



# Reducing data centers' climate footprint, while maximizing the handprint

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A perspective view of a server room aisle. The aisle is lined with server racks on both sides. The racks have perforated doors and are illuminated with blue and green lights. A person is standing at the end of the aisle, looking at a device. The floor has a grid pattern and is lit with blue light strips along the edges of the aisle.

**What is a climate handprint?**

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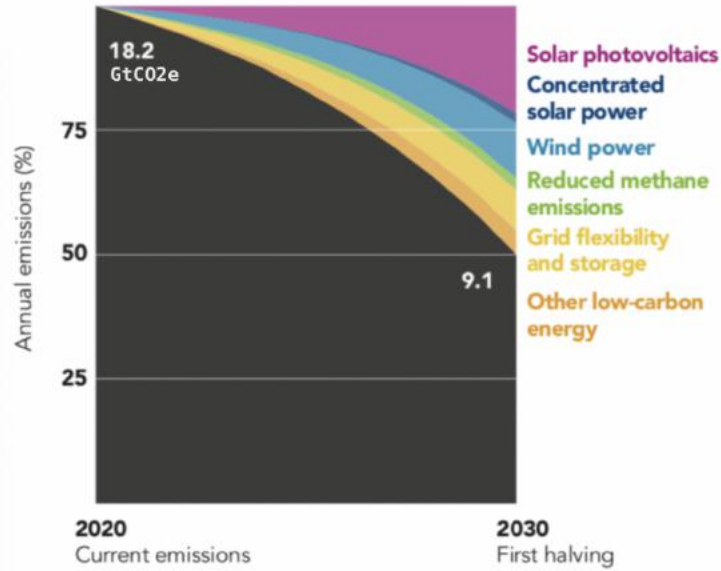


”By 2030 ICT could save ten times the amount of climate emissions than it generates.”

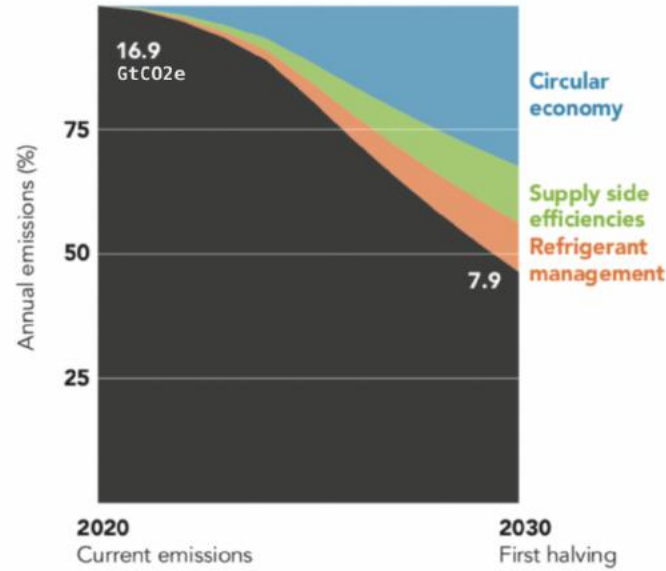
— SMARTer2030, GeSI & Accenture Strategy (2015)

ICT causes 2 % of the worlds emissions but can help to reduce the other 98 %.

