



capenergies Cluster

for non-greenhouse gas energy sources

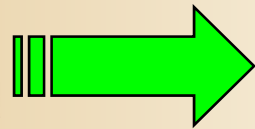
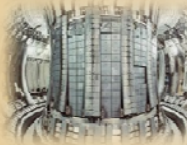
from Research to Production and Energy Efficiency

Cluster supported by :

- Conseil Régional PACA
- DRIRE PACA et Corse
- Collectivité Territoriale de Corse
- Conseils Généraux du 04, 05, 06, 13 et 84
- Communauté du Pays d'Aix
- Marseille Provence Métropole



Strategy - A Dynamics of Projects



Our Priority : to foster Innovation

Since Nov. 2005 :

- **220** innovative projects analyzed
- **166** projects certified :
 - distributed over 9 thematic fields
 - involving **130 different members**
 - a high rate of SMEs participation
 - for a total investment of : **1 066 M€**
 - from Research to Development
- **100** projects financed and implemented as of today :
 - total budget : **256 M€**
 - grants obtained : **112 M€**

PREMIO Project



PREMIO



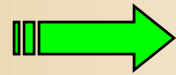
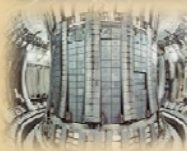
Production Répartie, EnR et MDE, Intégrées et Optimisées

**Distributed Generation, Renewable Energies & Load Management
in an Integrated and Optimized way**

**An innovative and collaborative project
A pilot experiment in the PACA region (France)**



Objectives of the Project

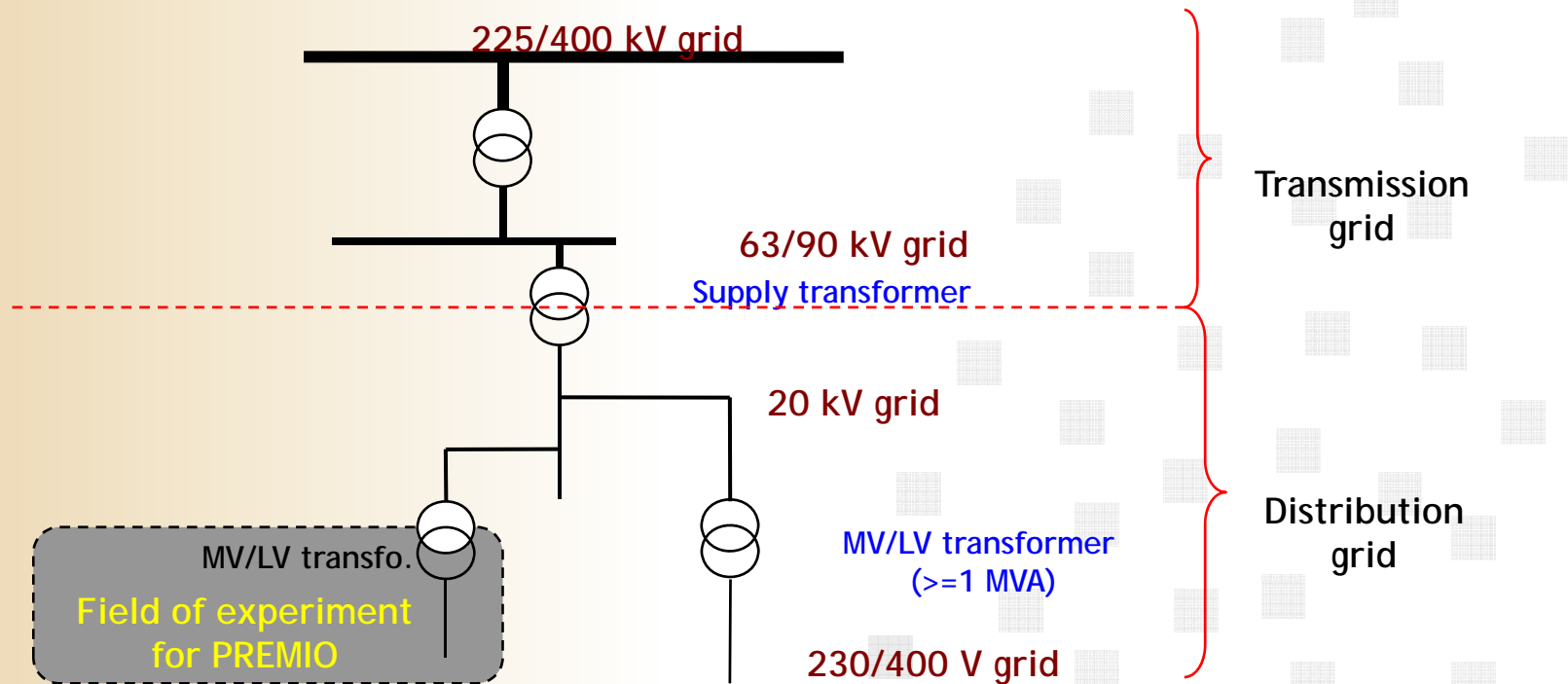


To implement and test, in a district of the PACA Region, an innovative concept aimed at :

