

# OPEN POSSIBILITIES.

## Reduce the Carbon Footprint of Your Cloud-Native Workloads



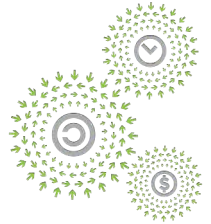
NOVEMBER 9-10, 2021

# Reduce the Carbon Footprint of Your Cloud-Native Workloads

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**Ynema Mangum**, Director Product Management, Sesame by ITRenew

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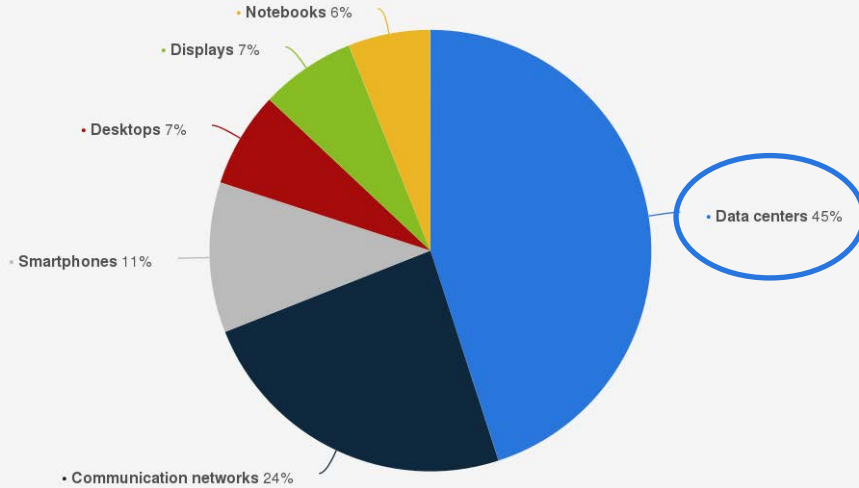


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PLATINUM™



# Data Center Carbon Footprint

Information and communications technology sector carbon footprint share 2020, by product/segment



Source  
GEC  
© Statista 2021

Additional Information:  
Worldwide, 2020

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As data moves to the cloud, data centers now lead the carbon footprint share.



In 2015, User devices was #1, followed by networks, then data centers.

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# Sesame foundation components

## COMPUTE



Compute is at the heart of every data center. Now you can put hyperscale compute (including GPU options) to work for you for **half the TCO AND eliminate the carbon tax** associated with newly assembled equipment.

## STORAGE



Storage is essential for data growth, seasonal upticks, and business expansion. Converged and Hyperconverged storage is flexible, whether **local** or in **HDD or NVMe storage expanders**.

## NETWORKING



The network is critical in your infrastructure. **Dual 25G node** connectivity standard, with **100G** cross-rack uplinks. Scalable to **1000s of nodes** across dozens racks.