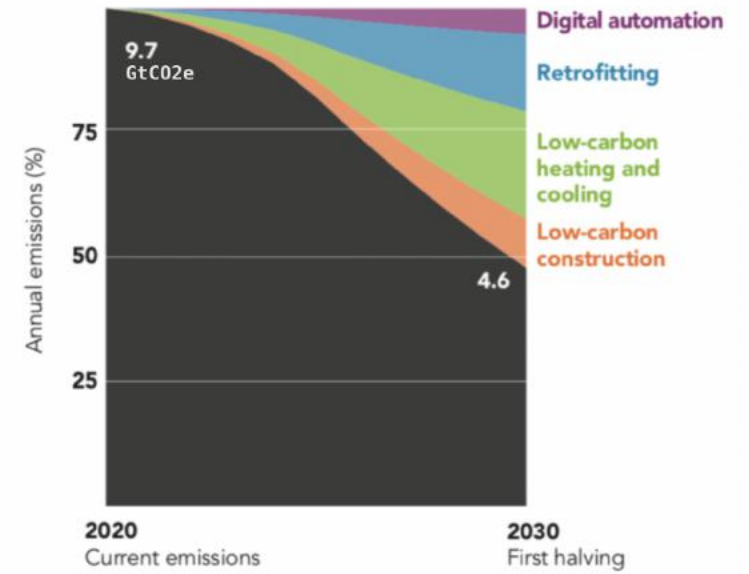
## ENERGY SUPPLY



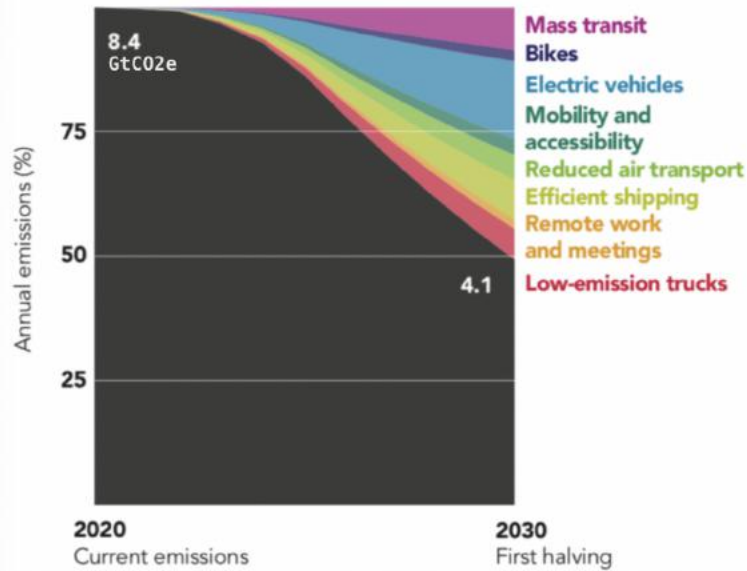
## INDUSTRY



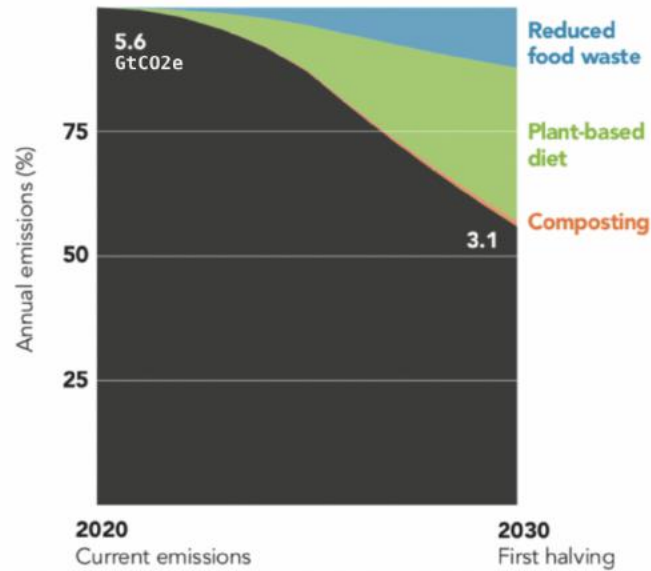
## BUILDINGS



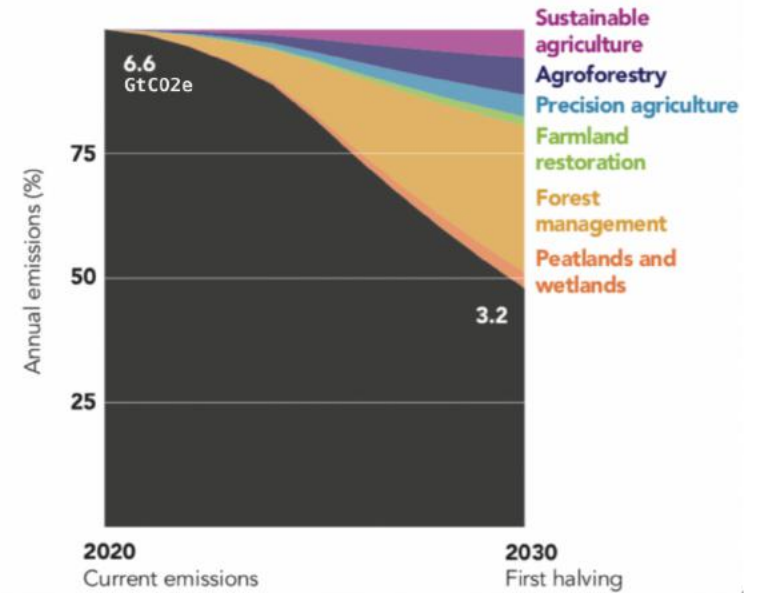
## TRANSPORT



## FOOD CONSUMPTION



## AGRICULTURE AND FORESTRY





# Climate footprint of datacenters

A perspective view of a server aisle in a data center. The aisle is lined with server racks on both sides, illuminated by blue and green lights. A person is silhouetted at the end of the aisle, looking at a device. The floor has a grid pattern and is lit with blue light.

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From design to end-of-life and everything in between, we work to improve the environmental impact of the products you purchase. As part of that process, we estimate the specific impacts throughout the lifecycle. This includes the contributions from materials, manufacturing, distribution, use and end-of-life management.



