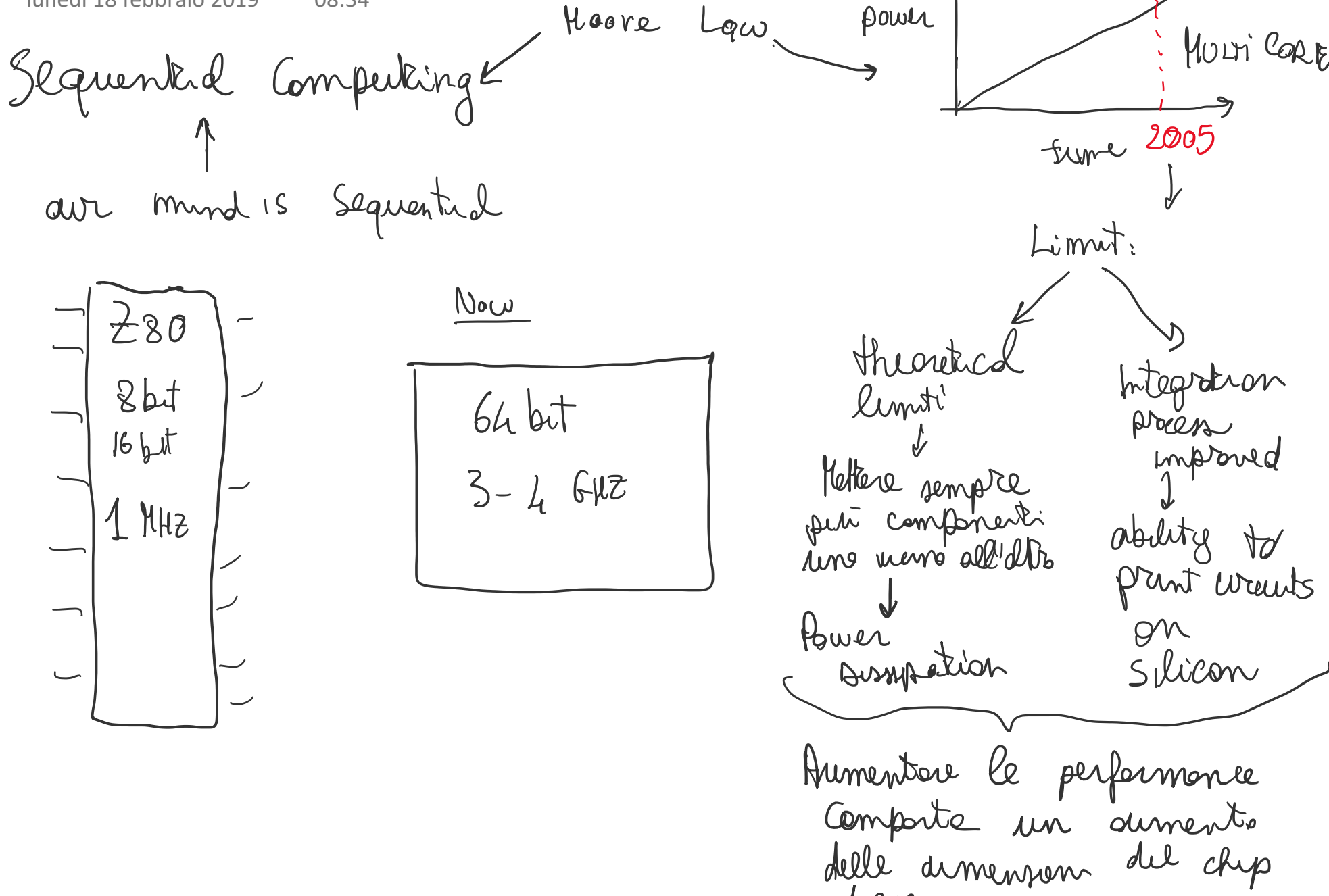


1 Lezione: Hardware advances

lunedì 18 febbraio 2019 08:34

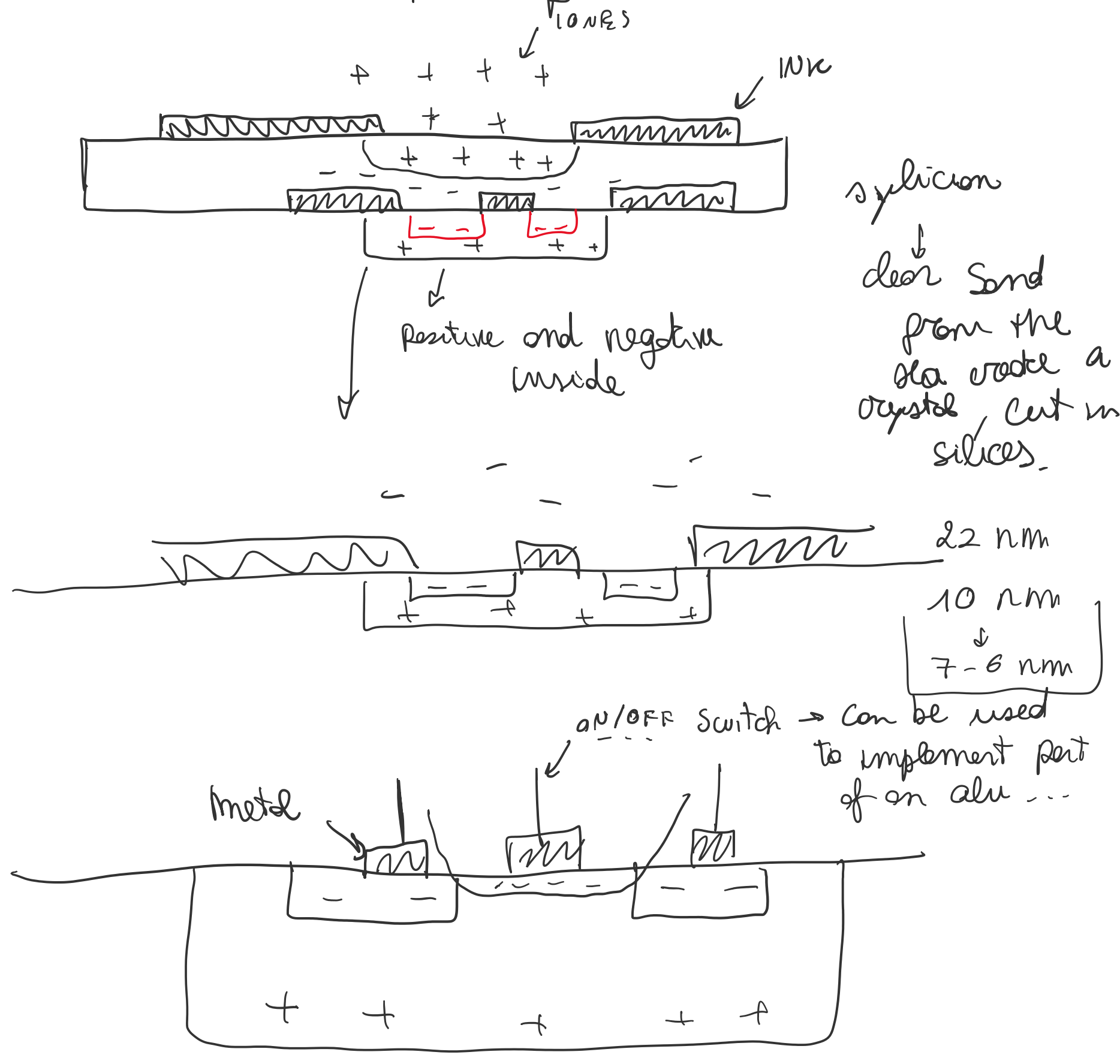


In 2005 Stopped to put things on 1 chip and they started to design multicore architecture.

Simpler chip instead of using a single complex chip.

Anche più semplice disporre il colore.

Areas to build the chip:



CMOS technology o MOSFET.

Most of the process is being able to inserte più sempre più piccole sul chip.

