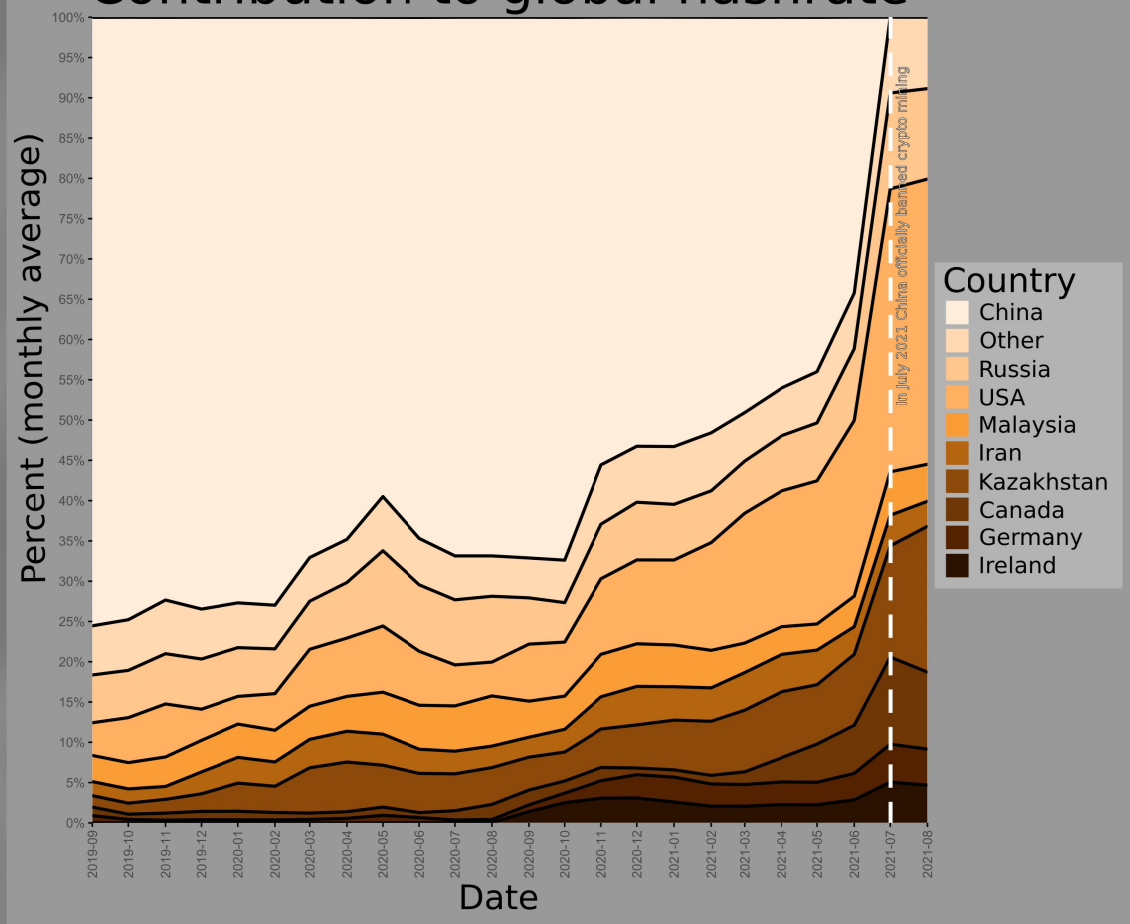
CRYPTO And its influence on the environment

Contribution to global hashrate

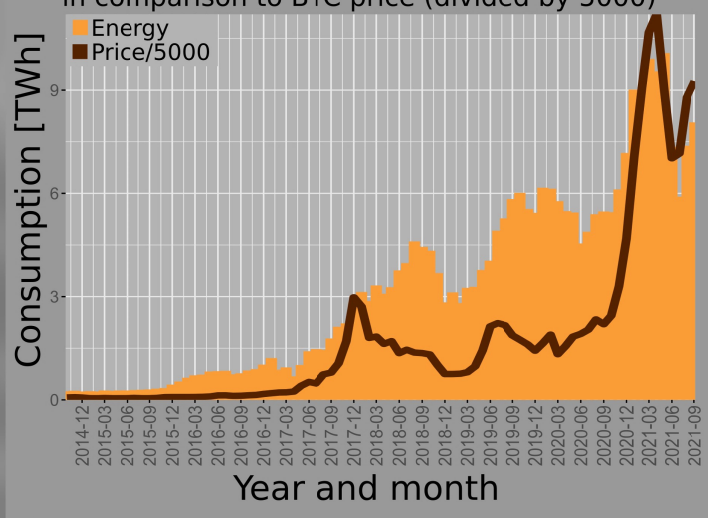


Countries' share of BTC mining hashrate looks a bit surprising at the first glance.
'Where did the China go?', you may ask.
Well, in fact, Chinese miners didn't cease to exist during the summer of 2021.
Crypto mining was banned in July, so no official statistics have been available since then.
That explains the sudden drop, but we can also see that miners from US and Kazakhstan are gaining ground on the others.

