# Moore's law

- Moore's law is the observation that the number of transistors in a dense integrated circuit doubles about every two years.
- The transistors consume power, while the density of transistors going up on the processors, the transistors consuming a chunk of power which become a critical issue and they call it a power wall, Temperature becomes too high which will physically melt the chips.
- Power consumption on portable devices. Voltage cannot go too low (Dennard scaling)Transistor leaks off power even when it's not switching (Leakage power).
- Voltage scaling is limited due to noise or threshold voltage.
- Voltage scaling reduces (dynamic) power consumption.