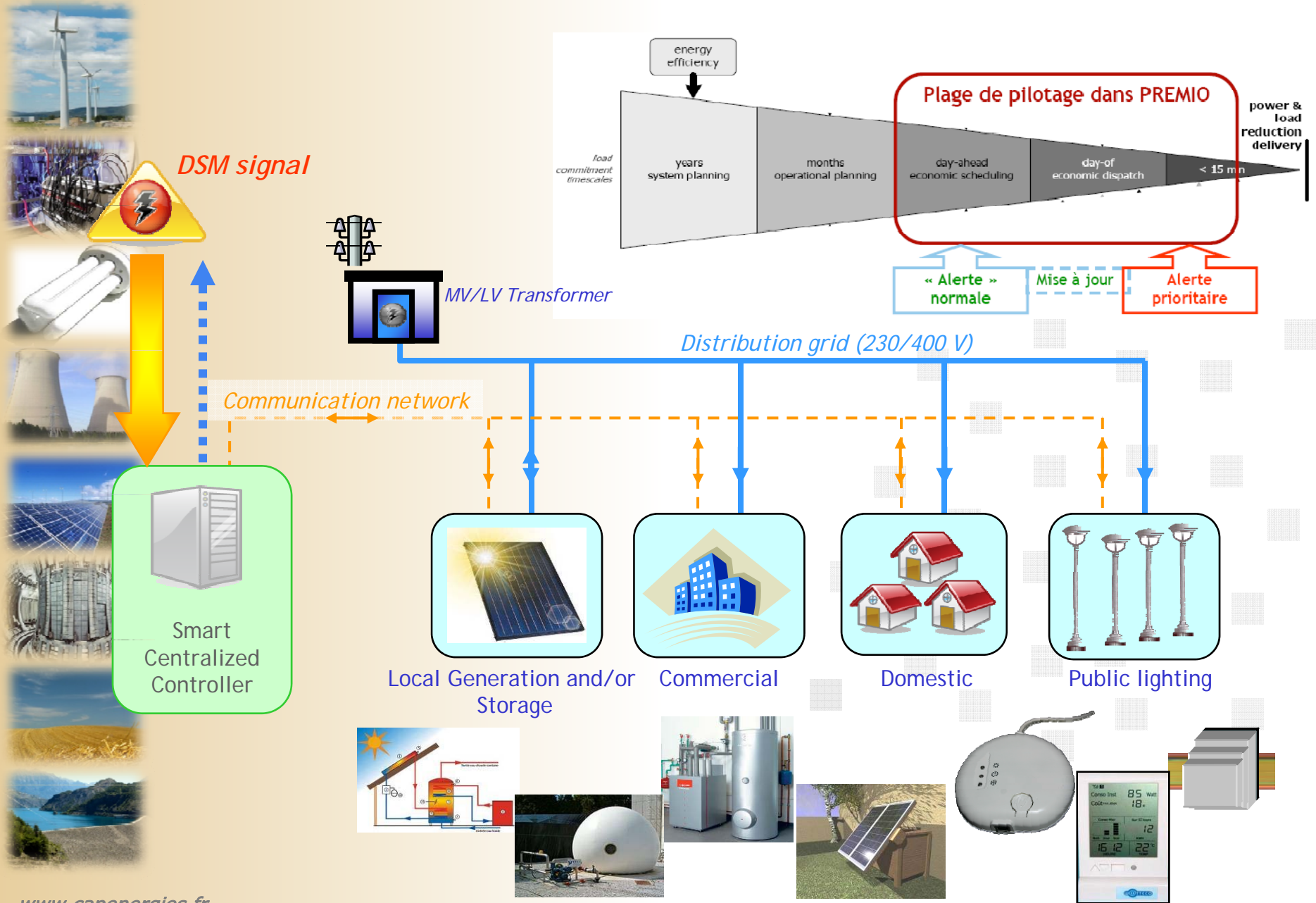
- **dynamic optimization of the local electricity demand**
- **reduction in CO₂ emissions through load/supply management**
- **promotion of Renewable Energies, distributed generation/storage and energy savings**
- **optimized integration of local generation and distributed storage**
- **study of new business models**

To manage Local Demand...

