Water Risk Monetizer](#) is a powerful tool developed by Ecolab in partnership with Microsoft and Trucost. The tool shows the costs of using water in every step of business operation, from manufacturing to delivery, and can give companies an idea of how those costs could increase if water becomes a limited resource.
- Microsoft partnered with the [Bonneville Environmental Foundation](#) to support projects that will increase flows and habitat conditions for migrating fish, remove fish passage barriers, and test new irrigation techniques that can improve the quality and quantity of fruit, while using less water.
- Dr. Yogesh Simmhan leads an interdisciplinary team at the [Indian Institute of Science](#) (a Microsoft AI for Earth grantee) that is using Microsoft data analytics and machine learning to identify inequities in water distribution in the city of Bengaluru, India, and to develop data-based recommendations to resolve them.
- WikiNet is developing a [machine learning solution on Microsoft Azure](#) that draws upon the accumulated knowledge from past toxic site cleanup efforts to provide automated recommendations for more efficient and effective remediation methods.
- [SunCulture](#), a grantee through the Microsoft Airband Initiative, has developed a solar-powered irrigation system so growers in Kenya can use water more efficiently and effectively.

Over the past year, we have committed Microsoft to becoming a carbon negative (SDG 13) and zero waste (SDG 12) company that is building a new planetary computing platform to transform the way we monitor, model, and ultimately manage Earth's natural systems (SDG 15). Our recent pledge to become water positive by 2030 adds a fourth pillar to the sustainability work at Microsoft. We are committed not only to setting ambitious goals for ourselves but also to using technology to better help our customers to do the same. [For more initiatives related to SDG 6](#), see our efforts to employ technology to help farmers use water more efficiently (SDG 2), install smart water meters in hospitals in South Africa (SDG 11), and use AI to track destructive algae blooms in Guatemala's Lake Atitlán (SDG 14).

## SDG 7: Affordable and Clean Energy

### 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 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 reduce 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 for 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.**

#### HIGHLIGHT

By 2025, Microsoft will shift to 100 percent supply of renewable energy, meaning that we will have power purchase agreements for green energy contracted for 100 percent of carbon emitting electricity consumed by all our datacenters, buildings, and campuses.

Since 2012, Microsoft has charged its business divisions a **fee for emissions associated with energy consumption** 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 to offset those emissions through renewable energy investments.

### Our programs

- We have ambitious goals to increase our **use of clean energy** over the next decade and now have projects in three continents—North America, Europe, and Asia—providing approximately 1.6 gigawatts of energy.
- The **Microsoft renewable energy strategy** includes the use of direct sourcing, power purchase agreements, and energy attribute certificates, through which we procure energy for facilities in several locations in the United States and around the world.
- **Grid-interactive uninterruptible power source (UPS) batteries** in Microsoft datacenters store energy at up to 90 percent efficiency, adding capacity and reducing demand on the grid.
- Although datacenter backup generators have historically run on diesel fuel, Microsoft is exploring ways to run more of those same **generators on less-carbon-intensive fuels or hydrogen fuel cells.**

## Our partnerships

- The [Community Solar Program](#) in Chicago, a partnership between Microsoft and Common Energy, supports clean energy and environmental justice. After it is completed, the project will prevent over 10 million pounds of carbon emissions per year, and part of the program will be aimed toward low-income residents who will benefit most from a 10 percent reduction in their electricity costs.
- We joined 20 organizations to launch [Solar Hands-On Instructional Network of Excellence](#) (SHINE), 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 750,000 homes and ultimately delivering affordable clean energy to more than 3.75 million people.
- [Veriown](#), a Microsoft Airband Initiative partner, is bringing internet-connected solar energy to communities throughout India that do not have access to a power grid. Through a single in-home device, users have access to electricity and reliable internet, in addition to entertainment, news, and education content.
- Microsoft and General Electric are developing a [wind project in Ireland](#) that will see 37 megawatts of renewable energy added to the national grid.

