

ForLab Final Report: Executive Summary

The post blast scene in an IED-based attack covers a wide area where very small debris of the explosion are spread. Those debris can be easily missed by the specialists and differentiating general debris from "clue evidences" is a hard process that currently cannot be performed in field. Instead, a huge number of samples are usually collected in field and analyzed in one of the few existing specialized laboratories.

The main objective of the ForLab (www.fp7-ForLab.eu) is to increase effectiveness of the forensic teams providing a new tool to localize hidden evidences, discriminate real evidences from general debris, improving the capability to recreate the scenario and making the information about the investigation readily available to a commander in almost real time.

The project activities have been broken down into eleven work packages and are distributed across 36 months from March 2012 to February 2015.

The ForLab system is composed by the following main elements:

- Communication and positioning subsystem: To provide robust encrypted communication and accurate automatic position of the collected evidences
- Real time 3D scene recreation subsystem: To provide a navigable 3D model of the scene where the evidences are represented
- Command and control centre: To make all the information available on the investigation readily available in real time to a commander.
- Searching and screening technologies
 - LIF (Laser Induced Fluorescence) scanning system: To help to locate plastic and polymeric debris
 - LIBS and Raman field analysis system to discriminate samples containing traces of the explosive from non relevant samples
 - NLJD system: To help to localize electronic debris in the scene.

During the second week of September 2013, field tests of the individual technologies were carried out at a military training ground in Wroclaw (Poland). A short movie of this event has been prepared and uploaded to the ForLab website ("News and Events" section http://www.fp7-forlab.eu/?page_id=367).

Currently all the modules of the final system are available and have been integrated into a "ForLab system" that has been tested during one week in the Centre of Operational Practices of CNP located in Linares (south of Spain) during the last week of January 2015.

ForLab was successfully tested in three simulated, almost real scenarios: (1) explosion in a metro/train station, (2) mail delivered IED into an office, and (3) vehicle borne IED. The test week ended with workshop with End user of several European countries including a live demonstration of the use of ForLab