

## EP R&D: Electronics

Strong focus on **Radiation Tolerance** (up to 1Grad)

### **WP 1.2** Monolithic Si detectors

### **WP 5** CMOS technologies

28nm process

Radiation characterisation  
Design kit/flow and SoC infrastructure  
Macroblocks

#### **Power Distribution**

DCDC converters 48V  
Linear regulators 48V and on-chip

### **WP 6** Optical Links

Target: 50 Gbit/s, PAM4 and/or WDM  
Chipset (28nm ASICs)  
FPGAs  
Silicon Photonics

## **“Mature” developments**

### **CMOS technologies**

65 and 130nm process

Radiation characterisation  
Design kit/flow  
(Some) Macroblocks

### **Power distribution**

DCDC converters 12V and 2.5V  
Linear regulators 12V

### **Optical Links**

Chipset 65nm for 10Gbit/s  
Tx/Rx modules

### **+ FastIC family**

Readout of fast timing detectors  
Detector-specific development &  
medical application