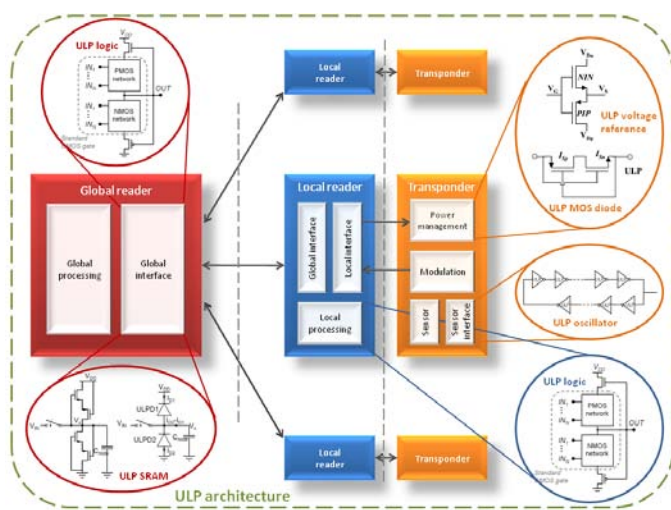


## ULTRA-LOW-POWER TECHNOLOGIES FOR WIRELESS MONITORING SYSTEMS

Sopartec, the technology transfer company of the Université catholique de Louvain (UCL), presents unique ultra-low-power technologies covered by several patents.



### Technology Keywords

- Ultra-low Power
- Sensing components
- fully-integrated CMOS chip

### Technology Market : Sensors

Wireless integrated sensors are the key technology to improve productivity and quality in the following fields :

- **Health care:** patient monitoring, blood bag tracking, samples measurements, pathogen detection
- **Environment**
- **Building and vehicle control:** structural health monitoring, environment conditions monitoring
- **Product manufacturing:** process monitoring, goods tracking, control of food storage conditions, crops monitoring

The unique ultra-low-power technologies from UCL meet the market demand for massive deployment of microscopic integrated **sensing components** in wireless monitoring systems.

### The UCL invention

UCL ultra-low-power (ULP) technologies form a series of microelectronics patents that enables the building of **sensing components**. Each component is a microscopic **fully-integrated CMOS chip**, with unreached power consumption levels in both active and stand-by modes. Typical **active power** is lower than **10 $\mu$ W**, while **stand-by power** can be as low as **1nW**. UCL technologies feature low production cost as components can be manufactured in any CMOS semiconductor process, while keeping their ultra-low-power characteristics.

### Technology Status

This work is the subject of patent applications :

- Ultra-low-power circuits, EP2008/055239. (GB0708324.9, Priority date: 2007-04-30 ; PCT Patent Application PCT/EP2008/055239, 2008-04-30)
- Wireless architecture for interfacing MEMS tag sensors at ultra low power, (GB0801130.6, Priority date: 2008-01-22 ; PCT Patent Application PCT/EP2009/050734 : 2009-01-22)
- Ultra-low power basic blocks and their uses, (EP00870313.4, Priority date : 2000-12-21 ; EP44253 A1 2001-12-17 ; U6870229 B2, 2001-12-17)

Sopartec would like to talk to companies interested in developing and commercializing this opportunity.

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