

# Open-PEOPLE

Open-Power and Energy Optimization Platform and Estimator

Programme Systèmes Embarqués et Grandes Infrastructures, 2008

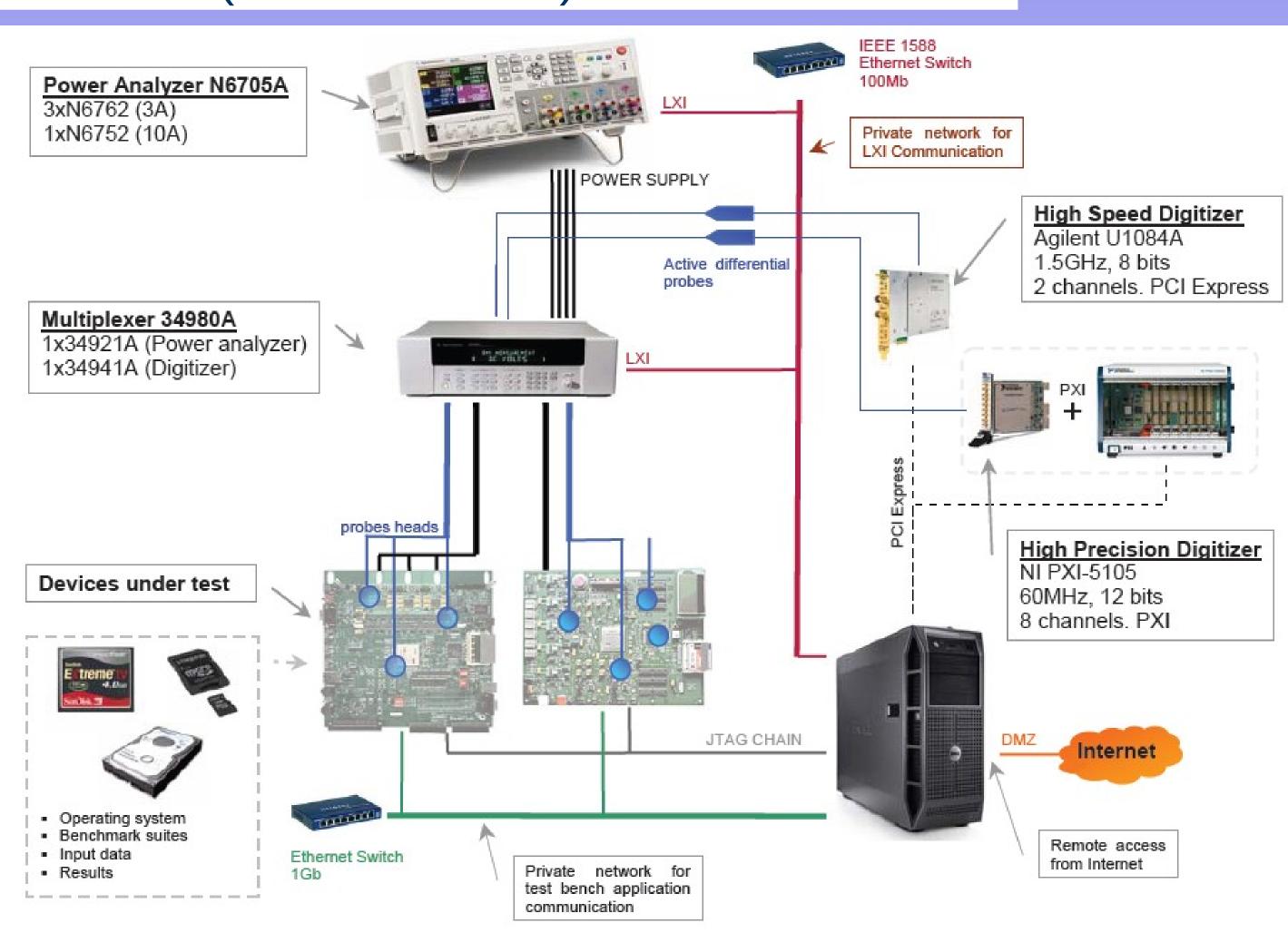


## OBJECTIVE:

- •A platform for estimating and optimizing the power and energy consumption of complex electronic systems
- Open: internet access, partners club
- •Extensible : online measurements and model development

