OPEN POSSIBILITIES.

Qarnot and ITRenew Collaboration on OCP Ready Heat **Recovery System Solution**





Qarnot and ITRenew Collaboration on OCP Ready Heat **Recovery System Solution**

Clément Pellegrini CTO



Jean-Jacques Chanut
Mechanical engineer



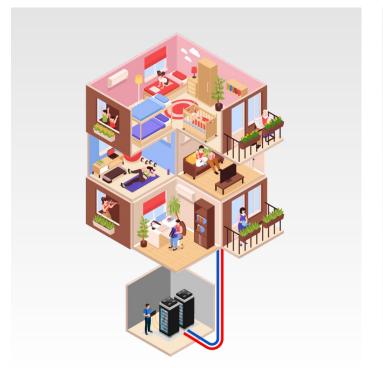


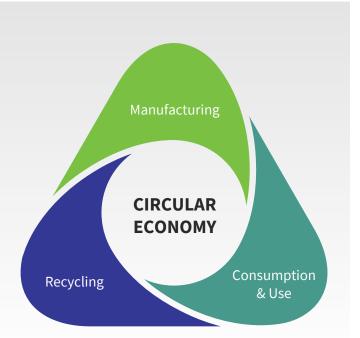








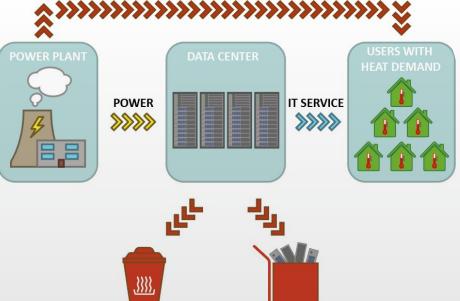






Standard Data center waste

POWER/HEAT



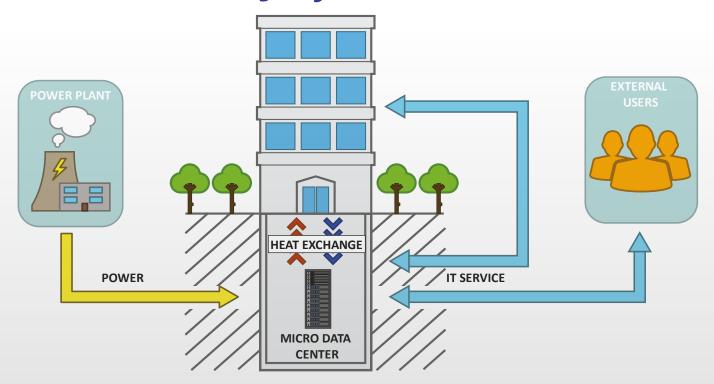
DECLASSED IT

WASTED HEAT





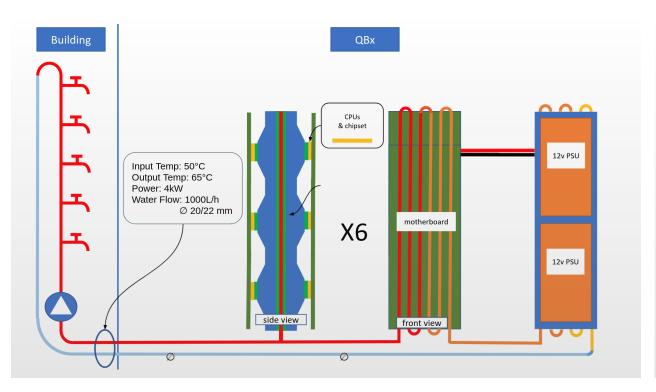
Heat recovery system

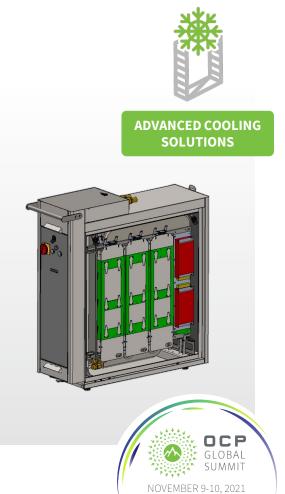




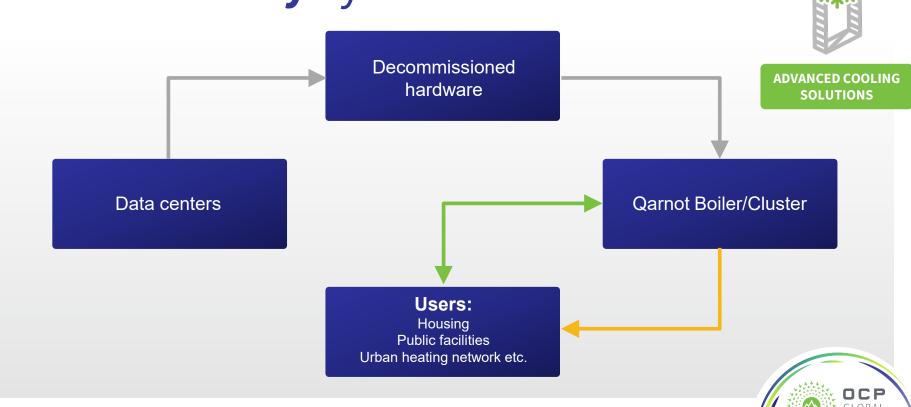


Qarnot Boiler how it works?





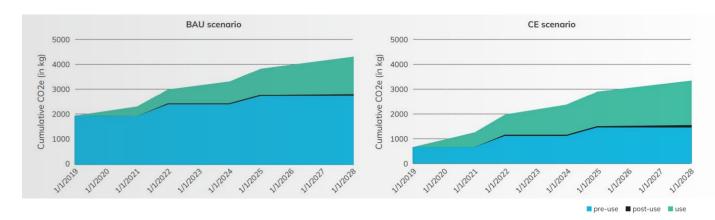
Sustainability cycle



Hardware sustainability gain

Global Warming Potential

Em	ission in phase	Share in total LCA emission
657	Kg CO ₂	77%
188	Kg CO ₂	22%
11	Kg CO ₂	1%
856	Kg CO ₂	
	657 188 11	188 Kg CO ₂ 11 Kg CO ₂





ADVANCED COOLING SOLUTIONS





Cloud computing sustainability gain



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Start 2021/04/28 17:41

Duration 5h12m

Total carbon footprint CO2 523 g

Carbon footprint Carbon footprint

5.45 kWh

1.05 kW

4.32 kWh

95 %

91 %

523 g

323 g

156 km

1.23

Carbon Facts

