

EUDEM Research Survey

EUDEM2 Questionnaire2 (Research Centers/University Labs/Governments (R&D))

Interviewer: Claudio Bruschini

PART I: Relationship with military/humanitarian demining. Problem knowledge.	DATE: 08/07/2003
Organisation (name + web address) Dipartimento Ingegneria Elettronica e Telecomunicazioni, Università di Firenze (DIE/UniFI) Contact Person (name + e-mail): Lorenzo Capineri , capineri@ieee.org	
Level of knowledge/understanding in military demining:	(1:none, 5: in depth) 2
Level of knowledge/understanding in humanitarian demining:	(1:none, 5: in depth) 3
No. of years involved in HD:	6
Details (type of involvement): GPR based landmine detection and classification.	
Main sources of information on humanitarian demining: <input checked="" type="checkbox"/> direct contacts with deminers, (1:little, 5: mostly used) 2 <input type="checkbox"/> field visits, (1:little, 5: mostly used) <input checked="" type="checkbox"/> literature, (1:little, 5: mostly used), which literature source is used on a frequent basis 4 Journal: IEEE Transactions on Geoscience and Remote Sensing, IEEE Trans. Antennas and Propagation, INSIGHT <input checked="" type="checkbox"/> Internet, (1:little, 5: mostly used), which site is used on a frequent basis 4 Web address: EUDEM (www.eudem.info)	
Frequency of field visits: 1: none; <input checked="" type="checkbox"/> 2: sporadically (once a year) 3: regularly (several times a year) Where: indicate geographical zones/countries:	
Frequency of contacts with deminers: 1: none; 2: sporadically (once a year) <input checked="" type="checkbox"/> 3: regularly (several times a year) Who (names + contact details): Mario Sepe, ABC Firenze	
Knowledge of demining operations: (ex. SOPs (Standard Operating Procedures))	(1:none, 5: in depth) 2
Details: Interest in possible operating procedures for the field use of GPR.	
Knowledge of deminers' requirements: (ex. SORs (Statements Of Requests), "wish lists")	(1:none, 5: in depth) 1
Details:	
Financial Sources of your research activities (who is financing the research carried out): University of Florence, Italian CNR	
Would you like to know more on humanitarian demining (yes/no/yes and already planned): What and at which frequency: <input checked="" type="checkbox"/> ad hoc courses, <input checked="" type="checkbox"/> field visits; <input type="checkbox"/> weekly	

monthly updates

Knowledge of the UXO problem (Unexploded Ordnance): (1:none, 5: in depth) 3

UXO problem taken into account in your research: (1:no, 5: fully) 1
How has it been taken into account? (describe)

Technologies studied (list which ones) :

GPR

MD

Combined multi sensor detection systems (details, which sensors)

mechanical equipment

remotely operated detection systems

remotely operated area reduction systems

chemical systems (eg. Biosensor)

Kind of research (applied or fundamental):

Short Term

Long Term:

In which application areas:

hand held

vehicle based

air borne

Aimed at

AP

AT

UXO

Overlaps between technologies from other application domains (e.g. medical/geoscience): which ones and how?

Non-Destructive Testing, sensors and algorithms for imaging applications and defect detection and characterisation.

Research activities related to a specific country or area: **NO**
(ex. Cambodia)

PART II: Knowledge of other (R&D) activities, esp. EC.

Knowledge of ongoing EC R&D projects related to humanitarian demining: (1:none, 5: in depth) 3

Knowledge of other R&D projects related to humanitarian demining: (1:none, 5: in depth) 3

Details: **ISTC projects (Intl. Science and Technology Cooperation??).**

Would you like to know more on current research activities

yes

no

yes and already planned: Information on FP6 calls, and EoI.

What and at which frequency:

newsletter,

workshop,

conference,

e-mail;

weekly updates

monthly updates

Preference for “push” or “pull” technique: pull (receive mails)
(ex. receiving possibly unsorted e-mail, or looking up oneself and selecting the information)

PART III: Involvement in Product/System testing.

Have you already been involved in equipment testing: **NO**
(yes, ongoing, no)

Details:

Do you have own test facilities? (Yes/no) **NO**

Which ones?

- sand box indoor
- sand box with environmental control facilities indoor
- sand box outdoors
- sand box with environmental control facilities outdoors
- dummy minefields in controlled conditions
- dummy minefields in less controlled conditions (eg. Croatia, Angola etc)

What kind of tests are performed?

and how?

- own test methods
- ITEP proposed methods
- nationally indicated methods?
-
-

Is any further equipment testing planned:

(none; in the lab, under internal controlled conditions, under external controlled conditions, in the field)

Details:

Type of product/system at which you are aiming + indication of how (with which funding/partners):

What is the state of maturity of your programme?

Research,

Breadboard (preliminary assembly of hardware to prove feasibility of proposed system, without regard to packaging, reliability or, often, safety).

Prototype,

Pre-Production,

Production (if so what volume has been produced to date and what is the planned production rate per annum).

What further budget will you require to reach each stage?

Have you used your: equipment / prototypes / research breadboards on test sites?

What test sites?

How many mines?

What type?

What performance statistics did you obtain?

What sample set size did you use?

What soil weather conditions did you use?

How did the operators perform?

What was their response / performance

Assuming budget availability, how soon could you personally carry out demining operations with your equipment? in days, weeks months years?

Are you taking into account social studies: **NO**

socio-economic surveys/

environmental factors/

physical limitations of the technologies/

operational scenarios:

How:

Do you disseminate the results? **YES**

How?

Participation to conference

Scientific Journals

other specialised publications

JMU/MAIC?

PART IV: General Comments:

Comments on the EUDEM2 initiative in general: **Very useful.**

Questionnaire: Useful.

Comments on the concept of an Open, Detailed Web based Database/Information Center (ex. EUDEM2):

Very good, well structured and exploitable.

For EC projects only: what exploitation plans exist and when will the first pre-production models be available for evaluation?

Comments on the way EC projects are financed, suggestions:

Too little focus on practical aspects/solutions (for the demining problem) and on the involvement of universities.

**Please send us a copy of your reference material together with the fully approved complete questionnaire by separate mail to the following address:*

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