### PARTNERS:

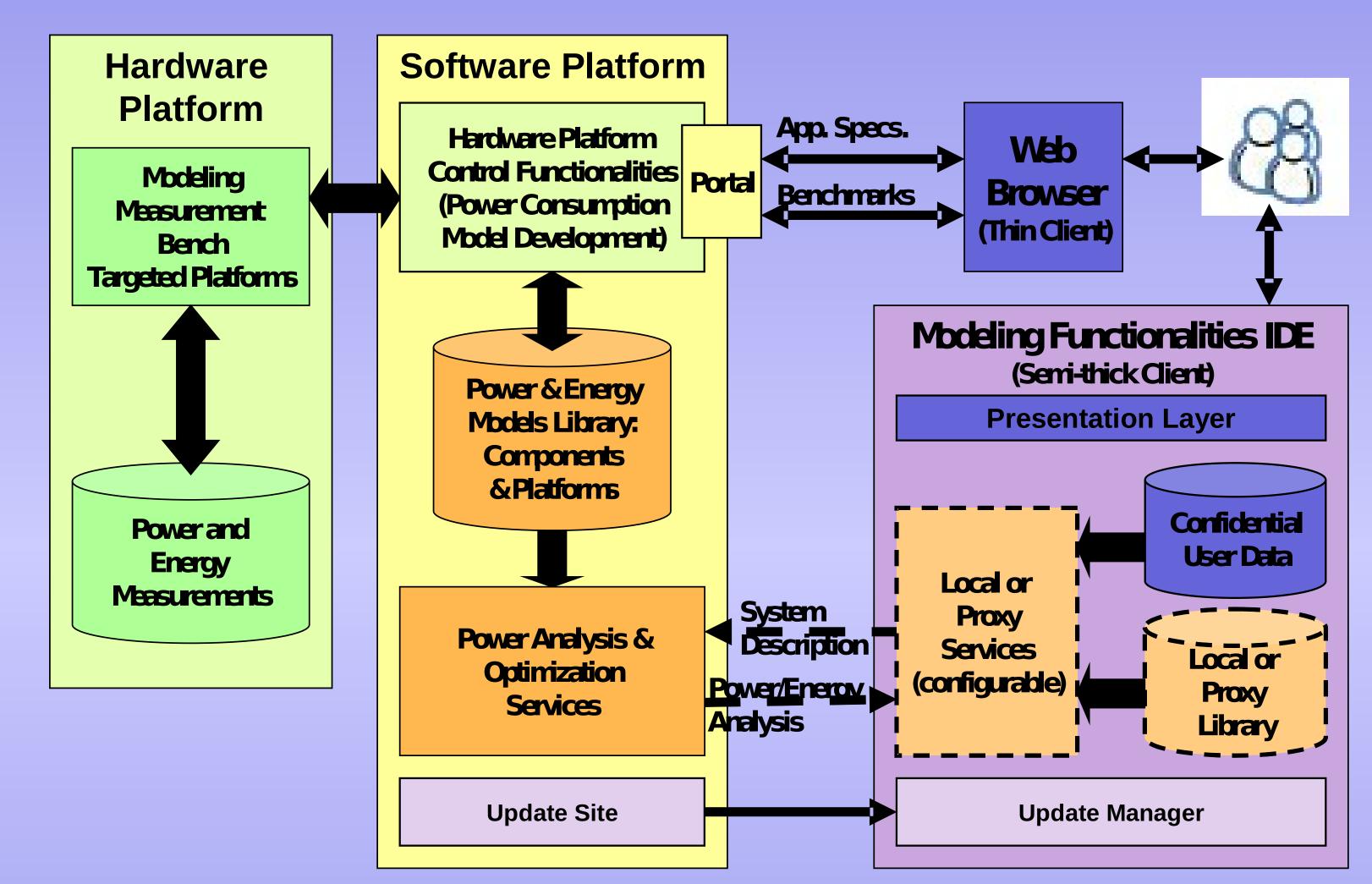
- •Université de Bretagne Sud / Lab-STICC
- •THALES Communication
- •INRIA Lille Nord Europe / DART
- •INRIA Nancy Grand Est / LORIA
- Université de Nice Sophia Antipolis /
  LEAT
- •Université de Rennes 1 / IRISA CAIRN
- InPixal (sub-contractor)



### RESULTS:

- •Software platform via internet portal or local client
- •Hardware platform with automatic measurements to develop new models
- •Methods and tools for consumption estimation and optimization
- •A library of standardized software and hardware components models
  - ✓ Models for complete platforms
  - ✓ Models for operating systems services
- Demonstrators
  - √ Video (analytic + compression)
  - √ Telecommunication (SDR)

# http://www.open-people.fr



### INNOVATIONS:

- •Integration of high-level power models in the MDA design flow
- •Consumption analysis for:
  - ✓ Reconfigurable components
- ✓ Operating systems and power management services
- ✓ Heterogeneous multiprocessor platforms
  - ✓ Memory transfer optimization
- •Compiler optimization for peak power reduction
- Power and energy models standardization
- •Generic models for generic components
- •MDE techniques : a DSL for power analysis