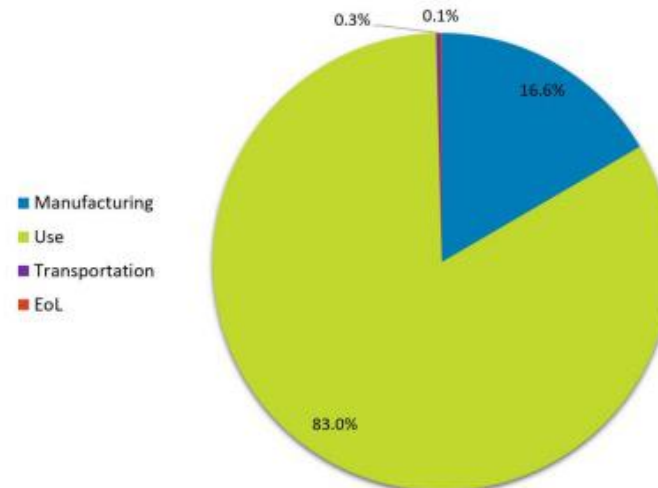
This product's estimated carbon footprint:

## 7730 kgCO<sub>2</sub>e \*

Estimated impact by lifecycle stage:

Dell uses PAIA (Product Attribute to Impact Algorithm) to perform product carbon footprints. PAIA is a streamlined LCA tool developed by [MIT's Materials System Laboratory](#). It takes into consideration important attributes of the product which can be correlated to activities in order to calculate the product carbon footprint.

Due to high configurability of servers, the information provided here was calculated based on the products highest selling configuration (see assumptions on page 2).



Est. product carbon footprint, page 1



# Energy use

Energy efficiency  
Utilization  
Energy source

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# Quiz: how much has it increased?