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



## SDG 9: Industry, Innovation and Infrastructure

### 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



The economic and social ramifications 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 information and communications technology, 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.

#### HIGHLIGHT

Through the [Microsoft Airband Initiative](#), we partner with telecom equipment makers, internet and energy access providers, and local entrepreneurs to make affordable broadband access a reality for unserved communities around the world. About half the global population remains unconnected to the internet. This lack of connectivity poses a barrier to success on other SDGs—such as quality education, economic growth, and reducing inequalities. Even in the United States, the Federal Communications Commission (FCC) estimates that 25 million people do not have access to broadband, including more than 19 million who live in rural communities. The Airband Initiative is based on the belief that high-speed broadband connection is a critical utility in today’s world, comparable to phone service and electricity, and that only by connecting everyone can we ensure inclusive growth and access to life-changing digital tools. Part of this work includes repurposing TV *white spaces*—the unused broadcasting frequencies between television channels—to help connect the “last mile.”

### Our programs

- Microsoft has a continuous commitment to [innovation and energy efficiency in our datacenter operations](#), which provides a model for developing sustainable infrastructure.
- The Microsoft Airband Initiative and its partners have taken various steps to address the broadband gap during the coronavirus, including 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.
- We also help to provide complimentary connectivity to [quarantine centers in India](#).

## Our partnerships

- By July 2022, within the United States, Microsoft partners are projected to cover at least 3 million people who do not have broadband access in rural areas. For example, our [partnership with the communities in Medina County](#) and rural broadband provider commZoom is expanding connectivity in a county where many households have no reliable internet option.
- With a mix of technologies, [AirJaldi](#), a Microsoft grant recipient, has created a series of hybrid networks to provide affordable and reliable internet to some of India's most underserved regions.
- [New Sun Road](#), a grantee through the Microsoft Airband Initiative, 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 Microsoft 4Afrika.
- Supported by a partnership with the Inter-American Development Bank, Microsoft is projected to [extend internet connectivity to at least 40 million unserved people](#) by July 2022.
- Italian coffee company Lavazza, energy and agricultural innovator ALO&Partners, and the Colombian nonprofit MAKAIYA teamed up to [connect rural, coffee-growing areas of Colombia](#) through the Microsoft Airband initiative. They delivered internet access via TV white space technology and have already connected two schools and five farms.
- As Targets 9.b and 9.5 clearly show, the achievement of SDG 9 requires the upgrading technological capabilities in all sectors. This goes beyond internet access. In April 2020, Microsoft launched the [Open Data Campaign](#) in order to help organizations of all sizes to 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 have set out the [principles that guide how we approach sharing data](#) and have committed to [developing 20 new collaborations](#) built around shared data by 2020. We are also [investing in essential assets that will make data sharing easier](#), including the necessary tools, frameworks, and templates.

## Our support

- Microsoft is one of the founding signatories and a lead supporter of the [Cybersecurity Tech Accord](#), the largest industry commitment to cybersecurity principles. Initiatives of the Cybersecurity Tech Accord have promoted best practices for industry to improve the security of digital products and services, in addition to providing resources—including free webinars and other materials on cyber hygiene and Internet of Things (IoT) security—for a consumer audience.

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

## SDG 10: Reduced Inequalities

### 10 REDUCED INEQUALITIES



This goal works in direct harmony with our mission to empower every person and every organization on the planet to achieve more. 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. Target 10.2 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 more than 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.

### HIGHLIGHT

In June 2020, we strengthened our **commitments to address racial injustice and inequity** for the Black and African-American community in the United States. Additionally, in the next five years, we will take important steps to address the needs of other communities, including the Hispanic and Latino 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 the past five 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 in the United States.
- **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** over the next three years 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.

