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LOTUS End User Workshop - Report

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Funding has been received from the European Commission's
Seventh Framework Programme (2007-2013)

Dissemination Level:
Public

Project No. 217925
LOTUS
Localisation of Threat Substances in Urban Society



D100.1

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Due date of deliverable:	April 30, 2009
Actual submission date:	April 30, 2009
LOTUS report no:	LOTUS TR-09-002
Number of pages:	8
Start date of project:	January 1, 2009
Duration:	3 years

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1 Summary

The LOTUS project aims to create a system by which illicit production of explosives and drugs can be detected during the production stage. The initial LOTUS End User Workshop described in this report and its annexes was intended to find out views of End Users on the LOTUS concept, its future use and the selection of substances to detect.

The Workshop was attended by thirteen End User representatives from nine EU nations, and fourteen experts from seven of the Consortium partners.

The perception among the End Users of the LOTUS concept was generally positive, and many valuable conclusions and comments were made that will be accounted for in the annexes of this report (ref 2, 3). Most End User participants were prepared to become members of a future reference group for the project and several nations declared an interest in participating in the final LOTUS system demonstrations.

2 Introduction

The concept and objectives of the LOTUS project are to create a system by which illicit production of explosives and drugs can be detected during the production stage. The demonstration system will be based on mobile sensors mounted in law enforcement and/or other vehicles under official control. Findings from the sensors (type and amount of substance, position and time) are sent, independent of any operator, to an operations centre display unit where the data are collected, evaluated, analysed and communicated for further action. Typically the LOTUS system would be operated under command of a criminal intelligence service.

Obviously the inputs from End Users – Police Forces, Criminal Intelligence Services and other Law Enforcement Agencies – are crucial and were needed at an early stage of the Project in order to assist the formulation of the requirements for the system. Hence an End User workshop was organised in Stockholm by the SECRAB Co., in collaboration with the FOI and the Portendo Co..

Preparations for the workshop had begun early in 2008 when the message was received from the European Commission that the LOTUS Project was approved. Participation in the workshop was solicited through two channels

- The Europol, through kind assistance by the Swedish National Police Board
- The European Council's Terrorism Working Group, which contains representatives of all EU member states. Professor Bo Janzon, SECRA B, made a presentation of the LOTUS Project and the workshop to this group on 9 July 2008.

The workshop was, initially, planned for September 2008. Since it proved not feasible to start the project at that time, mostly due to delays in getting the necessary EU security clearances approved for all Consortium members, which was an entirely new process for the European Union. It was then decided to move the Workshop to 4-5 November.

When that time approached the project had not yet started. Since a representative number of Europe's Police and Criminal Intelligence authorities had responded and registered participants it was decided to go on and organise the meeting regardless of the project's current status. Consequently, the cost of the workshop and the work effort necessary were essentially born by the FOI and the SECRA B Co, and by the Portendo Co. and the other Consortium Parties attending. The Workshop program is found in subannex 1.

The workshop organising committee consisted of
Professor Bo Janzon, SECRA B, chairman
Dr. Pierre Strömbeck, Portendo
Dr. Sara Wallin, FOI
Professor Henric Östmark, FOI

Valuable assistance with the organisation of the Workshop was provided also by Mr. Johan Safi, SECRA B and Mr. Rolf Andersson, FOI.

The requirement on the participants to present a valid EU Security clearance before being admitted to the Workshop was expected to cause problems, but in general did not! Only one potential participant (from a civilian University) could, regrettably, not manage to get the clearance ready in time, and had to give up participation,

The workshop was split up in three working groups, each treating one of the following subjects:

- Need for and possibilities of the LOTUS system
- Typical substances to look for.
- Tactical application of the LOTUS system

The results of the Working Groups were then presented and discussed in plenary.

Some participants made short presentations, which are separately on a CD, ref 4 (Restreint UE).

In the report, the conclusions, comments and discussion from the working groups will be presented in annexes 1 (Groups 1 and 3, Restreint UE) and 2 (Group 2, Confidential UE). The texts presented by the groups, and the comments made have been edited for clarity. Comments or additions made by the authors will be *written as italics*, mostly as footnotes.

3 The Workshop

The concept and objectives of the LOTUS project are to create a system by which illicit production of explosives and drugs can be detected during the production stage. This stage forms a window of opportunity, usually of substantial time duration, to locate, pinpoint and initiate action against the perpetrators. The demonstration system to be created within the Project will be based on mobile sensors mounted in law enforcement or other vehicles under community control. Findings from the sensors (type, amount of substance, position, time) will be transmitted, independent of any operator, to an operations centre display unit that collects, evaluates and analyses the data and disseminates the results for further action.

The workshop was attended by thirteen End User representatives from nine nations, i.e. Austria, Belgium, Czech, Denmark, Italy, Romania, Spain, Sweden and the United Kingdom. From the Consortium there were fourteen participants from seven of the Partners. A participant list is found in annex 1.

There was a requirement on the participants to present a valid EU Security clearance before being admitted, and this was expected to cause problems, but in general it did not! Only one potential participant (from a civilian University) could not manage to get the clearance ready in time, and, regrettably, had to give up participation.

The results are presented in the annexes to this report (ref. 2, 3, 4). The report will be distributed to the European Commission, all Workshop participants and all LOTUS partners who are properly security cleared. Other qualified and properly cleared recipients may obtain the report by request and presentation of clearance documentation to the FOI.

As a basis for the Workshop SECRA had made a study of explosive and drug recipes that could be found on the Internet (ref 1). By request from the participating End User representatives this study was later widened to some Chemical Warfare Agents. That report will be distributed to the same list of recipients as the Workshop report.

