Microsoft

Launching IGF Youth Track at EuroDIG

Our Digital Future
20 June 2022

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

Brad Smith, President and Vice-Chair
Microsoft Corporation

and

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

in

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

September 2019

(Updated: Paperback, September 2021)

What percentage of farms run by people under 40 in the EU?

What is the age of the average farmer in the developing world?

SDG 2:
Zero Hunger

" We believe digital technologies ...
can be part of the solution. "

As the population expands and diets change, farmers will need to increase food production by about 70 percent. The question is: How? We believe digital technologies and AI can be part of the solution.

Shown here are just a few examples of our programs, partnerships, and support that align with this SDG. View the full report: Microsoft and the United Nations Sustainable Development Goals

Highlight

- Microsoft Azure FarmBeats harnesses data and AI to help farmers cut costs, increase yields, and sustainably grow crops that are more resilient to climate change. FarmBeats collects data from multiple sources, such as sensors, drones, satellites, and tractors, and feeds it into cloud-based AI models that provide a detailed picture of conditions on the farm.

Our programs

- 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.

Our partnerships

- SunCulture, a grantee through the Microsoft Airband Initiative, has developed a solar-powered irrigation system that allows growers in Kenya to use water more efficiently and effectively.

Video

Microsoft - 4Afrika - Success Stories - Mobile enabled Solar power irrigation in Kenya

https://www.ifad.org/en/web/latest/-/blog/how-old-is-the-average-farmer-in-today-s-developing-world-

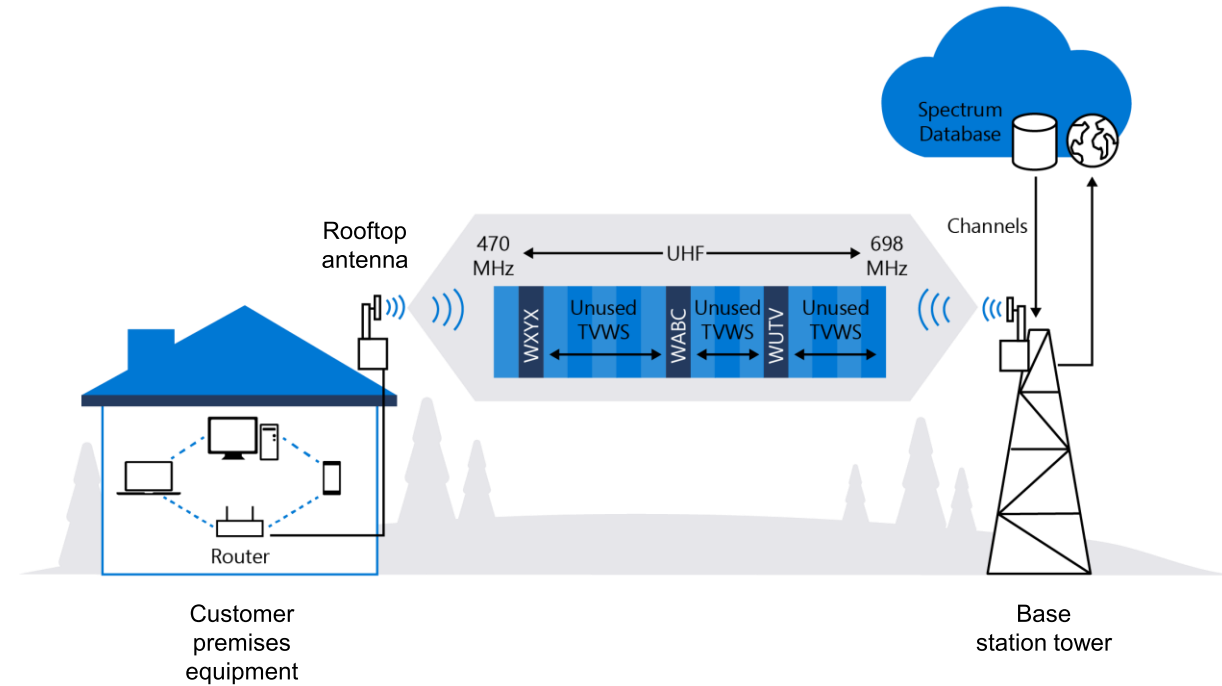Microsoft

Airband Initiative
Connecting the unconnected

Microsoft

TV White Space

TV White Space (TVWS) enables network operators to deploy cost-effective, affordable internet in underserved rural communities.

TVWS leverages unused spectrum in the traditional UHF and VHF television broadcast band. White space radios operate dynamically across this spectrum referencing a database to identify unused frequencies.

