



# EURIPIDES FORUM in Graz June 13<sup>th</sup>-15<sup>th</sup>, 2012

# SINETRA Smart INtEgraTion for Rescue TeAms Leader: CASSIDIAN (FR)

The **SINETRA** System is dedicated to PS organizations (First responder, fireman, policeman, rescuer) operating outdoor and indoor

The first responder is equipped with sensors which measure information such as his location (indoor and outdoor), his health parameters and his environment parameters

After local processing, data are:

- processed before transmission and stored for after crisis management
- displayed to the First Responder himself
- uploaded to the Mobile Command Centre

The SINETRA System is embedded in the suit of the user, it is an industrial proof of the so-called wearable PMR concept

### Consortium overview

CASSIDIAN (FR - FI) - SOFILETA (F) - FRANCITAL (F) - FhG IZM (Ge)  
CETEMMSA (Sp) - HYPERTAC (F) - TWINLIX (F) - ADTEL (Sp) - VARTA  
µB (Ge)  
Interactive-WEAR (Ge) - ESYS (Ge) - TRADIA (Sp) - FICOSA (Sp) -  
MICROOLED (F) MOVEA (F) - VTI (Fi) - TTY-SÁÄTIÓ (Fi) - IRIS (Ge) -  
HEIMANN (Ge)

### Project objectives

The SINETRA system aims at providing Public Safety users with dedicated services (location, cartography and navigation, user monitoring and environment monitoring...) provided by sensors and technologies to be embedded in the user's suit : the main innovation is therefore the integration of wearable computing and electronics into personal protective equipment and work wear combined with professional communication system : Integration of microelectronic components into textiles still means typically independent units which are attached to the textile or concealed in the textile structure

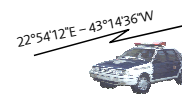
=> The SINETRA program will transform this research activity into product vision for professional markets with wide spread technology acceptance by end users and integration into sophisticated communication system.

### Keywords

Smart clothes, textile, wearable computing & electronics, embedded sensors, Interconnection & Packaging, Heterogeneous Integration

### Fields of Application

SINETRA is missions oriented for Fire Brigades operating outdoor (forest fires, water flood, earthquakes...) and/or indoor (underground, parking, critical infrastructures...), police forces in typical mission (ID control) or urban guerrilla, rescue teams, lonely worker (power plant, seamen...)



### Project Solutions / Results

The services to be provided to the end-user are E2E emergency & location, cartography (navigation, POI...), user monitoring (dead man alarm, heart rate, T°...), environment monitoring (C, T°, explosive...), vision capability improvement (visible, IR), SW services (database, automatic report).

These services lead to huge technical requirements: hands free (easy to wear, discreet), autonomy (reduced consumption + chargers), MMI (displays, keyboards, helmets), RF perfs (antennas, power) and connectivity (ad-hoc, gateways, DRM).