## INFRASTRUCTURE

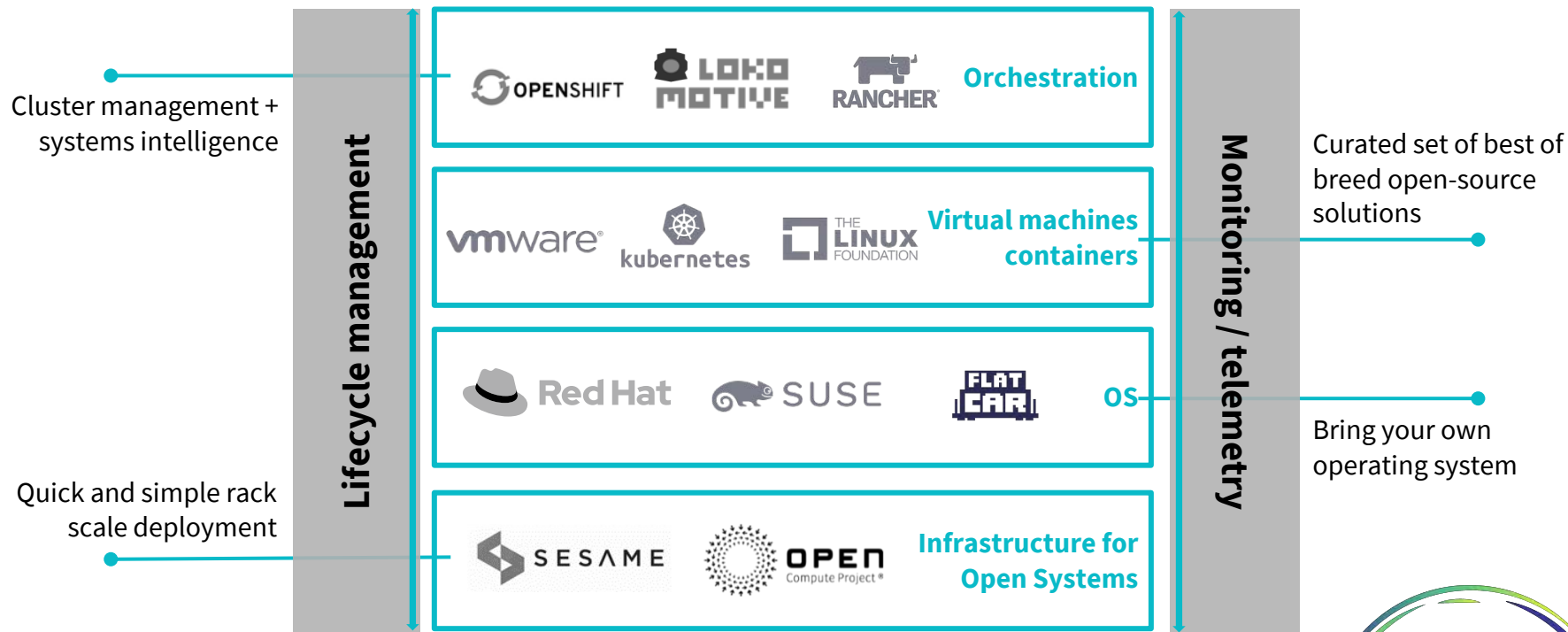


**Racks, power, and management** run the world. Our hyperscaler infrastructure management is ready for OS deployment and system monitoring, orchestration, and network virtualization.

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# The Open Cloud-Native Stack for Renewable Infrastructure



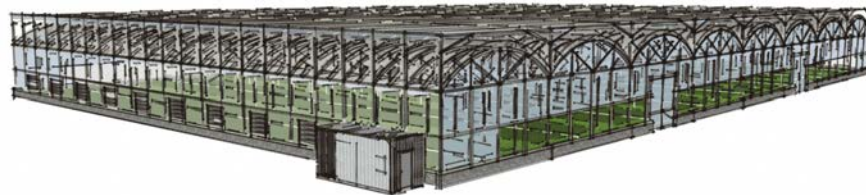
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# CASE STUDY: deployed today in Amsterdam



...FOR GREENHOUSES



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# CASE STUDY: Blockheating

Green data centers require innovative partners



“WE’RE SAVING **20 – 30% ON AIR-CONDITIONING COSTS** BY GOING WITH OUR DECENTRALIZED APPROACH. **CONSTRUCTION TIMES ARE ALSO SIGNIFICANTLY REDUCED.** THOSE BENEFITS ALLOW US TO BE **SUSTAINABLE AND ECONOMICALLY COMPETITIVE AT THE SAME TIME.**”



“WE CHOSE ITRENEW FOR THEIR **SUSTAINABILITY CREDENTIALS, SUPERIOR TECHNOLOGY, ‘OPEN COMPUTE’ FLEXIBILITY,** AND THE SKILL OF THEIR ENGINEERING TEAM TO DELIVER ON OUR REQUIREMENTS AT SCALE—ALL OF WHICH HAVE **ENABLED US TO ACCELERATE OUR DEVELOPMENT.**”

JEROEN BURKS, CEO  
BLOCKHEATING

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# Tipping Point

“The current model for how to process and store data is broken. ‘Business as usual’ has met its limits and new thinking and leadership is required.”

“Given the current global climate **it’s more important than ever that business adopt sustainable, circular models that create value by making use of the resources already ‘in-play.’** But you have to also do this **without compromise to performance or quality, and at the best economics.**”



David Rowe, Founder CEO  
Hydro66



Oliver Menzel, CEO  
maincubes

“As concerns over the data center’s impact on global climate change become more acute, it becomes increasingly clear that the future of IT will center on sustainability and responsible digitization as a core pillar.”

“In curbing greenhouse gas emissions by up to twenty-five percent each year, OCP solutions are significantly more sustainable than vanity brand hardware.”