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- **Strengthening our communities.** We believe it is important to empower communities in the United States toward a more equitable criminal justice system. In June 2020, Microsoft committed to strengthen and expand a preexisting justice reform initiative with a sustained, five-year, \$50 million effort. In 2019, we formally launched the **Microsoft Criminal Justice Reform Initiative**. This initiative invests in partnerships and programs working to drive reforms, with a focus on policing. Although we recognize that disparities exist throughout the system, we believe that by focusing on policing and by building positive relationships between police and communities, we can help keep people out of the criminal justice system and reduce the disparities within it.

## Our programs

- Through its 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 to improve the accuracy of real-time captions for people with hearing loss or deafness.
- Accessibility is a core company value at Microsoft—one that we embed in every one of our product lines. We provide resources on **hearing, vision, mobility, speech, mental health, and neurodiversity**. Through the **Microsoft Accessibility Evolution Model**, we are sharing our lessons and best practices with other organizations that are 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 with 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.
- 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 the **Inclusive Hiring** program. The Microsoft **Autism Hiring Program** is one example.

## Our partnerships

- Microsoft continues to be a leading funder and board member of **Code.org**, which works across the country and has made diversity in computer science a major priority. In 2019, 45 percent of the students in Code.org's K-12 classes were female, and 48 percent were minorities.
- Microsoft is a founding member of the **Partnership for Global LGBTI Equality (PGLE)**, a coalition of organizations committed to leveraging their individual and collective

advocacy to accelerate LGBTI equality and inclusion globally. The Partnership is supported by the Office of the United Nations High Commissioner for Human Rights (OHCHR) and is operated in collaboration with the World Economic Forum.

- Microsoft [TechSoup Courses](#) provide expert-led tech training for nonprofits and libraries.
- 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.
- 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.

## 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 US Supreme Court, which in June 2020, [ruled in favor of the Dreamers](#) and against the rescission of the DACA program.
- Microsoft supports the Standards of Conduct for Business on Tackling Discrimination against LGBTI people, which were published by the OHCHR.
- 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.

For more initiatives related to SDG 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 (SDG 1), promote quality education and digital skills programs for young people worldwide with a focus on underserved populations (SDG 4), empower young women and girls and prepare them for careers in STEM fields, while increasing transparency around our internal gender diversity efforts (SDG 5), extend internet connectivity to underserved parts of the world (SDG 9), and safeguard and strengthen governments and public institutions (SDG 16).

## SDG 11: Sustainable Cities and Communities

### 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 percent of global gross domestic product (GDP), yet they also account for about 70 percent 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).

#### HIGHLIGHT

Microsoft has opened smart cities 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 Smart Cities Technology 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, artificial intelligence, and the digital economy. Microsoft also brings to Houston "Accelerate," a new program designed to address economic recovery through skilling underserved communities and reskilling the many Americans impacted by the coronavirus pandemic.

### Our programs

- Innovative Microsoft solutions based on technologies, including the Internet of Things (IoT) and artificial intelligence 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 cultural heritage. Projects include helping to preserve and revitalize the [te reo Māori language](#) in New Zealand and bringing to life the historic [Mont-Saint-Michel relief map](#) in France using AI and mixed reality.

### Our partnerships

- The [Smart Cities for All Toolkit](#) is a tool to help city and agency leaders gauge level of progress and commitment to information and communications technology (ICT) accessibility and digital inclusion as part of being a smarter city, developed in a partnership between G3ict and Microsoft.
- [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.

- 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 designing and building the newest extension to its Greater Kuala Lumpur regional rail line in Microsoft Azure, reducing errors and design conflicts and improving collaboration efficiency by 35 percent.

## Our support

- To better inform policy decisions for reducing the urban heat island effect, a joint team led by the [World Resources Institute](#) is using machine learning resources provided by Microsoft AI for Earth to map changes in urban surface reflectivity over time.
- The Spanish city of Gandía 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.

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

## SDG 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 9.6 billion people by 2050, 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.