... downstream of a MV/LV transformer



PREMIO's overall architecture

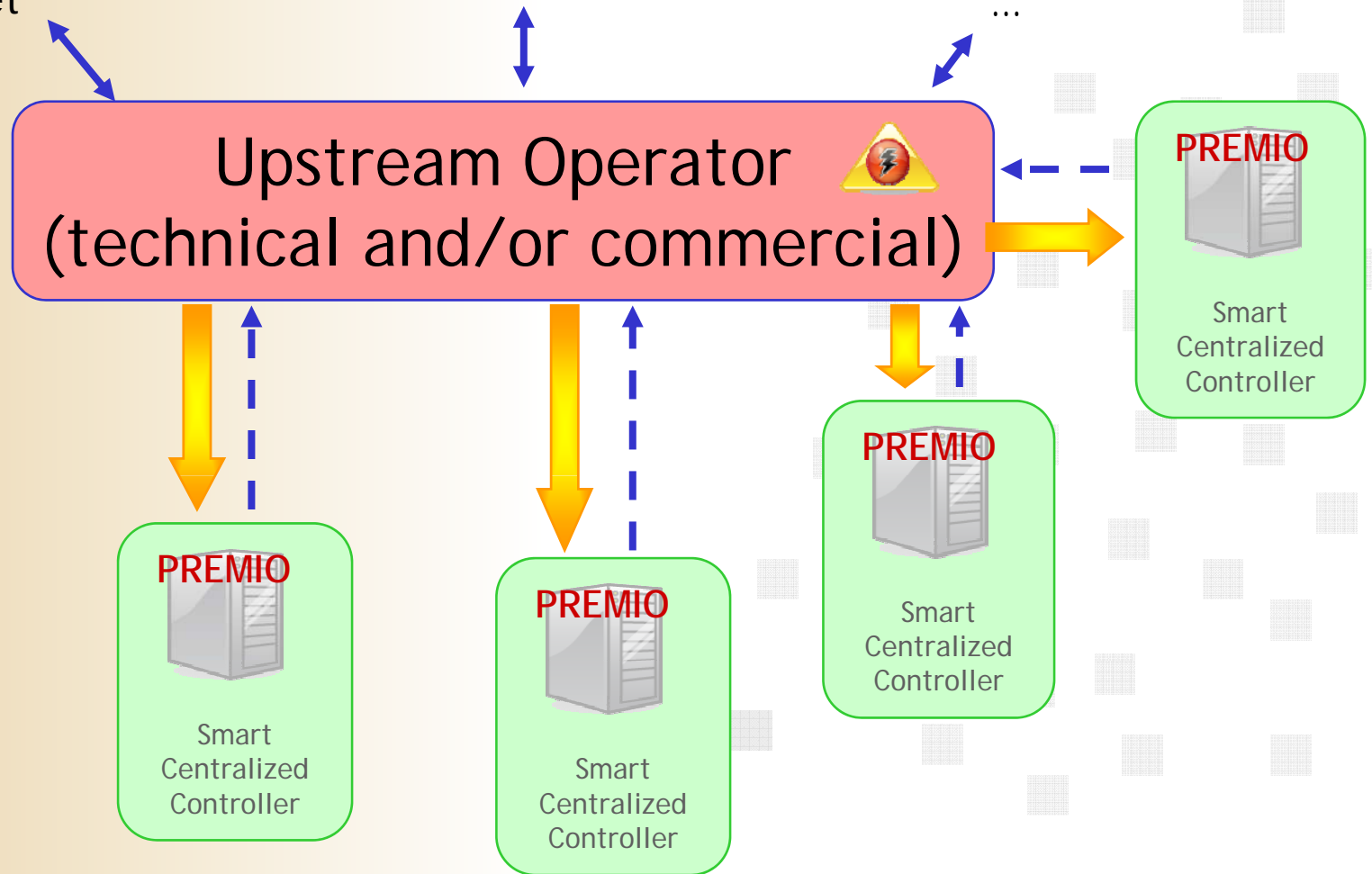


PREMIO tomorrow



SPOT
Market

Balancing Mechanism



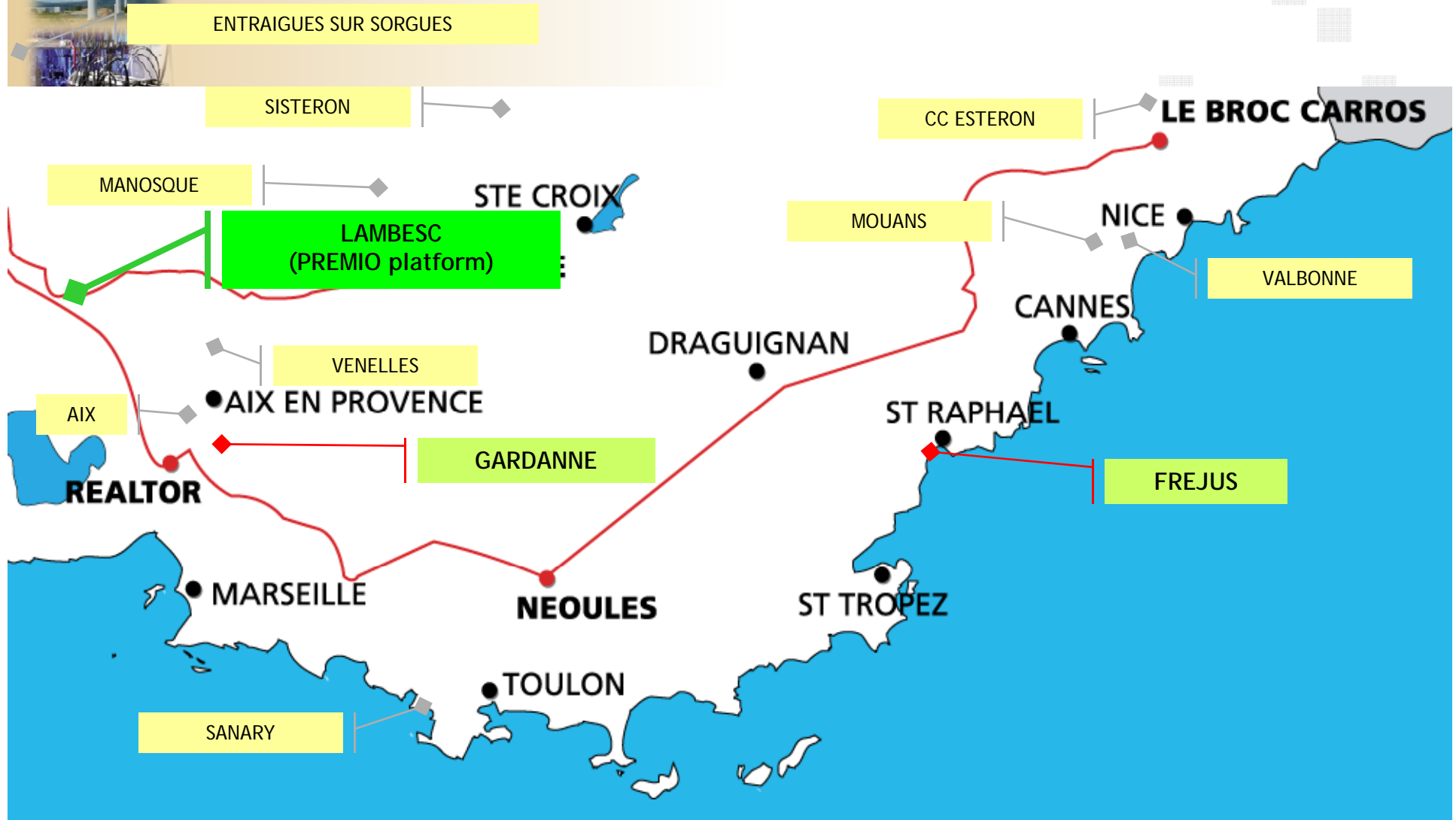
9 experiments in PREMIO as of today



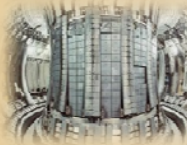
Experiments	Provider	Devices number	Potential Power Impact (kW) Summer/Winter
Reducing peak demand for electricity in domestic sector	WATTECO	20	25/150
Reducing peak demand for electricity in domestic and commercial sectors	EDF	35	90/300
Individual electricity storage with PV panels	EDF	40	40/40
Hot water storage/heat pump in domestic sector	EDF	10	0/35
Thermal energy storage for industrial refrigeration	CARMA	2	90/30
Hot water storage / Solar thermal energy	GIORDANO	1	10/5
Solar Power Generation and Thermal Storage	SAED	1	15/10
Biogaz valorization	VERDE SIS	1	65/65
LED public lighting management	WATTECO	20	0/0.7
	TOTAL		330/580 kW

