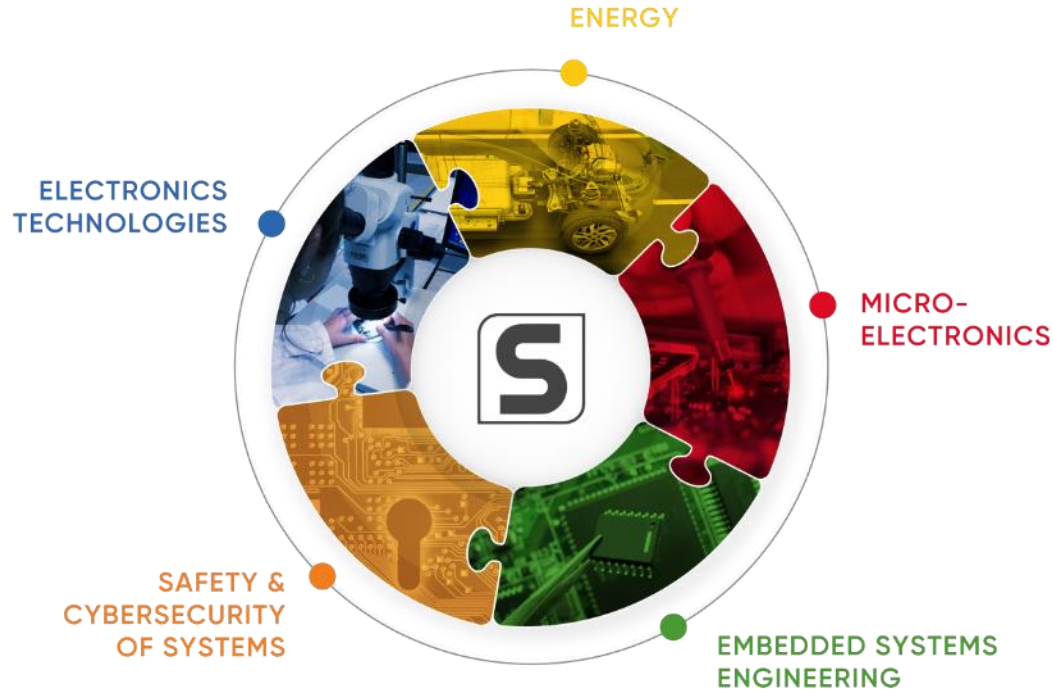


# Experience with Cleansky projects

03/02/2020

# An offer serving 5 core segments



## Types of Services

- ▶ Expertise
- ▶ Consulting
- ▶ R&D
- ▶ Engineering support
- ▶ Testing and qualification
- ▶ Products development and production upon Customer specification
- ▶ Formal evaluation



# 01

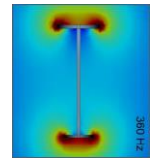
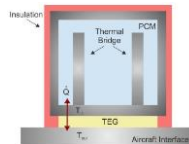
## 6 Projects won since 2011

StrainWise, FlightWise, AmpWise, Hipnosis, Peggassus & SmartWise

# Few around Autonomous Wireless Sensors

From 2011, four different Cleansky projects around Autonomous Wireless Sensor, with the same consortium (CSEM, Imperial College & SERMA)

- StrainWise : Strain gauge measurement & thermal energy harvesting,
- Flite Wise : Pressure measurement & magnetic energy harvesting,
- AmpWise: AC & DC Current measurement & inductive energy harvesting,
- SmartWise: Acceleration and shocks measurement & different energy harvesting

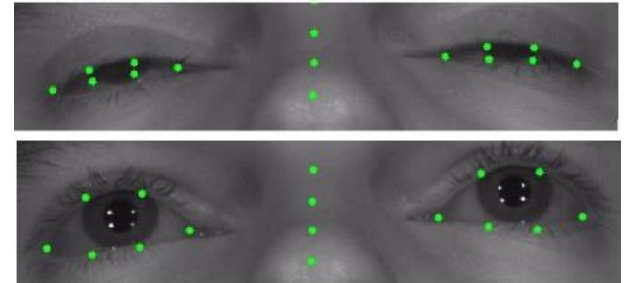


# Hipnosis

**HIPNOSIS:** Hardware Implementation of Pilot-Non-intrusive cOgnitive States Identification System.

Goal: Detection of drowsiness and fatigue of pilots, from cameras under NIR illumination and wristband vital signs.

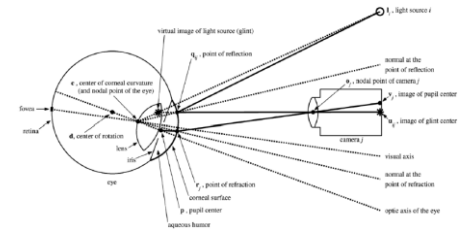
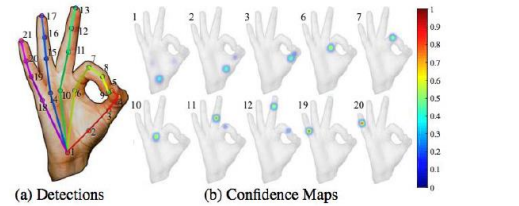
- Eye blinking,
- Yawning,
- Head loosening,
- Incessant movements



## Pegasus (Pilot Eye Gaze and Gesture tracking for Avionics Systems using Unobtrusive Solutions)

Goal: Develop a crew interface and monitoring system based on eye gaze, face and gesture tracking technologies.

- Maximizing the safety of the flight ,
- Enhancing crew operational efficiency,
- Take advantage of these new interfaces to imagine new cockpits,



# 02

## Advice

# Points of vigilance

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- ❖ Build a consortium to address all issues
- ❖ Have an homogeneous work-sharing with a balanced budget
- ❖ Already have know-how in the field to capture the interest of the European Commission
- ❖ Provide a good risk analysis and the mitigation measures
- ❖ Do not respond to subjects you wish to acquire
- ❖ Provide a detailed planning of the project development
- ❖ Well detailed the list of deliverables and the partners responsibilities
- ❖ Do not neglect the knowledge dissemination aspects and communication activities
- ❖ Provide a matrix which give the covering between the required competencies and the partners
- ❖ Clearly state the ambition of the project





# Clean Sky Project Key points

## **Constitution of the consortium:**

- Knowing your partners well is a plus
- Prefer mixt consortia (Academic, laboratory, industrial)
- Knowledge of the aeronautical environment by one of the partners is an asset.
- Use ASV for your partner search

**Response to a call:** Once consortium is formed, plan a workload about 1,5 to 2 people per partner, spread over 4 months

**Project organization:** At each partner, identify a project manager, then people to work on. Number is depending of each project and the distribution over time, depends on the phases and the roles of each.  
No experience as leader, but this rule required few weeks a year, with a 3 or 4 coefficient for the first time.