Energy

Total consumed Average power

Renewable energy rate

Avg Energy Reuse Factor

Total CO₂ footprint

Equiv. (plane / flight)

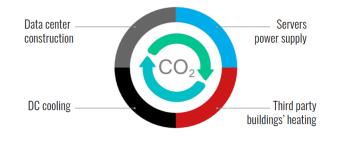
Primary CO₂ per kWh

Saved energy

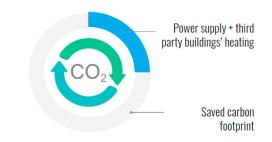
Avg PUE

Saved CO₂

Carbon



QB Energy Balance Carbon footprint





Conclusion







Our partnership has enabled us to develop a more economically, sustainably and technically efficient solution.

- Sustainably sourced servers
- Reduce eWaste and CO2
- Up to 50% lower total cost
- Highest energy efficiency
- No wasted heat
- No new DC construction
- Retrieve money from heat/installation sponsoring



Product/Facility Info



Market place link: https://www.opencompute.org/sustainability-solutions

ADVANCED COOLING SOLUTIONS





Call to Action

> Availability: Current 2022 → More about Qarnot: https://garnot.com/ Clément Pellegrini: clement@garnot.com **Jean-Jacques Chanut:** Learn more about Sesame by ITRenew solutions: https://www.itrenew.com/sesame/ jean-jacques.chanut@itrenew.com Follow sustainability track: https://www.opencompute.org/projects/sustainability-initiative → Get involved in cooling facilities: https://www.opencompute.org/projects/advanced-cooling-facilities-incubation



Thank You!