Data source: https://cbeci.org/mining_map

BTC energy consumption

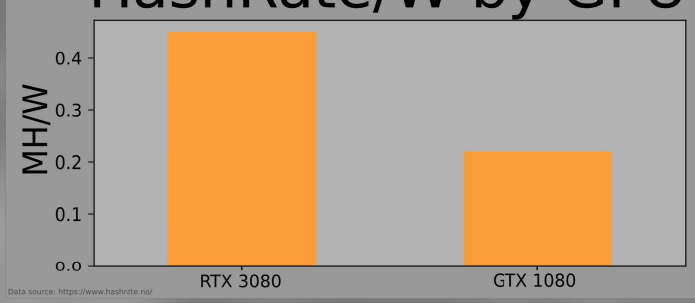
in comparison to BTC price (divided by 5000)



This plot represents changes in BTC stock price and energy consumed for mining in time.
There are three major peaks which can be distinguished.
In the first two of them (emerging in late 2017 and middle 2019) energy consumption increased more than stock price by percentage,
though the third peak was more significant when it comes to the price change.
The major cause of it is probably the improvement in the GPUs' energy efficiency (hashrate per watt)

Data source (BTC Price): https://finance.yahoo.com/quote/BTC-USD/history/
Data source (Energy)https://ccaf.io/cbeci/index

