

Moore's Law is named after Gordon Moore, former CEO of intel, who wrote a paper in 1965 describing the progress in transistor technology and correctly predicted a doubling every year in the number of transistors in an integrated circuit.

However, more transistors will consume more power and as density of transistors increases the amount of power becomes so high it will melt the chips. This limit is called the powerwall.

We can decrease power consumption by using voltage scaling, but must stay above a threshold. If we go too low we will get voltage swings and increased noise. Voltage scaling also cannot prevent leakage power loss.