2° big improvement:

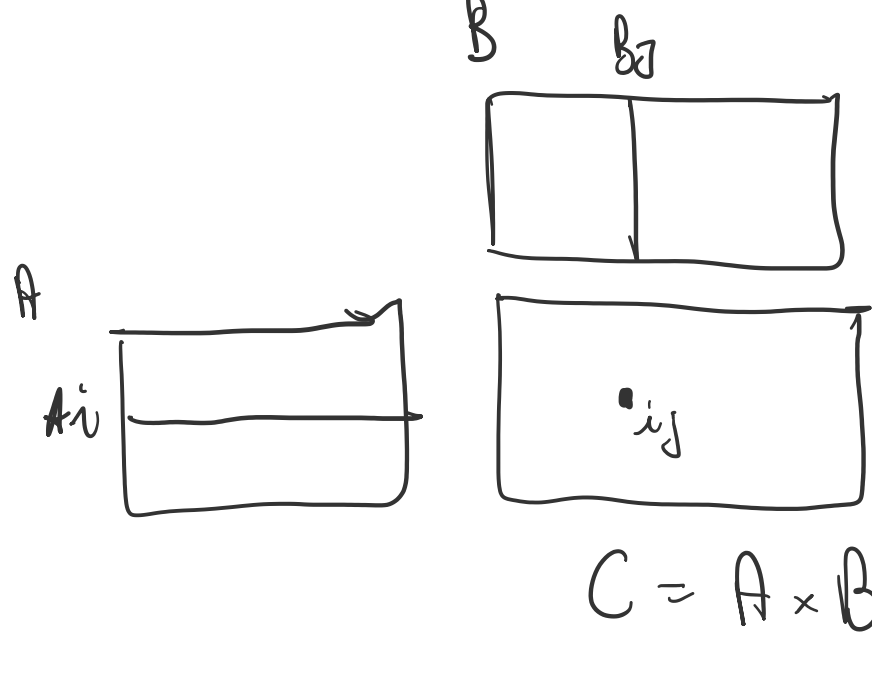
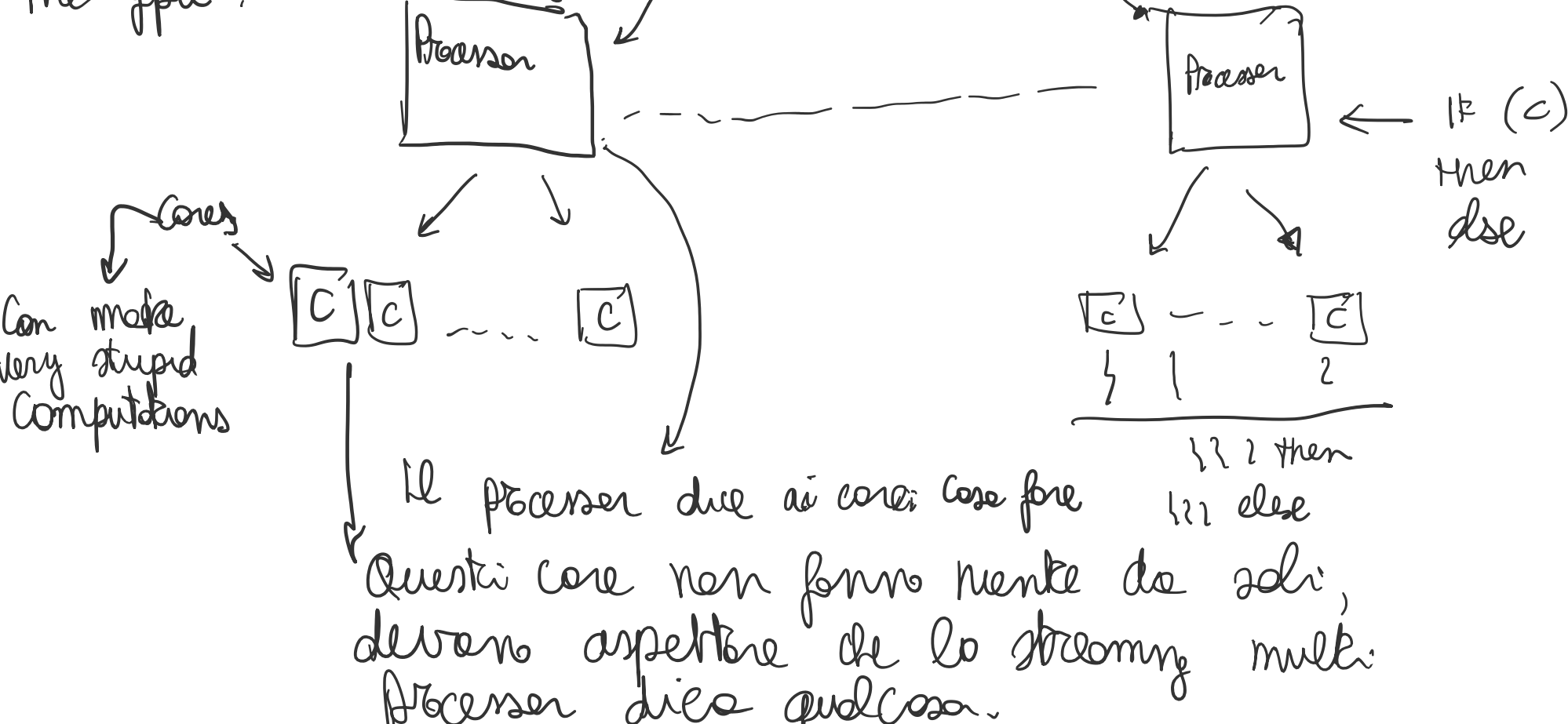
GPUs FPGAs