TVWS signal can travel over long distances and penetrate buildings and foliage better than other wireless communications technologies, making it an ideal technology for rural communities.

Rooftop antenna

Spectrum Database

Channels

470 MHz — UHF — 698 MHz

WXYX | Unused TVWS | WABC | Unused TVWS | WUTV | Unused TVWS

Router

Customer premises equipment

Base station tower

Multiple use cases:

- High speed internet
- WiFi access points
- Telemetry and internet of things (IoT)

Airband projects around the world

SDG 9:
Industry, Innovation and Infrastructure

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

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

In addition to increased connectivity, Microsoft supports a range of infrastructure projects that will strengthen economies and local communities.

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Highlight

- In line with our vision for human-centric connectivity, Microsoft launched the Airband Initiative in 2017 to eliminate the broadband gap in rural areas. We partner with internet and energy access providers, telecom equipment makers, nonprofits, and local entrepreneurs to advance digital equity—access to affordable internet, affordable devices, and digital skills—as a platform for empowerment and digital transformation across the world. Airband is active in Argentina, Bolivia, Colombia, Democratic Republic of the Congo, El Salvador, Ghana, Guatemala, Honduras, India, Kenya, Mexico, Nigeria, Paraguay, and South Africa.

Video

https://www.youtube.com/watch?v=ZPIRjVBaR1U

Our partnerships

- With Cal.net, we extend broadband connectivity and digital inclusion programming for rural and tribal communities in the Central Valley and rural Northern California.
- AirJaldi, a Microsoft Airband partner, created a series of hybrid networks to provide affordable and reliable internet to some of India's most underserved regions.
- New Sun Road, a Microsoft Airband partner, provides electricity, internet access, and education in remote environments.
- 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.

Microsoft

Microsoft empowers education institutions, educators, and students to enable inclusive, engaging, and immersive learning.

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Microsoft

Highlight

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

  Video: https://www.youtube.com/watch?v=PaocxM-YQL0

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

What percentage of youth are unemployed around the world?

What is percentage of youth are unemployed in the EU?

" Annually, we support more than 250 nonprofit partners around the world .... "
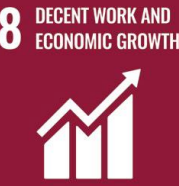
Microsoft employs more than 150,000 employees worldwide and is committed to providing skills training and economic opportunity in the communities where we operate.

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Microsoft and the United Nations Sustainable Development Goals

Highlight

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

This initiative is grounded in three areas of activity:

- The use of data to identify in-demand jobs and the skills needed to fill them.

- Free access to learning paths and content to help people develop the skills that these positions require.

- Low-cost certifications and free job-seeking tools to help people who develop these skills pursue new jobs.

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

Microsoft

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.

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Microsoft

Highlight

- In January 2020, we announced an ambitious 10-year plan to reduce and ultimately remove the Microsoft carbon footprint and extend our internal carbon tax to cover every part of our operations, including Scope 3. We forecast that in our first year we reduced Microsoft's carbon emissions by 6 percent, or roughly 730,000 metric tons.
- We are committed to transparency by subjecting the data in our annual sustainability report to third-party review.

Our programs

- We invested $129 million across funds and organizations innovating in carbon reduction, water management, and circular economy through our Climate Innovation Fund.
- We issued a Request for Proposals (RFP) to source our first carbon removals.
- We are assisting customers in decarbonizing their own operations and infrastructure and provided a solution—the Microsoft Cloud for Sustainability—to help them.

Our partnerships

- We are partnering with the International Finance Corporation to work with Microsoft suppliers in emerging markets to identify technical solutions reducing GHG emissions, provide implementation assistance, and offer financing solutions to help them make investments in more efficient and low-carbon operations.
- We joined forces with eight companies to establish, the Transform to Net Zero initiative for accelerating the transition to a net zero global economy.
- We are collaborating and investing alongside multiple energy operators and service providers across geographies as carbon capture and storage continues to gain momentum. Examples: Northern Lights, Climeworks, NCX, Twelve, and Rheaply.

Microsoft has set ambitious goals to eliminate its carbon footprint and transition to renewable energy sources to power its operations. We also invest in new technologies that show promise for delivering clean energy for a sustainable future.

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Microsoft

Highlight

- As one of the largest purchasers of renewable energy in the world, we are well on our way to reaching our goal of 100 percent renewable energy by 2025. Microsoft recently announced its own 100/100/0 commitment. By 2030, Microsoft will have 100 percent of our electricity consumption, 100 percent of the time, matched by zero carbon energy purchases.

