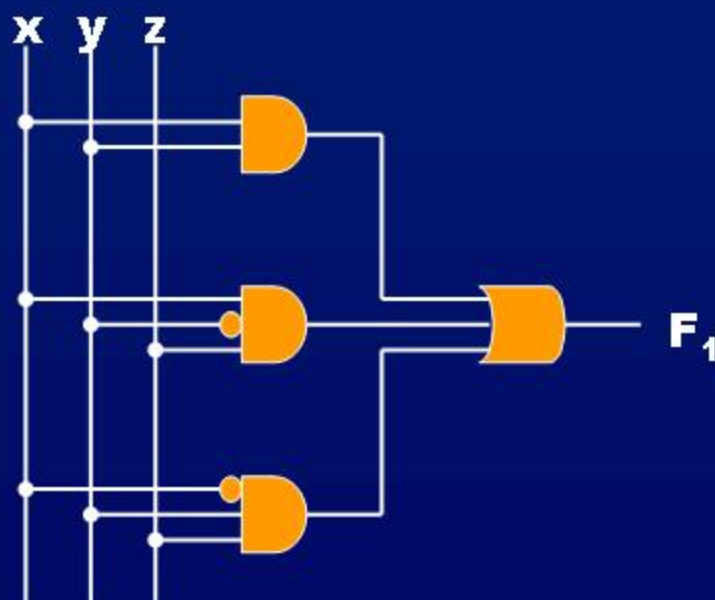


3. Giới thiệu công nghệ IC khả trình

Công nghệ IC khả trình

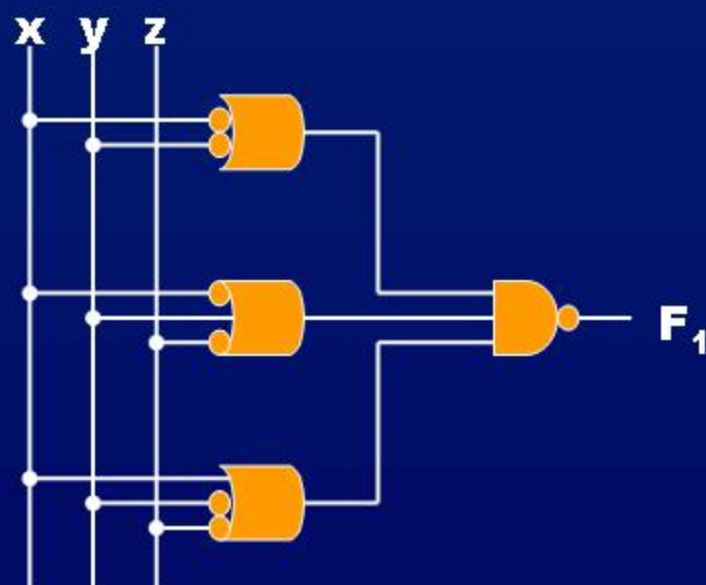
- Realisation as AND-OR:

$$F_1 = xy + xy'z + x'y z$$



- Realisation as OR-AND:

