







**T** Once again, Paris is the world center of sustainability policy and debate. The French capital city recently hosted 40 heads of state to discuss a major shake-up of the World Bank as a response to the climate emergency, following the 2015 Paris Agreement on Climate Change.

For CXOs, the discussions and actions reshape business and technology leadership and reinforce the importance of a sustainable technology strategy. The most recent Paris meeting included discussions on new fossil fuel taxes, with proposals likely to be

prominent at this November's U.N. Climate Change Conference (COP28).

Fossil fuel taxation plays a big role in technology, requiring CXOs to analyze and measure the impact on datacenter providers, software-as-a-service applications and the public cloud.

In addition, increased fossil fuel taxation will change travel demands and increase reliance on technology. The physical estate of enterprise organizations is also likely to be impacted, prompting CXOs to optimize office, retail and manufacturing estates.

The Paris discussions reflect what is already impacting CXOs. The fifth annual Enterprise Cloud Index (ECI) report commissioned by Nutanix earlier this year found that the climate emergency was a key topic for leaders taking part in this critical research into cloud computing usage and strategy.

Sustainability was more important to 92% of organizations than it was one year ago, the 2023 study found. Respondents said this was due to increases in:

- Environmental, social and governance plans (63%)

- Disruptions to the global supply chain for 59%,
- Response to customer demands (48%)

Environmental regulations are already heading towards CXOs, says John Frey, chief technologist of sustainable transformation at HPE.

“At some point this year, the SEC will finally release their rules on carbon reporting, and there are similar rules in the EU,” Frey said. “If you are a non-manufacturing company, often your technology footprint can be the biggest part of your carbon footprint.”





## Clean and good

Whether in response to regulations or sustainability ambitions, reducing the impact of business on the natural environment is advantageous to enterprise concerns. IDC finds that the number one reason for making a business more sustainable is to attract institutional investors, followed by attracting customers, and then attracting and retaining talent in a tight labor market.

But meeting this new demand is not easy for CXOs. The ECI report finds that 86% of CXOs find meeting corporate sustainability goals a challenge, with 36%

admitting it's a significant challenge. But despite high energy prices and rising inflation, less than half (46%) of organizations point to energy costs as a driver for sustainability initiatives, and only 35% cite regulatory demands.

Environmental, social and governance (ESG) planning is new to most enterprises, Frey said. This means ESG will mean different things to different members of an organization, adding to the challenge.



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“Whenever there is a change of mindset needed, there are different domains involved and they don't always know each other,” Frey said. “So it is important to meet each other and teach the language of the role.”

“Part of it is where you or your company is based, but it is a topic that is of great importance,” he added, noting that the CXO community must grapple with sustainability while facing ongoing pressure to digitize the enterprise.

Sustainability is about efficiency, and that plays right into the role of technology in the modern enterprise.

Frey advises CXOs to take this opportunity to ensure all technology is “doing the most amount of work possible.” This will enable CXOs to reduce over-provisioning, especially at the infrastructure level.

Frey noted that the average CPU utilization is 30%, according to the Uptime Institute. “This means organizations have significantly underutilized infrastructure in their datacenters, and public cloud often has similar levels of under-utilization.” He recommends CXOs to aim for 60-70% CPU utilization.





“There will be a direct business value from being more sustainable,” he added. “Your cybersecurity will improve, it will save you money and your work from break-fix will reduce dramatically.”

He again cited the Uptime Institute research, which found that over 40% of servers were over five years old and only performed 7% of work in the enterprise, while consuming 66% of the power in the datacenter. “We often don’t do anything about the infrastructure until we run out of space, cooling or power,” he said.

Frey observed that there is confusion in the industry about how and when to do a technology refresh.

With notebooks, phones and tablets, 80% of the impact occurs before equipment is first used. With infrastructure equipment, over 80% of the impact occurs when it becomes part of your datacenter or cloud.

“Technology refresh cycles are different for compute, networking and storage, and in most cases the answer is not five years,” said Frey. “But that is the most common depreciation timeline. Sustainability is, therefore, not just about more efficient technology but a complete rethinking of the business and its processes. It means working with the finance teams to reevaluate how to depreciate assets.”



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Closer to home, Frey advises CIOs and CTOs to actively engage in software efficiency. “If you are writing software, pick a more efficient software language like Rust and use software engineering techniques to make sure that the code uses fewer resources,” he said.

According to Frey, rising data levels is another area where business technology leaders can push for greater sustainability, noting that “We only use 32% of the data stored. So how do we think about applications, the data we collect and its impact on the stack?”

As CXOs make the technology estate more efficient and tackle issues like data usage and asset depreciation, Frey reminds business technology leaders that recent history shows that technology leaders create efficiency while peers create demand.

“Our needs are going up, such as the demand or storage,” he said. “However, we know that digital transformation can decarbonize a lot of technology processes.”





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