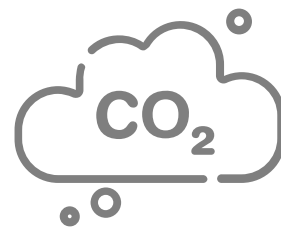
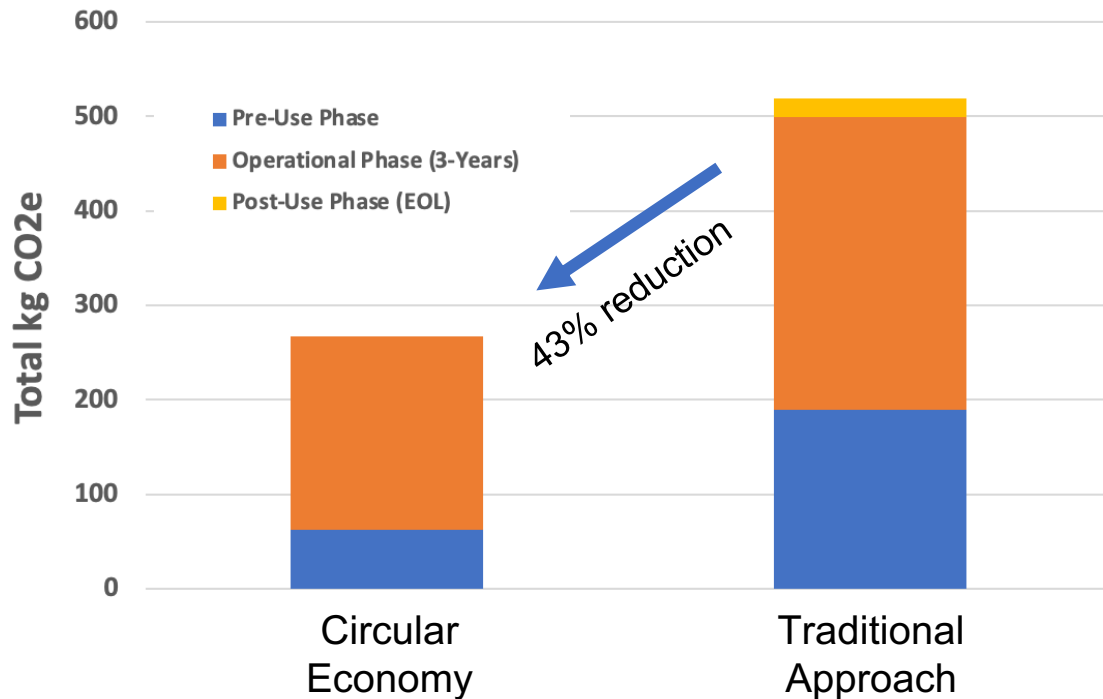


Daniel Njuguna, CEO  
Atlancis

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# The Power of Circular Economy



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# Looking at the full value chain



## PRE-USE PHASE

CO2e and GHG from mining to  
manufacturing to deployment

Embodied Energy/ Scope 3 emissions



## OPERATIONAL PHASE

Electricity to run IT equipment

Scope 1 emissions



## POST-USE PHASE

Recycling and EOL Processes

Embodied Energy/Scope 3 emissions

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# Make sustainability your competitive advantage

Achieve your decarbonization goals faster, without compromising quality, reliability or performance



**Zero waste.**  
**Zero carbon.**  
**Zero compromise.**

Sesame has designed eWaste and CO<sub>2</sub> out of new hardware. Our circular economic model reduces your costs and carbon footprint.

## ENVIRONMENTAL



With Sesame, you can avoid up to 75%+ of the carbon emissions tied to legacy IT manufacturing.

Materials used to build our systems are sustainably-sourced.

# 75%

CO<sub>2</sub> tied to IT mfg avoided

+

## FINANCIAL



Think of Sesame as the certified, pre-owned BMW of IT. High-density designs deliver significantly better performance, efficiency compute and storage economics.

# 50%

Higher density & lower TCO

+

## OPERATIONAL



Sesame is built on open architecture, which beats legacy solutions on compute density, operational efficiency and energy consumption.

# 33%

more energy efficient

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# Sesame by ITRenew

- Designed for your most demanding workloads
- Tuned to your specific requirements
- Ready to plug-and-play



## BARE-METAL SOLUTIONS

Engineered, tested,  
supported as a single stack  
Roll it in, turn it on

## FLEXIBLE SCALE & CAPACITY

6 to 96 nodes per rack  
600+ nodes per cluster  
25/100G networking

## PURPOSE-BUILT CONFIGURATIONS

Open Systems (Disaggregated)  
Converged (HCI)  
AI/ML

## STANDARD RACK SIZE & POWER

No data center redesign  
Leverage existing power

TECHNOLOGY  
PARTNERS





# Call to Action



→ **Download ITRenew's Circularity Report:** <https://www.itrenew.com/resources/the-global-circular-data-industry/>

→ **Read the full Blockheating Story:** <https://www.itrenew.com/resources/blockheating-customer-story/>

→ **Learn more about Sesame by ITRenew solutions:** <https://www.itrenew.com/sesame/> > [ymangum@itrenew.com](mailto:ymangum@itrenew.com)

→ **Watch Hardware for Kubernetes Webinar:** <https://www.cncf.io/online-programs/hardware-for-kubernetes-peeling-back-the-layers/>

→ **Explore ITRenew on OCP Marketplace:** <https://www.opencompute.org/sustainability-solutions>

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Thank you!



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