Objective

Terrorism is a real and growing threat to Europe and the world, and more than 60% of the terrorist attacks are carried out by the use of Improvised Explosive Devices.
Security forces demand new tools to fight against this threat and the industry is making a big effort in the last few years to provide such tools. Every year a number of new products to detect and identify concealed explosives reach the market but up to the moment these new systems do not meet the full operational capabilities demanded by the end users. Probably the most demanded by the end users is the capability for standoff detection and identification of explosives, in order to be able to anticipate the threat from a safe distance and to avoid entering into the lethality area of an Improvised Explosive Device (IED). Such standoff detection capability is also very demanded for intelligence operations to identify materials, people or places involved in the preparation and transportation of explosives. In order to meet the end user’s needs, OPTIX will develop of a transportable system for the standoff detection and identification of explosives in real scenarios at distances of around 20 m (sensor to target), using alternative or simultaneous analysis of three different complementary optical technologies (LIBS, RAMAN, IR) and with the following characteristics:

• Standoff distance of at least 20 m.
• Detection of explosives in bulk, trace amounts and even liquids in certain conditions.
• Very fast detection and identification of explosives
• Very high specificity for the identification of explosives.
• Large operational availability of the system.
• Fully automated decision system (no operator dependence).

In order to be successful, end user’s involvement in OPTIX is essential in the system specifications and validation, and in this sense the OPTIX consortium has put a special effort in including end users in those parts of the project where their contribution is relevant.

Field of science
/social sciences/economics and business/business and management/commerce

Programme(s)

Topic(s)

Call for proposal
FP7-SEC-2007-1

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