Our programs

- 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.
- We are enabling more granular measurement with data called Locational Marginal Emissions (LMEs). We partnered with REsurety to create an LME tool on Azure that calculates the decarbonization impact of our renewable energy supply with greater accuracy.
- Our new Silicon Valley campus is designated Zero Carbon Ready, and we are continuing to finalize documentation for our Puget Sound campus.

Our partnerships

- Supporting our goal of 100 percent renewable energy by 2025, we have executed over 35 new power purchase agreements across the globe.
- In 2020, we announced the availability of the first commercial, 24/7, hourly energy-matching solution with our partner Vattenfall, which we will use to monitor energy use and zero carbon energy matching for our Swedish datacenters.
- We partnered with SSE Airtricity in Ireland to install and manage internet-connected solar panels, via Azure IoT to Microsoft Azure.

SDG 6:
Clean Water and Sanitation

" **By 2030 Microsoft will replenish more water than it consumes ....** "

Microsoft is committed to increasing our own water efficiencies, replenishing water in stressed areas where we operate, and playing a role in encouraging responsible water resource management.

Shown here are just a few examples of our programs, partnerships, and support that align with this SDG. View the full report: Microsoft and the United Nations Sustainable Development Goals

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.

- We are partnering with non-governmental organizations (NGOs) to ensure that more than 1.5 million people gain access to clean drinking and sanitation water. Together with Water.org, a leading global nonprofit focused on underserved communities, we have helped empower an estimated 160,000 people with access to safe water or sanitation.

Our programs

- Microsoft is a founding member of the Water Resilience Coalition, launched in 2020 as an initiative of the United Nations Global Compact CEO Water Mandate.

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

Our partnerships

- The Water Risk Monetizer and Smart Water Navigator are powerful tools developed by Ecolab in partnership with Microsoft and S&P Trucost.

- We worked with community organizations and partners to establish over 20 water projects around the world—including several projects alongside our new sustainable datacenter region in Arizona.

Microsoft

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.

Shown here are just a few examples of our programs, partnerships and support that align with this SDG. View the full report: Microsoft and the United Nations Sustainable Development Goals

Microsoft

Highlight

- Microsoft is committed to achieving zero waste in its operations, packaging, and products by 2030. Microsoft's Puget Sound campus has been zero waste certified since 2016 and we also achieved zero waste certification at our datacenters in Dublin, Ireland; Boydton, Virginia; San Antonio, Texas; and Columbia, Washington.
- Given the number of components coming through our datacenters, in 2020 we committed to reuse 90 percent of cloud hardware by 2025 and launched our new Microsoft Cloud Responsible Packaging Goals for 2025.

Our programs

- Through our $1 billion Climate Innovation Fund, we have directly invested in several companies to help them accelerate and scale their solutions, including Rheaply and Closed Loop Partners.
- We are building first-of-their- kind Microsoft Circular Centers to reuse and repurpose servers and hardware in our datacenters.
- Microsoft performs life cycle assessments to calculate the environmental impact of our hardware products.

Our partnerships

- We have partnered with The Recycling Partnership to build two recycling units at an existing solid waste drop-off location in Mecklenburg County, Virginia, where residential recycling services are currently limited.
- We are partnering with suppliers to see how plastic waste recovered from our oceans, waterways, and beaches can be processed and used in consumer products.

SDG 15:
Life on Land

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

Microsoft believes that we must act now—and that technology can help to sustainably manage forests, measure progress, and halt biodiversity loss.

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Microsoft

Highlight

- In April 2020, we announced our biodiversity initiative, focused on preserving and protecting the biodiversity and health of the world's ecosystems, a pillar in our sustainability initiatives launched that year.
- We have now launched the Planetary Computer, with more than 20 petabytes of environmental science data from dozens of sources, including Sentinel-2, Landsat 8, and several NOAA programs, which are now freely available for use by the conservation community. Some examples of applications from our global partners include CarbonPlan's forest risk mapping tool and Development Seed's AI-accelerated land mapping platform.

Our programs

- The Microsoft AI for Earth program has provided more than 850 grants to organizations working in more than 120 countries around the world working on game-changing environmental innovations, including 23 strategic partnerships with key platforms using Microsoft Azure to provide conservation and sustainability services.
- With the Nature Conservancy and the National Fish and Wildlife Federation, we have invested in more than 15,000 acres of land protection projects.

Our partnerships

- Microsoft partnered with Impact Observatory and Esri to produce a high-resolution global land cover map, available through both Esri's Living Atlas of the World and Microsoft's Planetary Computer.
- Through an AI for Earth grant, NCX, formerly SilviaTerra, developed a high-resolution national forest inventory with timber, habitat, and carbon estimates for every acre in the continental United States.

Thank you

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See more

http://www.microsoft.com/en-us/corporate-responsibility/un-sustainable-development-goals