4 Workshop evaluation

At the end of the Workshop the participants were asked to complete a survey concerning the LOTUS concept and the Workshop. The results were as follows:

LOTUS End User Workshop Enquiry answers of End User representatives	Result [%]
How did you receive information about this workshop?	
From Europol	27
From a colleague	18
Other (for example the European Council's Terrorism Working Group)	55

Enquiry answers of End User representatives	Result [%]
What Working Group did you participate in?	
1 Need for and possibilities of the LOTUS system	45
2 Typical substances to look for	18
3 Tactical application of the LOTUS system	36
How did you find the discussions in your group?	
1 Not interesting	0
2	9
3	36
4	36
5 Interesting	18
How did you find the presentations in plenum?	
1 Not interesting	0
2	9
3	36
4	45
5 Interesting	9
How useful do you think the LOTUS concept will be to law enforcement?	
1 Not at all	9
2	0
3	36
4	27
5 Highly useful	18
Are you and your organisation interested in participating in the Field trials and Demonstration?	
1 Not at all	18
2	0
3	18
4	27
5 Very much	18
If you are interested to participate, do you think that you can convince your organisation to commit to this?	
YES	9
NO	27
I do not know but I shall try	27
Are you willing to be part of the End User group of LOTUS, being a reference group that the project can consult if needed?	
YES	73
NO	0
I do not know	27

Thus in general the attitudes towards the LOTUS concept were favourable, and several participants and nations were interested in becoming members of a future reference group for the project as well as participating in the final demonstrations of the LOTUS System.

5 References

1. Safi J, Janzon B: *Internet Recipes for Explosives, Drugs and Chemical Agents*. LOTUS Memorandum Report LOTUS-MR-09-001, (Restreint UE), March 2009
2. Janzon B, Safi J: *LOTUS - End User Workshop. Tactical application, need for and possibilities of the LOTUS system*. LOTUS Technical Report LOTUS-TR-09-002, Separate annex 1 (Restreint UE), April 2009
3. Janzon B, Safi J: *LOTUS - End User Workshop. "The Threat"- which substances to look for*. LOTUS Technical Report LOTUS-TR-09-002, Separate annex 2 (Confidentiel UE), April 2009
4. Janzon B (ed.): *LOTUS End User workshop. Presentations*. LOTUS Technical Report LOTUS-TR-09-002, Separate annex 3 (CD, Restreint UE), April 2009

LOTUS FIRST END USER WORKSHOP

4-5 November 2008

at the FOI Conference Centre, Kista, Stockholm, Sweden

address: Gullfossgratan 6, Kista Science City

PROGRAMME

Tuesday	4 November 2008	Presenter/Responsible
	Plenary	
0915	Registration and security clearance check opens. Tea and coffee available	Bo Janzon, Johan Safi Sponsored by FOI
1000	Introduction, general presentation of the participants	Bo Janzon
1030	Presentation of the LOTUS Project	Sara Wallin, Henric Östmark
1130	Presentation of the Consortium partners	Sara Wallin and others
1200	Lunch , at Kenth's (across the yard!)	Sponsored by FOI
1330	Presentations by Participants: IEDs and Illegal Explosives - A UK view Production of Homemade Explosives in the Czech Republic Investigations of Explosives (and Drugs?)	Representative of the UK Representative of the Czech Republic Representative of Sweden
	Working groups <i>1 Need for and possibilities of the LOTUS system</i> <i>2 Typical substances to look for</i> <i>3 Tactical application of the LOTUS system</i>	
1415	Working group definitions and assignments Working groups commence work	Bo Janzon
1445	Tea and Coffee	Sponsored by FOI
1700-1815	End of Working Day	
1830	Refreshments, at the FOI Conference Centre	Sponsored by SECRA B
1900	Joint buffet dinner, at the FOI Conference Centre	No-host

Wednesday 5 November 2008		Presenter/Responsible
0900	Plenary	
	Short Working Group interim reports	Group Chairs / Rapporteurs
	Working groups	
0930	WGs reconvene, continued work	Group Chairs
1000	Tea and Coffee	Sponsored by FOI
	Finalisation of work in WGs	
1200	Lunch , at Kenth's	Sponsored by FOI
	Plenary	
1300	WG final presentations Discussions and recommendations	WG Chairs and Rapporteurs, Bo Janzon
1500	End of Workshop	
1500	Tea and Coffee available	Sponsored by FOI

LOTUS has received funding from the European Community's Seventh Framework Programme (FP7/2007-2013) under Grant Agreement No 217925.

The overall objective of the LOTUS project is to develop a new anti-terrorism tool for law enforcement agencies, in the form of an integrated surveillance system for continuous chemical background monitoring with fixed site and/or mobile detectors to identify "chemical hotspots" such as bomb or drug factories.

The LOTUS project aims to create a system by which illicit production of explosives and drugs can be detected during the production stage rather than preventing terrorist at-tacks while they are already in motion, which is extremely difficult.

The LOTUS concept is aimed at detecting chemical signatures over a wide urban area. The detectors may be placed at fixed positions although most detectors should be mo-bile. These distributed detectors continuously sample air while its carrier performs its daily work. When a suspicious substance is detected in elevated amounts, information about the type, location, amount and time is registered and sent to a data collection and evaluation centre for analysis. Several indications in the same area will trigger an alert, enabling law enforcement agencies to further investigate and respond.

LOTUS is a collaboration between:

FOI | AIT | Bruhn Newtech | Bruker | Portendo | Ramem | SAAB | Secrab | TNO | Universitat de Barcelona

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