# Permacomputing: Achtergrond en artikelen energieverbruik

Polytechnique insights / Generative AI: energy consumption soars, Anne-Laure Ligozat en Alex de Vries

> ***Key takeaways***
>
> - *The energy consumption of artificial intelligence is skyrocketing with the craze for generative AI, although there is a lack of data provided by companies.*
> - *Interactions with AIs like ChatGPT could consume 10 times more electricity than a standard Google search, according to the International Energy Agency (IAE).*
> - *The increase in electricity consumption by data centres, cryptocurrencies and AI between 2022 and 2026 could be equivalent to the electricity consumption of Sweden or Germany.*
> - *AI's carbon footprint is far from negligible, with scientists estimating that training the BLOOM AI model emits 10 times more greenhouse gases than a French person in a year.*
> - *It seems complex to reduce the energy consumption of AI, making it essential to promote moderation in the future. (lees hier verder)*

Joule / The growing energy footprint of artificial intelligence, Alex de Vries in Science Direct

> *Throughout 2022 and 2023, artificial intelligence (AI) has witnessed a period of rapid expansion and extensive, large-scale application. Prominent tech companies such as Alphabet and Microsoft significantly increased their support for AI in 2023, influenced by the successful launch of OpenAI's ChatGPT, a conversational generative AI chatbot that reached 100 million users in an unprecedented 2 months. In response, Microsoft and Alphabet introduced their own chatbots, Bing Chat and Bard, respectively.[1] This accelerated development raises concerns about the electricity consumption and potential environmental impact of AI and data centers. In recent years, data center electricity consumption has accounted for a relatively stable 1% of global electricity use, excluding cryptocurrency mining. Between 2010 and 2018, global data center electricity consumption may have increased by only 6%.[2] There is increasing apprehension that the computational resources necessary to develop and maintain AI models and applications could cause a surge in data centers' contribution to global electricity consumption. (lees hier verder)*

eWeek / Understanding AI Energy Consumption: Trends and Strategies for 2024

> *Artificial intelligence promises lightning-speed efficiency for businesses and consumers, but powering this technology requires vast amounts of energy. Whether it's training a new AI model, assessing or optimizing performance, or even maintaining it, supporting AI consumes astronomical quantities of watts. While this energy consumption supports some of our favorite AI solutions, its exponential increase raises serious environmental concerns. An understanding of AI energy consumption is relevant not just to the builders of the technology but to everyone who interacts with it. (lees hier verder)*

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