### HIGHLIGHT

Microsoft is committed to achieving “zero waste” in its operations, packaging, and products by 2030. To address our own waste creation, Microsoft will reduce nearly as much waste as we generate, while reusing, repurposing, or recycling our solid, compost, electronics, construction and demolition, and hazardous wastes. We will do this by building first-of-their-kind **Microsoft Circular Centers** to reuse and repurpose servers and hardware in our datacenters. We will also eliminate single-use plastics in our packaging, and we will use technology to improve our waste accounting. Additionally, we plan to make new investments in Closed Loop Partners' funds. Finally, we will enlist our employees to reduce their own waste footprints. By 2030, we will divert at least 90 percent of the solid waste headed to landfills and incineration from our campuses and datacenters, manufacture 100 percent recyclable Surface devices, use 100 percent recyclable packaging, and achieve, at a minimum, 75 percent diversion of construction and demolition waste for all projects.

### Our programs

- Microsoft is committed to designing products for longevity, recyclability, and product stewardship. **For programs in FY19**, we reduced the weight of primary packaging by 14.4 percent and decreased packaging-related greenhouse gas (GHG) emissions by 11.3 percent.
- 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 greenhouse gas emissions, primary energy consumption, and material composition for our products.
- The Microsoft Puget Sound campus has been **zero-waste certified** since 2016.
- To identify and prioritize areas of risk, we **mapped key raw materials** that travel through a complex and global upstream supply chain.



- All eligible Microsoft devices are registered to the [Electronic Product Environmental Assessment Tool](#) (EPEAT) 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.
- Our [paper-first design principles](#) reduce or eliminate our use of paper and plastics by reducing package documentation, providing more online resources, increasing sustainable sourcing, optimizing packaging size and weight, and encouraging recycling.

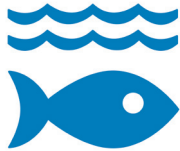
## Our partnerships

- With the help of Microsoft Azure and Microsoft partner Ombori, [H&M Group](#) reimagined its garment recycling program in the United States, with new “smart” recycle bins, aiming in 2020 to save 5 million pounds of clothing from landfills.

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

## SDG 14: Life Below Water

### 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.

#### HIGHLIGHT

AI for Earth grantee [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. One-third of fishing stocks in the world today are overfished—constituting 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. OceanMind combines diverse data points to determine a vessel’s movement behavior, and AI systems can identify suspicious activity that warrants investigation.

### Our partnerships

- 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](#), reducing the time required to annotate data and to answer key conservation questions.

### Our support

- [Dr. Dax Soule of City University of New York](#) is working with fellow AI for Earth grantee [Dr. Timothy Crone of Columbia University](#) to make data from the Ocean Observatories Initiative’s Cabled Array more accessible and usable to scientists and students around the globe by building a Microsoft Azure cloud--based system on Pangeo, an open-source platform for big data geoscience.
- [Research Zoologist Erin Moreland and other NOAA scientists](#) are training AI tools on Microsoft Azure to help monitor endangered Arctic animals, shaving years off the time it takes to get data into the right hands to protect animals.

- With [Project Atitlán](#), researchers are using AI to map and predict the occurrence of destructive algae blooms, generally caused by pollution, in Guatemala's Lake Atitlán. The project is enabled by a grant awarded by Microsoft and the National Geographic Society.

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

## SDG 15: Life on Land

### 15 LIFE ON LAND



Across the world, fragile ecosystems are under threat from human development and the effects of climate change. Today, nearly 1 million plant and animal species are threatened with 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.**

### 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 in 2020. We are mindful that sustainability issues have become no less urgent or important—even as the coronavirus pandemic upended daily life for almost all of us. Nature and the benefits that it provides to people are the foundation of our global economy, our culture, and the overall human experience.

We depend on clean air, water, food, medicine, energy, and building materials that nature provides, but these very ecosystems are threatened or already in decline. Maintaining nature for the benefit of current and future generations is one of humanity's greatest challenges. Deploying technology to support this global effort is one of ours.

