



# ACAMS II

Adaptive Camouflage for the Soldier

## Workshop & Technical Demonstration

New developed equipment for personal camouflage

**January 27<sup>th</sup> 2022**

Paris, France

### System Facts

Protection against detection in VIS – TIR – Radar  
Combination of different adaptive technologies (LED, thermochromic materials, radar absorbing layers)  
Integration in a multilayer structure

### Results

European collaboration generating defense benefits.  
Ergonomic and operational systems: two adaptive camouflage prototypes.  
Field trials evaluation: ergonomics, performance and operational aspects.

## Agenda

- 10.30** Coffee
- 11.00** Welcome
- 11.20** Project Overview
- 12.45** Lunch
- 14.00** Demonstrations
- 16.30** Discussion
- 17.00** End of the day

### Location

#### SAFRAN CAMPUS

32 rue de Vilgénis  
91300 Massy, France  
N: 48.730942° / 48° 43' 51.39"  
E: 2.244706° / 2° 14' 40.94"

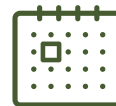
*Sanitary Pass requested*



This project has received funding from the European Union's Preparatory Action on Defence Research under Grant Agreement No 800871.

# Adaptive Camouflage for the Soldier

was developed in a European collaboration. The adaptive camouflage aims at increased protection against detection in a dynamic threat environment. This is achieved through using technologies operating in a broad wavelength range (VIS – TIR – Radar). The design takes into account mobility, comfort and ability to act in an operational context.

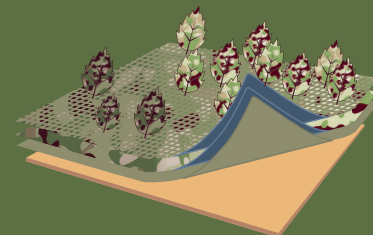
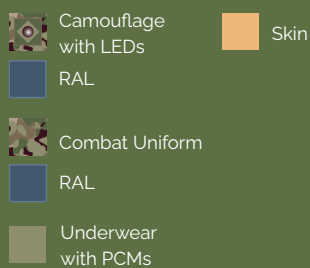
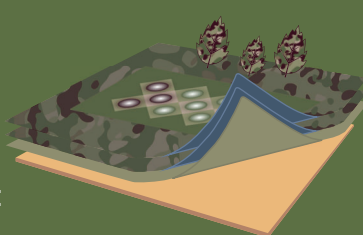


**Project Duration**  
43 MONTHS

## Combination of Technologies

Integration of several technologies in a multilayer combat clothing system:

- Light Emitting Diodes (LEDs)
- ThermoChromic Pigments (TC)
- Radar Absorbing Layer (RAL)
- Phase Change Materials (PCMs)



## Pixel Pattern

Control unit and software is implemented to adapt the LED pattern and colours to the background and lighting conditions using a light sensor and scene camera.

## Radar Absorbing Layer

The back of the outer fabric is provided with a radar absorbing lining: a thin fabric with conductive polymers. The attenuation in the fabric is measured at different frequencies.

## Utility

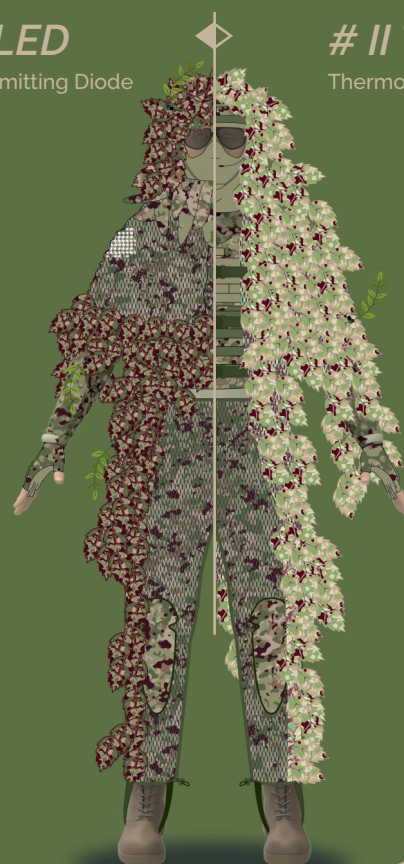
To validate military utility and usability of the system tests in relevant environments have been performed on functionality in several wavelength ranges simultaneously. Comfort tests and life cycle analysis have been carried out and production costs have been calculated.

## # I LED

Light Emitting Diode

## # II TC

Thermochromics



## Contact

More information can be obtained from your national point of contact or the project coordinator Hans Kariis, kariis@foi.se.

**Last day of registration 20th December 2021.**



[www.acamsii.eu](http://www.acamsii.eu)