



Journée TIC-Sécurité

Horizon 2020

**Session d'émergence de projets
et de présentation des compétences**

Paris, 10/02/2015



CEA Tech DPACA



- **Two sites in Provence**

- Centre Microélectronique de Provence Georges Charpak, 880 Avenue de Mimet, 13541 Gardanne.
- CEA Cadarache, 13108 St Paul Lez Durance.

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- **Brief description of the company :**

- The Provence branch of the CEA Tech (which includes the CEA Leti, the CEA List and the CEA Liten institutes)
- Objective is to work with the local industrial partners and academics on topics addressed by the CEA Tech (including Leti, List, Liten).
- **Local expertise in hardware security:** side channel & fault attacks, reverse-engineering, implementation of crypto algorithms (AES, SHA3, ECC, PBC...), emerging NVMs...
 - Long track record of EU projects: **SECRICOM, BEAT, HINT, PCAS...**
- Local expertise also in more 'applicative domains' like system's monitoring, connected homes, energy distribution...



Expertise



- **Offer :**
 - **Hardware security: physical attacks and countermeasures on ICs/memories and embedded cryptography:**
 - Secure implementations of Pairing Based Cryptography & Light Weight Cryptography
 - Embedded hardware countermeasures against conterefting and Hardware Trojans
 - Security of emerging Non Volatile Memories.
 - Advanced side channel attacks.
 - **With the opportunity to have practical use-cases and demonstrators based on other topics addressed in DPACA:**
 - Multi-agent systems for systems' monitoring and management (IoT, smart grids...)
 - Energy transport & distribution
 - Smart home for energy management
- **Potential partner requirements :**
 - **CEA Tech DPACA has quite some assets to address and host 'real-life' demonstrators for securing smart-home applications or smart grids.**
 - Given the on-site expertise
 - Given the on-site available infrastructure: 'Cité des Energies'
 - Given the fact that we have access to the technologies of the other CEA Tech institutes.
- **Identified call(s):**
 - **DRS-12-2015:** Critical Infrastructure Protection topic 1: Critical Infrastructure "smart grid" protection and resilience under "smart meters" threats
 - **DS-5-2015:** Trust eServices