The new Microsoft biodiversity initiative is multifaceted. Perhaps most importantly, it aims to put data and digital technology to work. We will do so notably through an ambitious program to aggregate and use environmental data from around the world and put it to work in a new **Planetary Computer**, a platform to aggregate and analyze this data. The Planetary Computer will help partners and customers leverage trillions of data points—collected in space, in the air, above ground, and under water—to protect the biodiversity and health of the world's ecosystems. It will provide insights into critical questions that scientists, conservation organizations, and businesses already ask every day, often with no easy way to obtain a locally relevant answer. The Planetary Computer will provide our AI for Earth community—more than 500 grants in 81 countries—access to the world's environmental datasets and a computing platform to analyze those datasets on.

## Our programs

- 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.

## Our partnerships

- Leveraging technology and direct funding, Microsoft AI For Earth grants support innovative approaches to conservation efforts. For example, geographical information systems specialist Ketty Adoch reinforces [conservation efforts in Uganda](#) by applying machine learning tools on Microsoft Azure to analyze aerial imagery of the landscape.
- Through an AI for Earth grant, [SilviaTerra](#) developed a high-resolution national forest inventory with timber, habitat, and carbon estimates for every acre in the continental United States. SilviaTerra is now working with Microsoft to demonstrate the viability and effectiveness of a data-driven, technology-enabled market for small, private landowner carbon.

## Our support

- With support from Microsoft, [NatureServe](#) applies machine learning to its biodiversity inventory data to model habitats for more than 2,600 at-risk species and to map high-priority biodiversity conservation areas.
- [Conservation Science Partners](#) uses Microsoft Azure Data Science Virtual Machines and machine learning tools to analyze satellite data to see how the forest cover and watershed across the western United States change from disturbance events. The organization also helps authorities and communities better manage and protect these resources.
- [SunCulture](#) combines local sensors and machine learning models on Microsoft Azure to produce detailed recommendations for farm management, based on weather predictions, soil conditions, and pest levels, helping smallholder farmers in Africa improve their lives and be better positioned to help feed the world.
- [Ag-Analytics](#) combines data from farm machinery sensors with weather and satellite imagery to develop machine learning models on Microsoft Azure for yield and crop cover forecasting, helping to make it economically feasible through insurance subsidies for farmers to implement conservation practices.

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

## SDG 17: Partnerships for the Goals

### 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 information and communication technology for capacity-building in least-developed nations.

#### 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 will also aim 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.

### Our partnerships

- Microsoft is a co-convenor of the **2030 Digital Fasttrack Studios (DFS)** in Geneva, Switzerland, alongside the UNESCO Geneva Liaison Office and the Graduate Institute Geneva's (IHEID) Centre for Trade and Economic Integration. The 2030 DFS convenes representatives from the United Nations agencies, permanent missions, academia, and civil society, in addition to industry experts, to identify policies and pragmatic opportunities for digital technologies to accelerate the Sustainable Development Goals.
- 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 Office of the United Nations High Commissioner for Human Rights (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.

## Our support

- French President Emmanuel Macron launched a global effort among governments, businesses, and civil society to protect and defend against threats to the digital infrastructure that runs our daily lives. We are proud to have been one of the pioneer signatories of the [Paris Call for Trust and Security in Cyberspace](#) in November 2018.
- In May 2019, Microsoft joined four other leading technology companies to sign the [Christchurch Call](#), which commits to nine steps that expand on the Global Internet Forum to Counter Terrorism (GIFCT) 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 [nine steps that they will take to address the abuse of technology](#) 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 Organisation for Economic Co-operation and Development's (OECD's) [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.

Positioned in the Microsoft Corporate, External, & Legal Affairs (CELA) group, the new United Nations Affairs team focuses on advancing Microsoft partnerships with the United Nations 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. For more information, please contact the Microsoft UN Affairs team:

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