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**+6%**

Energy use  
2010-2018

**+550%**

Amount of data  
2010-2018

AT&T



# Utilization

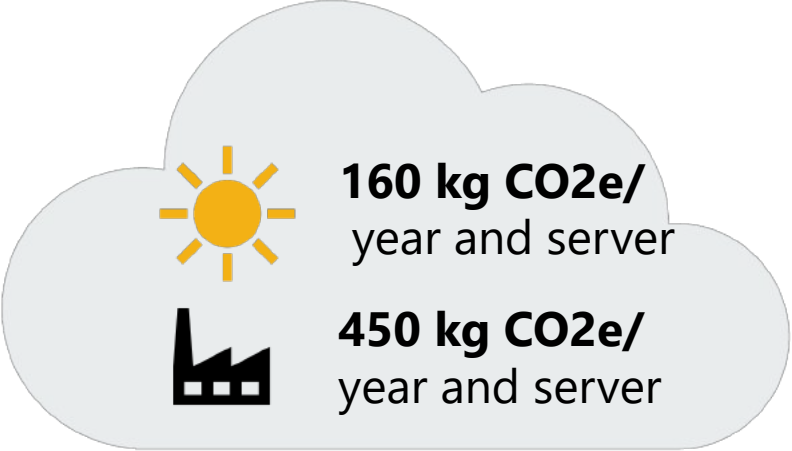
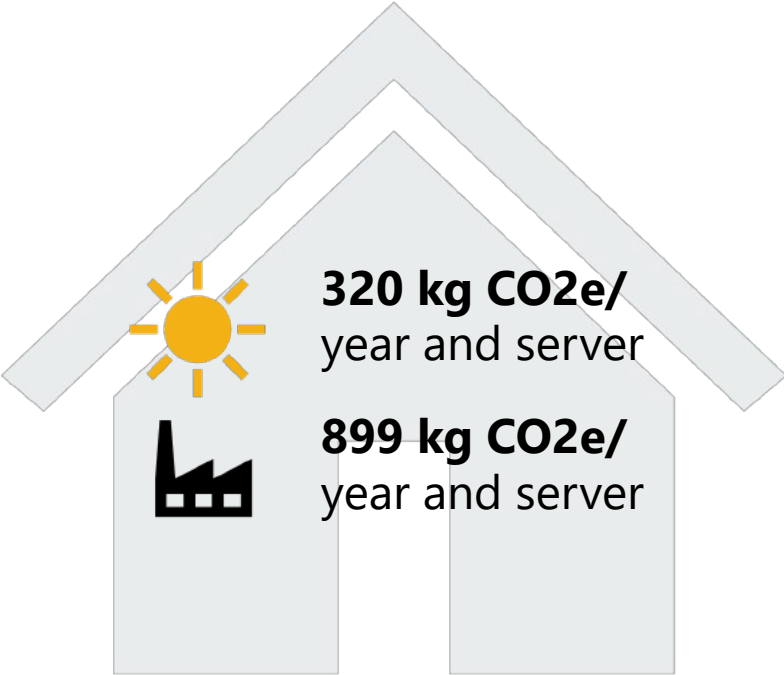
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Washing one full machine instead of two half full saves 67 % of energy

# On-prem vs cloud / Fossils vs renewables

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A photograph of a server room aisle. The aisle is lined with server racks on both sides. The racks have perforated doors and are illuminated from within, creating a blue and green glow. In the distance, a person is standing in the aisle, looking at a device. The floor is a light-colored metal grating. The overall atmosphere is clean, modern, and technological.

# Sustainable hardware

Leverage  
Smart procurement criteria

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Responsible Business Alliance

Advancing Sustainability Globally

“We’re looking to the Nordic market to get the road map where the industry is going to take us.”

*Deborah Albers, Vice president Operations  
RBA*

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Responsible Business Alliance

Advancing Sustainability Globally

**190+**

Members

**6 million+**

Direct employees

**\$7.7 trillion**

Global revenue



Code of Conduct and  
audit program

**2016**

Atea became a member as the  
first reseller

**”A rising tide lifts all boats”**

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# How to set effective sustainability criteria

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1

**Choose manufacturers that are members in the Responsible Business Alliance**

At least on the level Regular member

2

**Buy certified equipment**

Such as TCO Certified

3

**Include take back**

Make sure you have a plan for recovering the assets already at the point of purchase



[See our guide to sustainable procurement of IT for more tips](#)







**Do good, do well!**

Thank you!

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