- **EUDET like sensors ⟶ continuous read-out (M-16 like architecture) ⟶ power dissip., *pile-up ?* :**
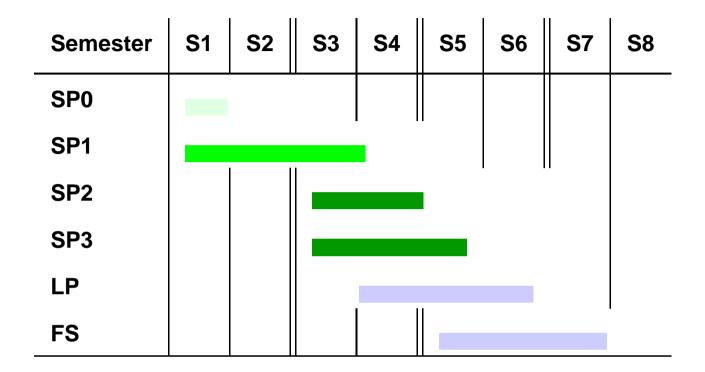
  ↻ **MIMOSA-22 (= M-16 with JTAG, 18 μm pitch, 64 columns of 1 cm, testability, ...)** : subm. **end Sept. '07**

  ↻ **MIMOSA-22✚ (= M-22 with $\varnothing$, 4x64 columns, optim. pixels, testability, ...)** :   subm. **June '08**

  ↻ **Final sensor (= M–22✚ fine tuned with 1088 columns)** :   subm. **end '08/early '09**

  ↻ **STAR final sensor (= EUDET sensor with $\sim$ twice number of rows)** :   subm. $\gtrsim$ **Summer '09**

- **2-capa pixels with decoupled r.o. ($\sim$ M-16 modified for trigger, $t_{int} \lesssim 25\ \mu s$) ⟶ dead time, time-line :**

  ↻ **1st prototype (analog output, variants of pixel architecture, pitch ?, r.o. architectures)** : subm. **early '08**

  ↻ **2nd prototype (digital output, 64 - 256 col. r.o. in //, CDS in pixel,**

      various pixel arrays, discri. output, $\varnothing$? ⟶ M-22✚) : subm. **Jan. '09**

  ↻ **3rd prototype ??? ⟶ EUDET sensor ???**

      (= 2nd proto. with $\varnothing$, optim. pixel, $\gtrsim$ 256 col., ...) : subm. $\geq$ **Autumn '09**

  ↻ **Final sensor (= 3rd proto. with full 2x2 cm^2 surface)** : subm. **2nd half of 2010 !!**

- **Low profile (fast converging) alternative : sensors with analog output & smallest possible pitch ?**

      ⟶ data flow, integration time, pile-up, rad. tolerance (pitch ?) :

  ↻ **$\sim$ Natural continuation of MIMO★-3**

  ↻   **Final chip in 2009 ?**

Semester	S1	S2	S3	S4	S5	S6	S7	S8
SP0								
SP1								
SP2								
SP3								
LP								
FS								

- **Sensor production based on 5 steps** (perhaps only 4, i.e. SP3 included in LP) :

  ☼ **MIMOSA-8 $\equiv$ SP-0 : 25 μm pitch, epi < 7 μm**

  ☼ **MIMOSA-16 $\equiv$ SP-1 : 25 μm pitch, epi $\sim$ 11 or 15 μm, rad. tol., enhanced ampli.**

  ☼ **SUZE-01 $\equiv$ SP-2 : $\varnothing$ μcircuit with integrated output memories**

  ☼ **MIMOSA-22 $\equiv$ SP-3 : like SP-1 but 18 μm pitch, optimised pixels, 64+8 col. of $\sim$ 500 pixels**

  ☼ **M22+ $\equiv$ LP : like SP-3 but $\geq$ 256 col. of $\sim$ 550 pixels and integ. $\varnothing$**

  ☼ **M22++ $\equiv$ FS : like LP but $\sim$ 1100 col. of $\sim$ 550 pixels**