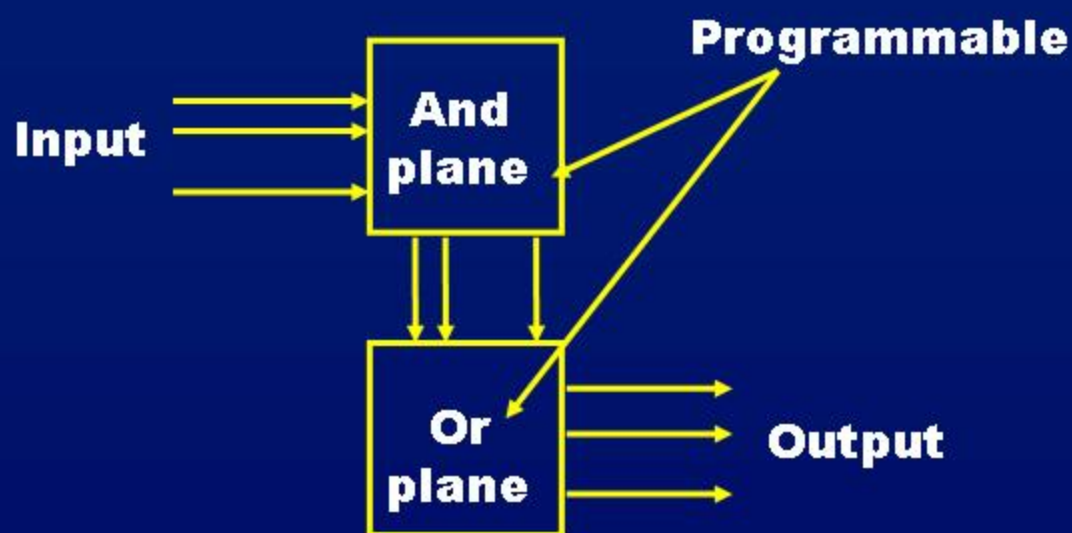
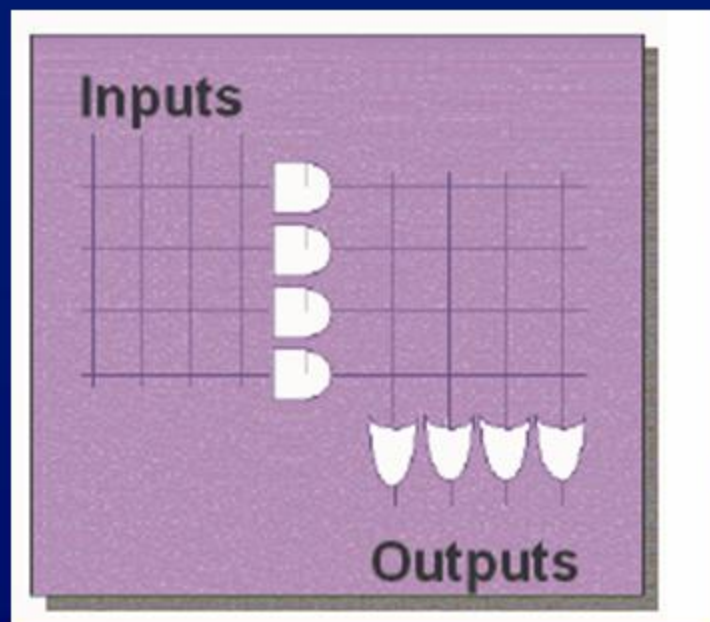
$$F_1 = ((x' + y') (x' + y + z') (x + y' + z'))'$$



