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EURITRACK

European Illicit Trafficking Countermeasures Kit

EURITRACK aims at increasing the security of European seaports by developing a Kit which non-intrusively detects explosives or other dangerous material hidden in shipping containers.

Shipping is a key international industry; 95% of the world's cargo is moved by ship, corresponding to over 200 million containers per year exchanged between major seaports. This huge movement leads to the risk that a container could be used by a terrorist group. As a consequence, the maritime industry must very seriously consider any potential threat for disruption of the trade.

Today, inspections of containers are largely based on X-Ray or Gamma Ray systems, but these provide limited information about objects inside the container, e.g. their shape and density.

Controllers cannot always distinguish between harmless and dangerous materials and need additional information about the chemical composition of suspect items in order to detect illicit material such as explosives, drugs or dirty bombs.

The largest French container seaport (Le Havre)



Objectives

The project will offer end-users a very useful tool, more advanced than commercial off-the-shelf equipment, in order to optimise the time needed for inspection.

The system will consist of an innovative Tagged Neutron Inspection System (TNIS) that will non-intrusively allow an assay of the chemical composition of suspect contents detected by X-Ray radiography to be performed.

Software development is also a crucial part of the project since the innovation in the control system relies on the combination of two complementary techniques (TNIS & X-ray).

An embedded information system will implement decision-making algorithms, also taking data from electronic seals into account.

The complete concept will be validated in the largest French container seaport (Le Havre) by the end-users themselves: French Customs as leaders of a European Custom Expert Group.

The objectives in detail:

- ◆ *To develop a system able to ascertain the presence or not of threat materials or smuggled goods without opening a 20 or 40 foot container*
- ◆ *To secure seaports and international trade in the face of terrorism threats*
- ◆ *To provide tools for the fight against illicit trafficking*
- ◆ *To help European Union (and Customs Representatives) to improve crisis management*

Description of the work

The structure of the project is mainly guided by the development of the prototype.

We have chosen to divide the project into work packages and tasks linked to the different parts of the prototype and to the different phases of its development. Five classical steps of development have been identified:

- (a) requirement specifications;
- (b) design;
- (c) development;
- (d) tests and
- (e) final demonstration.

The third step is itself divided into three parts corresponding to the three major components or modules of the prototype:

- TNIS;
- Information System (IS), the software part of the prototype;
- portal / mechanics.

Project Acronym: **EURITRACK**
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Contract Type: **Specific Targeted Research Project (STREP)**
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Duration: **36 months**
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Participants:

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