Moore’s law – is an observational prognosis which states that transistor density is going to be doubled every 2 years. It used to work for several decades while the size of transistors was “still big in size”. Means that did not hit «the power wall» which is quite hard to overcome because of

* Necessity for intensive cooling coming from high amount of transistors and high density packing
* Inability to decrease voltage swing due to the presence of noise – which limits our ability to scale down the power while growing amount of transistors
* Inextinguishable power leaks which are becoming more harmful the smaller the transistor is

There are also some direct physical issues which are going to come into play based on the fact that we are approaching quantum boundaries which are going to impede applicability of Moore’s law further even if we find a working solution for the power wall problem .