Công nghệ IC khả trình

Programmable logic array

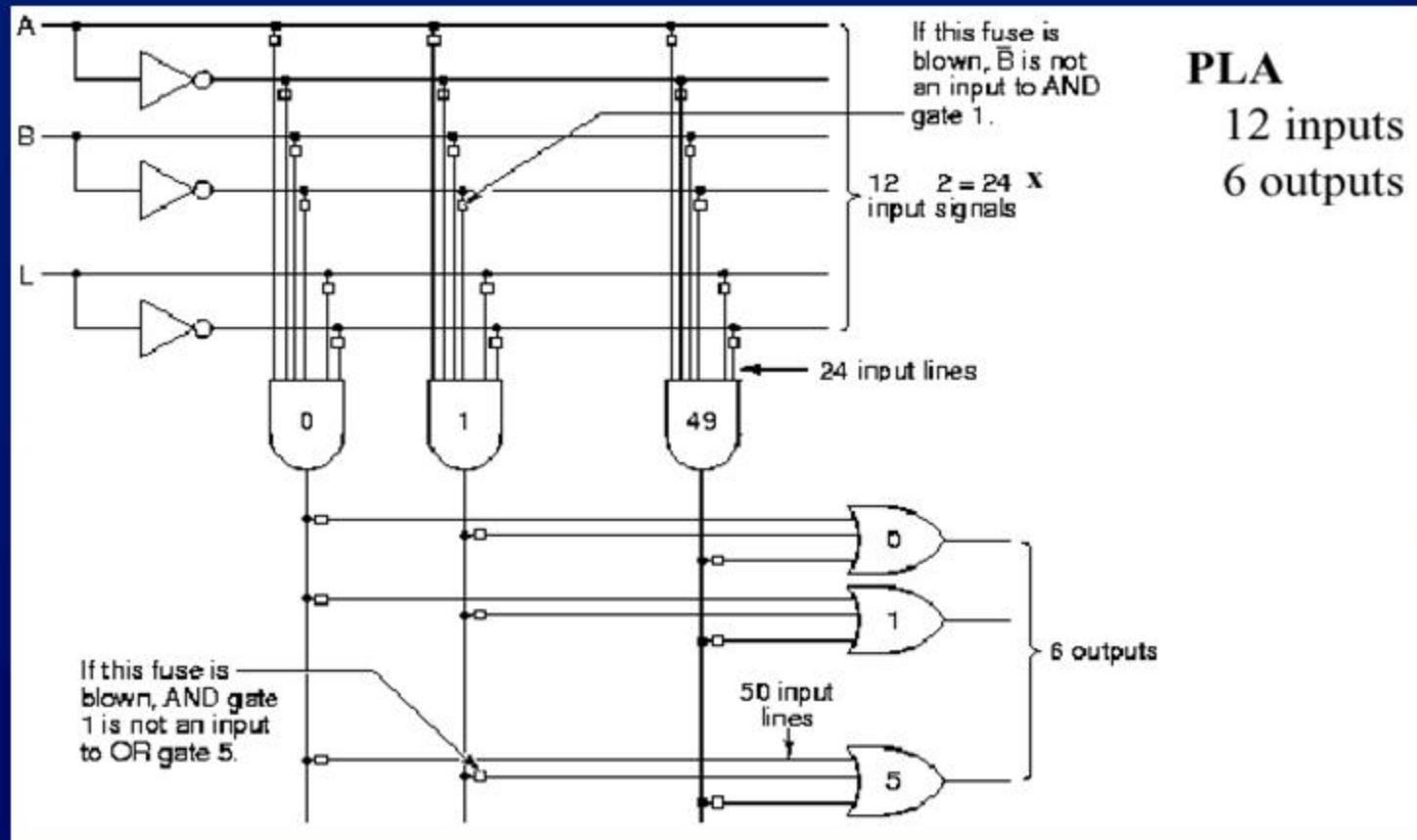
- PLA



Công nghệ IC khả trình

Programmable logic array

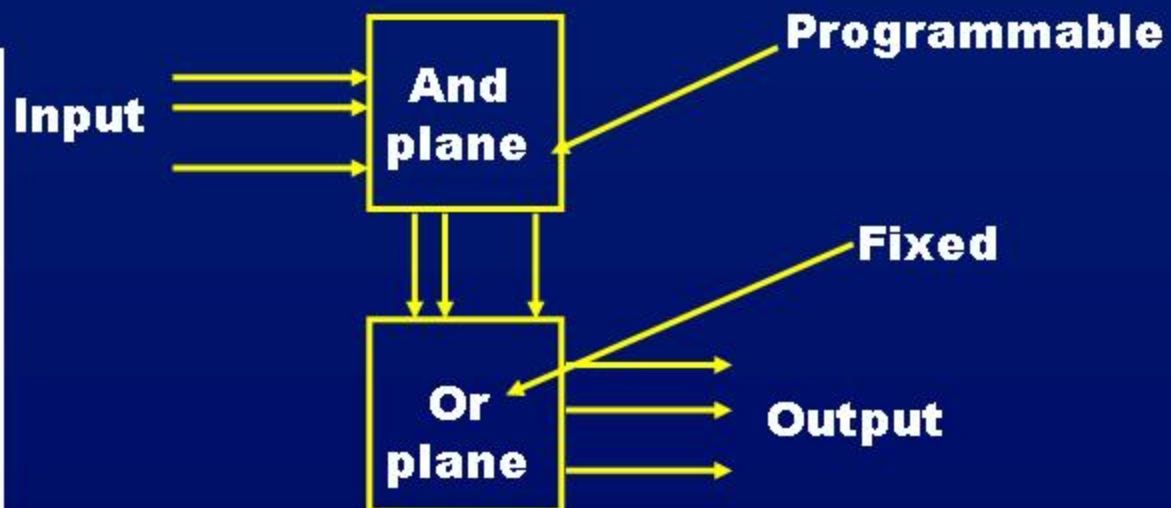
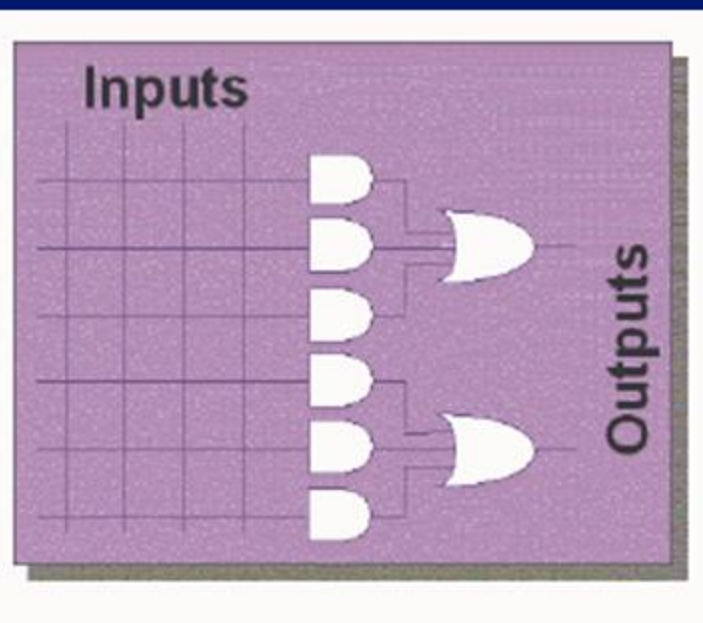
- PLA