graphical processing unit

Specialized device to display graphics. (render images on the screen)

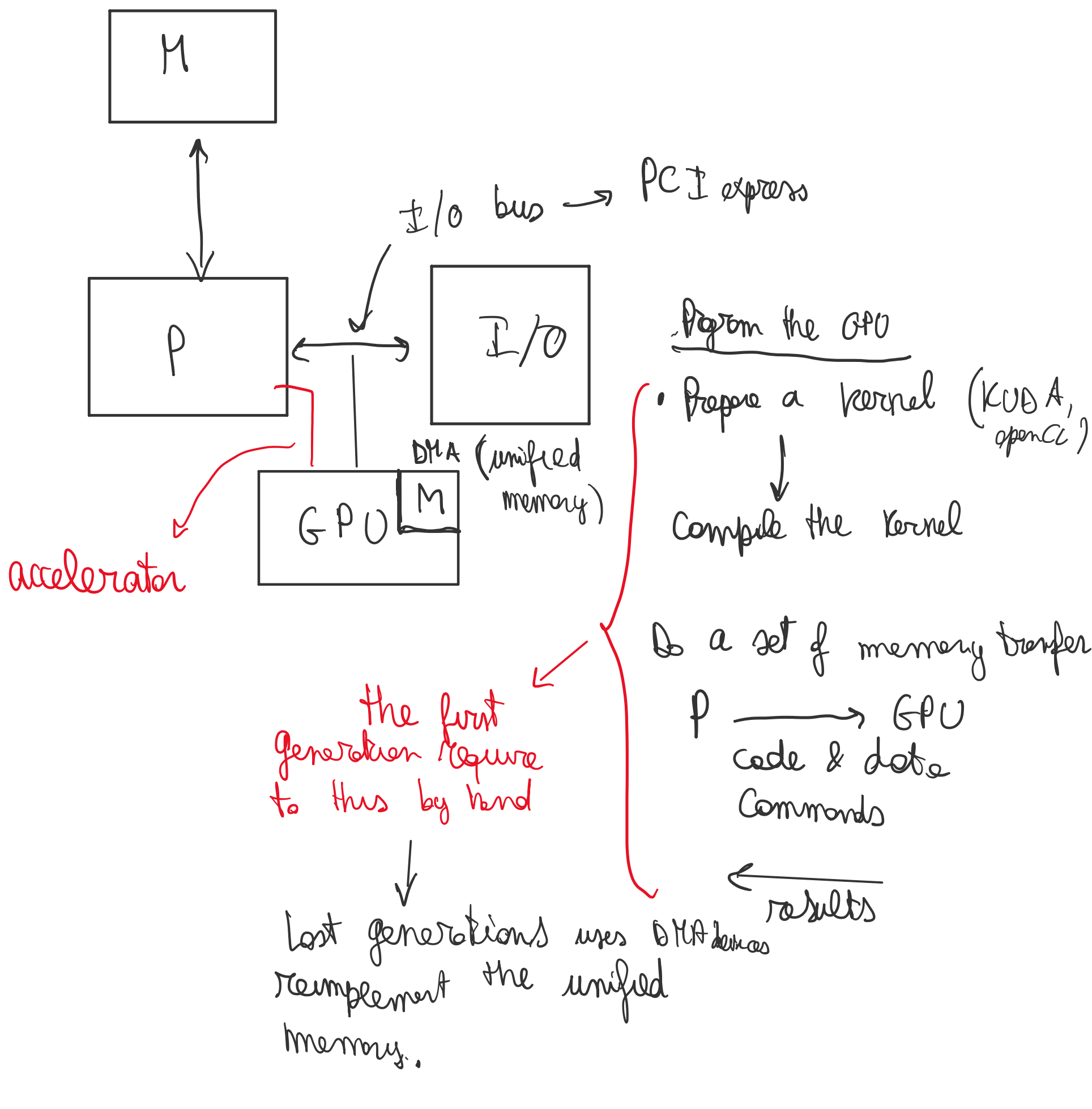
show/draw ...