PACA Region : 12 candidate communities (June 30)

1 winner and 2 laureates (September 22)



Project Time Schedule & Budget



□ Phase 1 : Studies (2008 - mid 2009)

□ Phase 2 : Operating phase

- Installation : 01/2009 to 07/2009

- Operation : summer 2009 to winter 2010

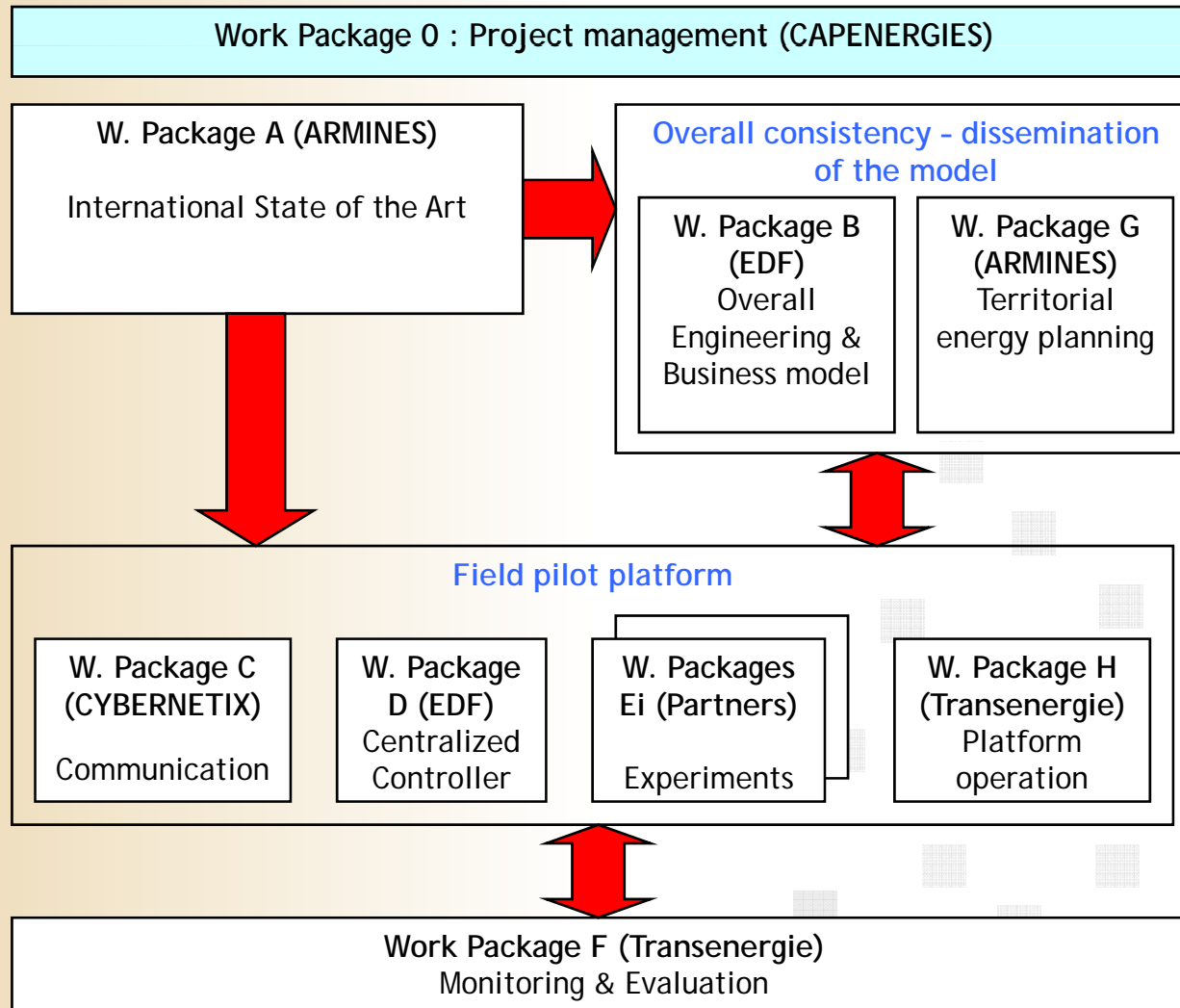
- Final Results : spring 2011

□ Budget=4.3 M€ (1.2 M€ Studies and 3.1 M€ Operating phase)

- 50 % funding by PACA Region (AGIR program)

- 50 % funding by project partners (40%x50% by EDF)

Organization of the PREMIO project



Thank you for your attention !

www.capenergies.fr