Công nghệ IC khả trình

Programmable Array Logic

- PAL

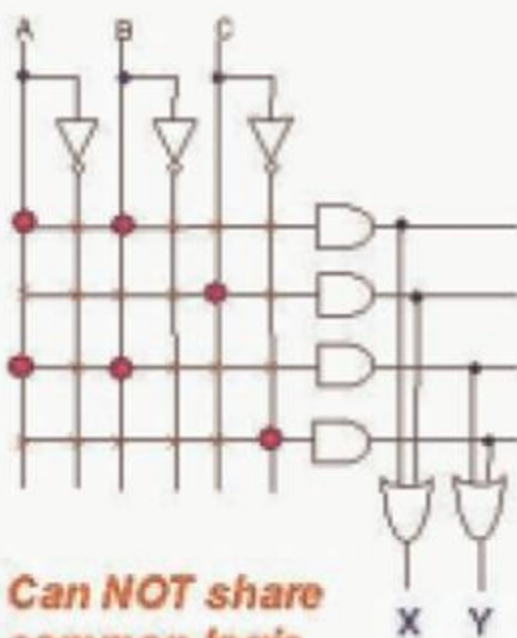


Công nghệ IC khả trình

Programmable Array Logic

Logic Allocation: PLA

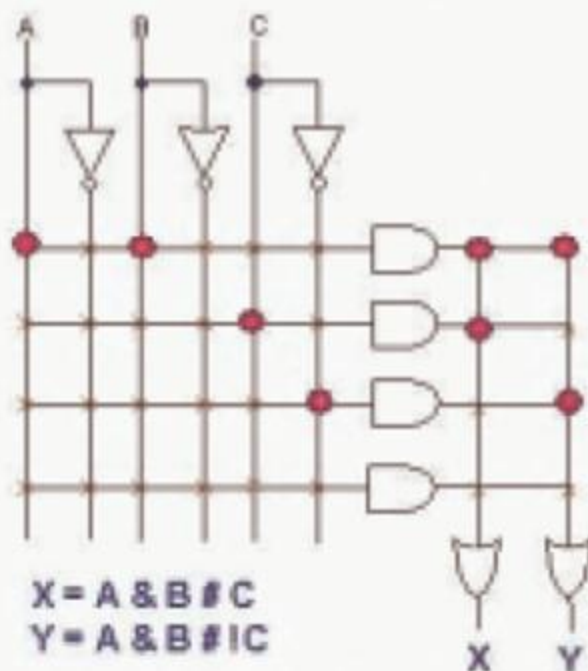
PAL: Requires 4 pt's!