the gpu:



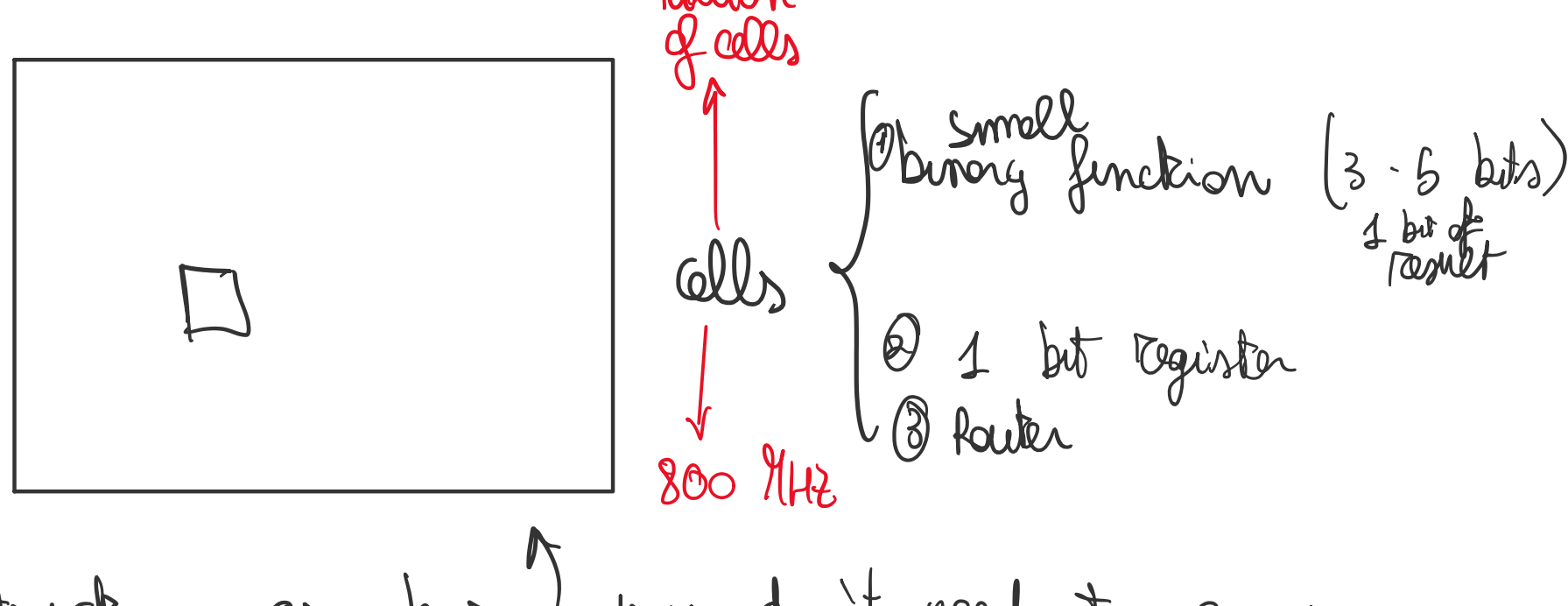
$$c_{ij} = \sum_k a_{ik} \cdot b_{kj}$$

with gpu the multiplication can be done in parallel.



FPGA → field programmable gate array

is a matrix



the instructions are here you don't need to go in memory

