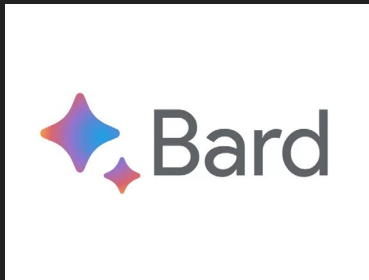


A futuristic cityscape with green, tiered skyscrapers and a winding river. The buildings are covered in lush greenery, and the scene is set against a backdrop of a cloudy sky. The overall aesthetic is clean, modern, and environmentally conscious.

How to Make Generative AI Greener





hyperscale

DALL-E 2



BERT

x10-15 GPU



Bard

vs CPU



Midjourney

The data center industry is responsible for 2–3% of global greenhouse gas (GHG) emissions.

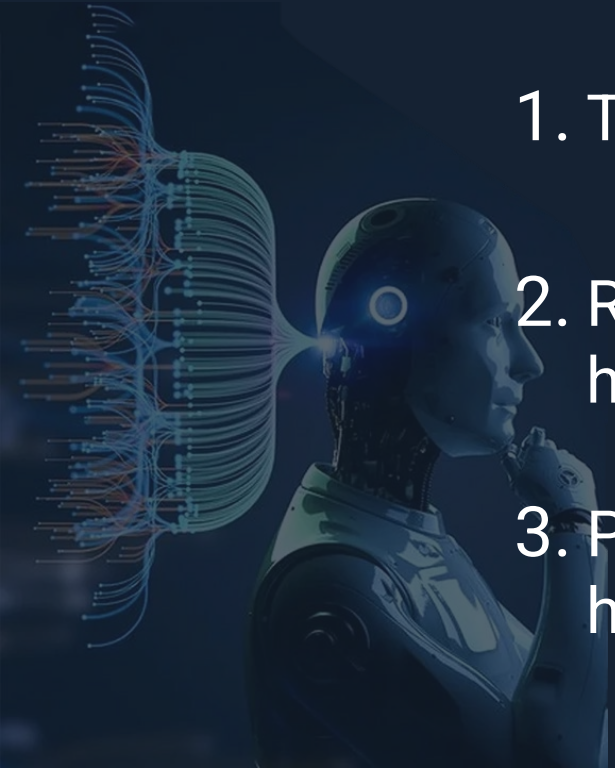
4-6%
by 2026

Training a single medium-sized generative AI model using “neural architecture search” used electricity and energy consumption equivalent to 626,000 tons of CO₂ emissions

CO₂ in 1 year
by **125.200** ppl

WHAT DETERMINES THE CARBON FOOTPRINT OF GENERATIVE AI MODELS?

1. Training the model
2. Running inference with the ML model once it has been deployed
3. Production of all of the needed computing hardware and cloud data center capabilities



HOW TO MAKE AI GREENER



1. Re-use models, fine training, and resources
2. Use energy-conserving computational methods
3. Be discerning about when you use generative AI
4. Evaluate the energy sources of your cloud provider or data center.
5. Evaluate your partners and providers, by giving more business to ones who promote green AI usage
6. Include AI activity in your carbon monitoring



Thank you

Dacil Borges
Dacil.borges@xdroid.com