**Can NOT share
common logic**

- Indicates 'used' junction
- × Indicates 'unused' junction
- Indicates 'fixed' junction

PLA: Requires only 3 pt's!

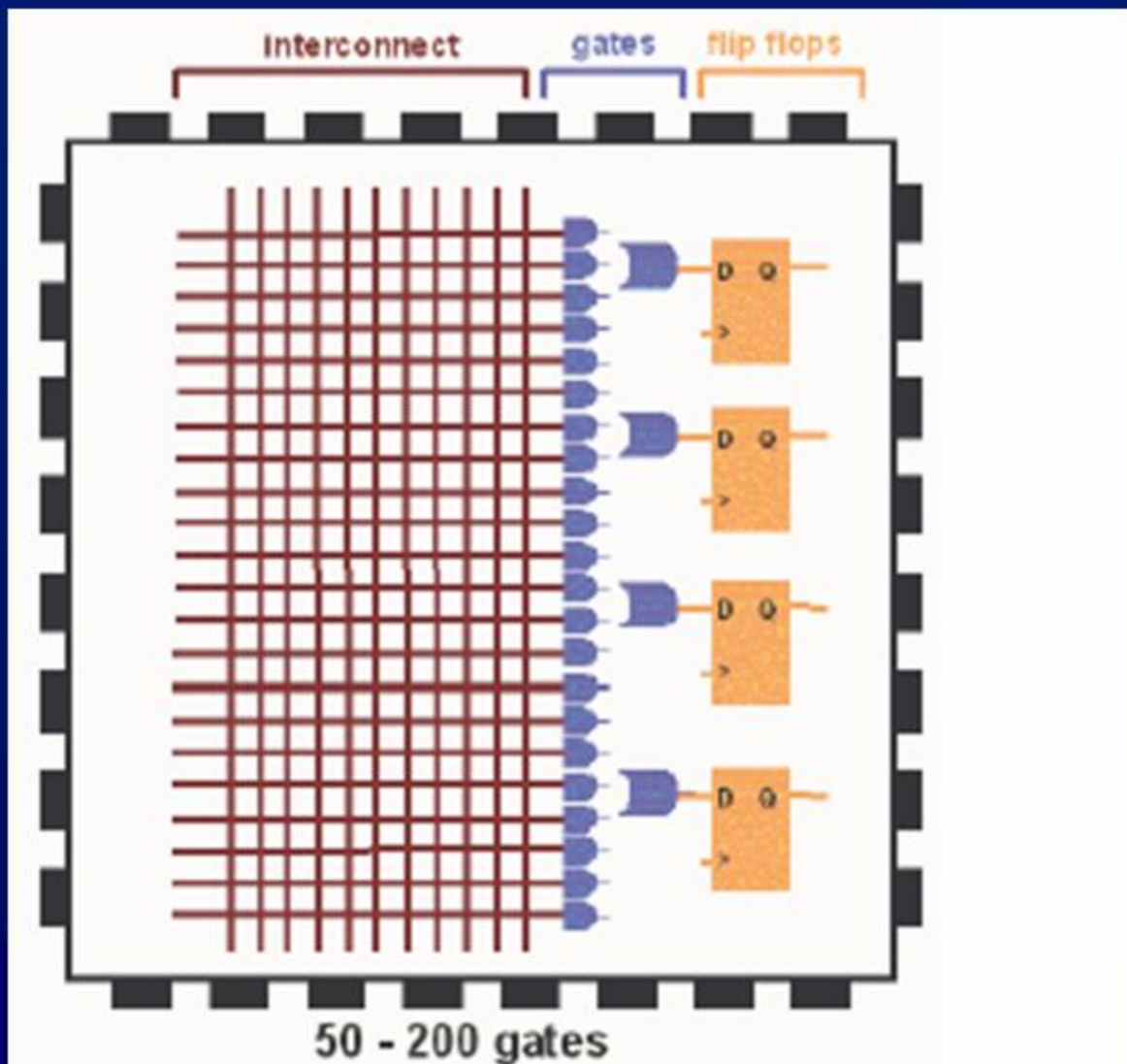


**Common logic may be shared
in CoolRunner-II**

Công nghệ IC khả trình