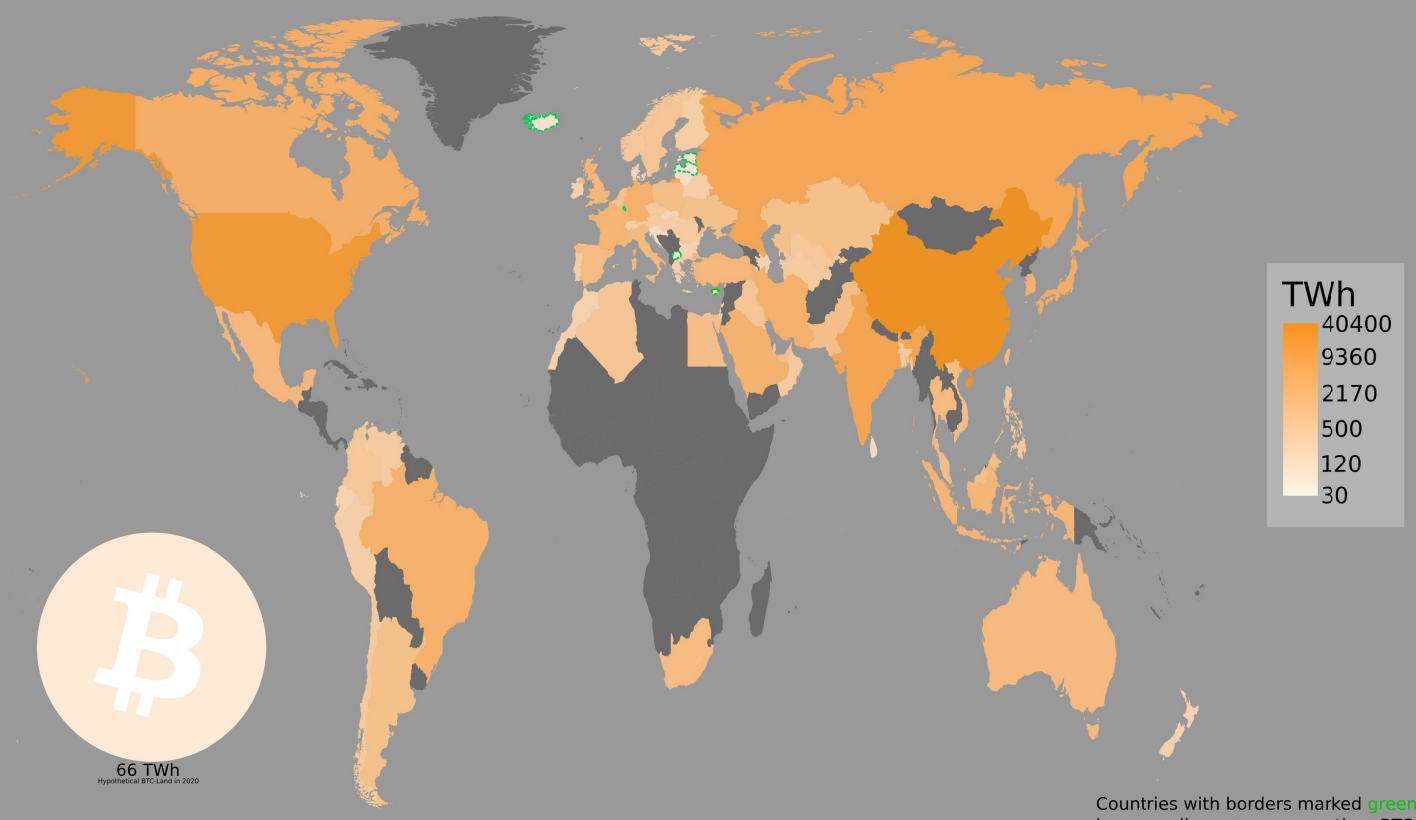
HashRate/W by GPU



Data source: https://www.hashrate.no/

Global energy consumption in 2020

+hypothetical BTC-Land with energy consuption of all BTC mining in 2020 combined



Countries with borders marked green have smaller energy usage than BTC

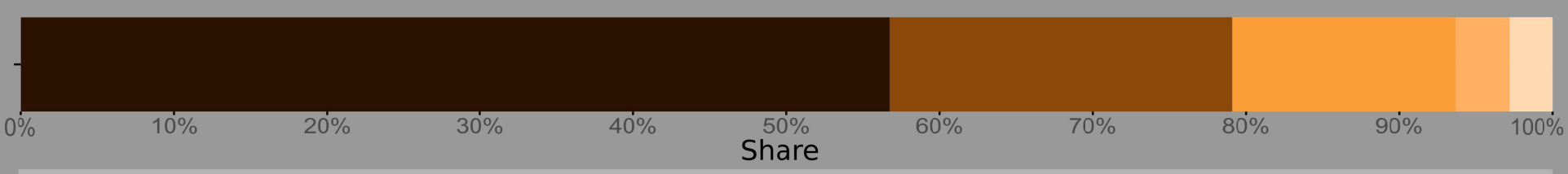
Data source: https://www.bp.com/en/global/a/energy-economics/statistical-review-of-world-energy.html

Bitcoin's creator

Source: https://pl.pinterest.com/pin/507640189219918 8:4/?amp_client_id=CLIENT_ID(_)&mweb_unauth_id={{default.session}}&simplified=true

Satoshi Nakamoto was (or were) the inventor(s) of Bitcoin cryptocurrency.
Created in 2009, BTC was developed by him(them) until December 2010.
The identity of Nakamoto still remains unknown.
Due to the great amount of work and knowledge which was required to create the transaction system, many experts have considered Nakamoto to be a group of people.
Amongst other candidates, most interesting claims are: Elon Musk, Hal Finney or former programmer and drug dealer Paul Le Roux.

Global energy production by source



Coal pollutes during every stage of the energy production process, from mining and transporting to storage and burning. We estimated that 8.7 mln tonnes of coal must have been used in order to generate the energy for BTC mining in 2020, which generates: 18 mln tonnes of carbon dioxide (CO_2), 26k tonnes of sulfur dioxide (SO_2) and 1.6k tonnes of nitrogen oxides (NO_x), which contribute to smog, acid rain and respiratory illnesses.

Natural gas - extracting natural gas, which itself is destructive to the nearby ecosystems and transporting it in pipelines results in the leakage of methane, the main component of natural gas, which is 35 times stronger than carbon dioxide at trapping heat.

Renewables - clean energy sources, such as solar, hydro or geothermal power. Renewables have geographical limitations, but this is not problematic for BTC mining, as it can be done in remote places.

Nuclear - produces radioactive high-level waste, that requires special handling, because of the radiodecay heat load. We can estimate that in 2020 at least 230 kg of Uranium 235 was used for BTC mining.

Oil - burning oil releases gases such as carbon dioxide and other greenhouse emissions. Refining oil produces highly toxic substances such as carbon monoxide. While transporting oil there's a risk of spills, that are destructive to aquatic life.

Data source: https://www.bp.com/en/global/a/energy-economics/statistical-review-of-world-energy.html

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