

Microsoft datacenters in South Korea

Datacenters provide the physical infrastructure for the technology we depend on at work and in our personal lives

A datacenter building houses thousands of computer servers and data storage devices connected to the internet



These buildings are similar in size and appearance to a distribution warehouse.



Microsoft aims to build datacenters that are best in class in performance, reliability, safety, aesthetics, and sustainability.



Compared to many other industrial facilities, datacenters do not create significant noise pollution or have a significant impact on traffic flow or congestion.



Microsoft operates more than 300 datacenters in over 34 countries.

Datacenters are part of everyday life

Whenever you open an app on your phone, join a virtual classroom or meeting, snap and save photos, or play a game with your friends online, you are using a datacenter.



Email



Online shopping



Mobile apps



Online banking



File storage



Streaming videos

[Take a virtual tour of a datacenter](#)



Microsoft datacenters create local operations and construction jobs

Microsoft datacenters in South Korea currently employ **46 people**.

Building these facilities required more than **2.8 million work hours** across **379 annual construction roles**.

By the end of 2026, we project **76 full-time employees and contractors** will work across all operational facilities.

Datacenter operations

- Campus management
- People management
- Learning and development
- IT operations
- Mechanical engineers
- Electrical engineers
- Security contractors
- Building maintenance
- Critical environments

Construction jobs

- Electricians
- Plumbers and pipefitters
- Carpenters
- Structural iron and steel workers
- Concrete workers
- Earth movers

[Find Microsoft jobs in your community](#) >

Taxes from Microsoft datacenter operations represent important revenue for national, regional, and local governments

Microsoft datacenters represent a capital-intensive investment and long-term commitment to the community. This investment grows the commercial property tax base, increasing revenue for municipal services that benefit local citizens.

Examples of country, provincial, and local taxes that support cities, municipal services, schools, and colleges include:



Property taxes

Collected annually once land is purchased.



Indirect taxes

From construction and operation expenses. Examples include VAT, GST, and sales tax.



Income taxes

From construction and operations workers.

Published April 2023. This document shares information we have as of the publication date, and it includes estimated information and projections. The information is provided as is and may change without notice.

Microsoft is investing in local priorities in South Korea

Investing in people of all ages through local skill-building programs

Microsoft and JUMP, a nonprofit that connects underprivileged youth, college students, and community mentors to provide fair educational opportunity, have partnered to launch a digital empowerment program for 2,300 vocational high school students, providing AI and cloud skilling, mentorship, and customized support for IT career development. The program aims to connect participants with social mentors, such as college students, to help them develop their competencies and achieve their career goals.



Partnering with environmental sustainability programs for local impact

Bringing women into cybersecurity

Microsoft provided funding to support the Women@Security program in partnership with WISSET. The program currently helps two groups: women enrolled as undergraduates, and women who are returning to the workforce after starting families. Students in the program will receive Microsoft-based security training and job placement programs in this field after completion.



[Learn more about WISSET](#) >

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Microsoft global commitments

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CARBON

Microsoft pledged to become carbon negative by 2030 and to remove historical carbon since its 1975 founding by 2050.

Microsoft will reduce Scope 1 and 2 emissions to near zero through energy efficiency work and by reaching **100 percent renewable energy coverage by 2025.**

Microsoft has also committed by 2030 to:

- Be free of diesel.
- Match 100 percent of electricity consumption, 100 percent of the time, with zero-carbon energy purchases.
- Reduce our Scope 3 emissions by more than half.

WATER

In 2020, Microsoft pledged to be water positive for our direct operations by 2030.

Through this commitment, we will replenish the water consumed by datacenter operations in water-stressed regions. We have also committed to **reduce water waste by 95 percent in our datacenter operations by 2024.**

WASTE

In 2020, Microsoft announced enhanced goals for waste reduction, circular supply chains, and zero-waste certification. We are working towards our goal of **90 percent reuse and recycle of servers and components by 2025** through our first-of-a-kind Microsoft Circular Centers.

Microsoft is using **circular economy** principles in our datacenters by implementing reuse and comprehensive recycling programs.

By 2030, Microsoft datacenters will be zero waste



ECOSYSTEMS

Microsoft has committed to **protecting more land than we use for direct operations by 2025.**

Microsoft is committed to community investment, pollution remediation, and fair economic inclusion initiatives, as well as investment in clean energy, broadband access, and water replenishment initiatives.

South Korea

Datacenter operations sustainability investments

We're committed to providing a sustainable Microsoft Cloud, so we wanted to share information about how we take responsibility for our datacenter operations.

For Microsoft datacenters located in South Korea we have included local sustainability investments and datapoints in support of meeting and exceeding our commitments around carbon, water, waste, and ecosystems.

CARBON

1.12

Design power usage effectiveness (PUE)

New datacenters not yet in operation

We've committed to have **100% renewable energy coverage globally by 2025**

In South Korea, we are transitioning from petroleum-based diesel to power our backup generators to a **renewable biofuel blend that reduces net carbon emissions.**

The Microsoft datacenters in South Korea renewed **LEED Gold certification.**

[Learn about PUE >](#)

WATER

0.14 $\frac{\text{L}}{\text{kWh}}$

Water usage effectiveness (WUE)

January 2022–December 2022

Microsoft uses **outdoor air with direct evaporative cooling** at our South Korean datacenters.

This method of cooling uses **outside air and zero water** when temperatures are below 29.4 degrees Celsius, **reducing cooling water use to less than 10 percent of the year.**

[Learn about WUE >](#)

WASTE

Globally, Microsoft datacenters **reuse 78 percent** of our end-of-life assets and components. **The remaining 22 percent of materials are recycled.**

Microsoft Circular Centers can process up to

3,000

servers per month for reuse.

It takes five to six years from when a datacenter is operational to generate reusable assets. Once servers are ready to be decommissioned in this region, Microsoft is planning to open a **Circular Center in Korea.**

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