Complex Programmable Logic Devices

- CPLD



Công nghệ IC khả trình

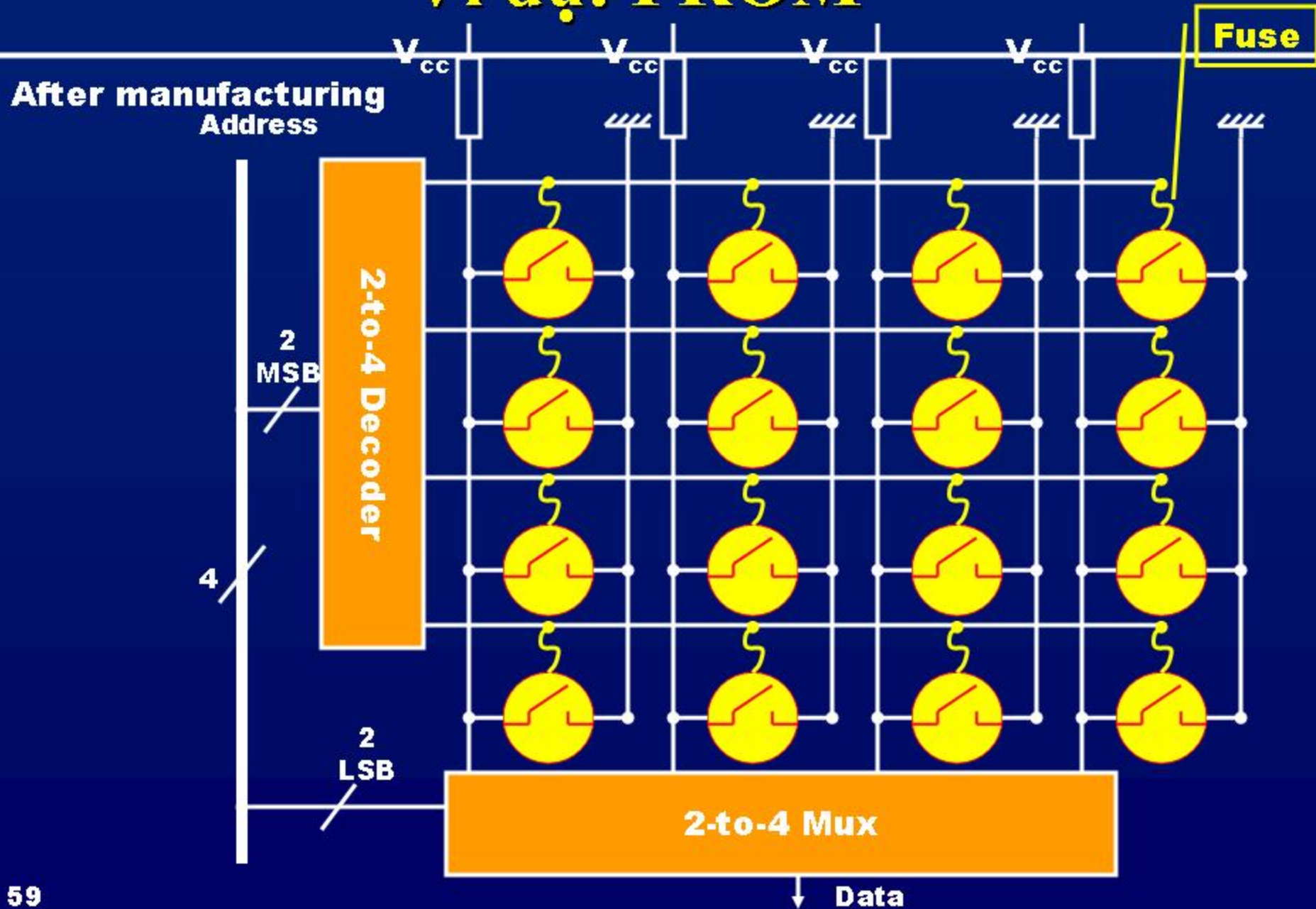
Complex Programmable Logic Devices

- Các công nghệ lập trình
 - PROM: Lập trình 1 lần
 - EPROM, flash, EEPROM: lập trình nhiều lần



Non-volatile

Ví dụ: PROM



Ví dụ: PROM

