

# EUDEM Research Survey

## EUDEM2 Questionnaire2

### (Research Centers/University Labs/Governments (R&D))

Interviewer: Claudio Bruschini

<b>PART I: Relationship with military/humanitarian demining. Problem knowledge.</b>		DATE: <b>22/10/2003</b>
Organisation (name + web address) <b>National Institute of Advanced Industrial Science and Technology (AIST)</b>		
Contact Person (name + e-mail): <b>Shigeru Kurosawa, Ph.D, shigeru-kurosawa@aist.go.jp</b>		
Level of knowledge/understanding in military demining:	(1:none, 5: in depth)	<b>1</b>
Level of knowledge/understanding in humanitarian demining:	(1:none, 5: in depth)	<b>2</b>
No. of years involved in HD: <b>Just started to construct biosensor detector.</b>		
Details (type of involvement): <b>Sensing and access technology (platform) will be developed at AIST (Japan).</b>		
Main sources of information on humanitarian demining:		
<input checked="" type="checkbox"/> direct contacts with deminers, (1:little, 5: mostly used)		<b>1</b>
<input type="checkbox"/> field visits, (1:little, 5: mostly used)		<b>None</b>
<input checked="" type="checkbox"/> literature, (1:little, 5: mostly used), which literature source is used on a frequent basis		<b>4</b>
Journal: <b>Analytical Chemistry, IEEE IFC or IEEE Trans. UFFC, Biosensor and Bioelectronic Journal.</b>		
<input checked="" type="checkbox"/> Internet, (1:little, 5: mostly used), which site is used on a frequent basis		<b>3-4</b>
Web address: <a href="http://diwww.epfl.ch/lami/detec/">http://diwww.epfl.ch/lami/detec/</a> & <a href="http://etro.vub.ac.be/minedet/">http://etro.vub.ac.be/minedet/</a>		
Frequency of field visits: <b>1</b>		
1: none;		
2: sporadically (once a year)		
3: regularly (several times a year)		
Where: indicate geographical zones/countries:		
Frequency of contacts with deminers: <b>1</b>		
1: none;		
2: sporadically (once a year)		
3: regularly (several times a year)		
Who (names + contact details):		
Knowledge of demining operations:		(1:none, 5: in depth) <b>1</b>
(ex. SOPs (Standard Operating Procedures))		
Details:		
Knowledge of deminers' requirements:		(1:none, 5: in depth) <b>1</b>
(ex. SORs (Statements Of Requests), "wish lists")		
Details:		
Financial Sources of your research activities (who is financing the research carried out):		
<b>AIST (Japanese government).</b>		
Would you like to know more on humanitarian demining (yes/no/yes and already planned): <b>Yes</b>		
What and at which frequency:		
<input type="checkbox"/> ad hoc courses,		
<input type="checkbox"/> field visits;		
<input type="checkbox"/> weekly		
<input checked="" type="checkbox"/> monthly updates		

Knowledge of the UXO problem (Unexploded Ordnance):	(1:none, 5: in depth) <b>1</b>
UXO problem taken into account in your research: How has it been taken into account? (describe)	(1:no, 5: fully) <b>1</b>
Technologies studied (list which ones) :	
<input type="radio"/> GPR <input type="radio"/> MD <input type="radio"/> Combined multi sensor detection systems (details, which sensors) <input type="radio"/> mechanical equipment <input type="radio"/> remotely operated detection systems <input type="radio"/> remotely operated area reduction systems <input checked="" type="radio"/> <b>chemical systems (e.g. Biosensor)</b> <input type="radio"/>	
Kind of research (applied or fundamental):	
<input type="radio"/> Short Term <input checked="" type="radio"/> <b>Long Term:</b>	
In which application areas:	
<input checked="" type="radio"/> <b>hand held</b> <input checked="" type="radio"/> <b>vehicle based (possibility)</b> <input type="radio"/> air borne <input type="radio"/>	
Aimed at	
<input checked="" type="radio"/> AP <input type="radio"/> AT <input type="radio"/> UXO <input type="radio"/>	
Overlaps between technologies from other application domains (e.g. medical/geoscience): which ones and how?	
<b>Immunosensor, biosensor, chemical sensors: environmental sciences, clinical usage. See: Shigeru Kurosawa, et al., Meas. Sci. Technol. 14 (2003) 1882–1887, « Immunosensors using a quartz crystal microbalance »</b>	
Research activities related to a specific country or area: <b>None (maybe Afghanistan, and Cambodia).</b> (ex. Cambodia)	
<b><u>PART II: Knowledge of other (R&amp;D) activities, esp. EC.</u></b>	
Knowledge of ongoing EC R&D projects related to humanitarian demining:	(1:none, 5: in depth) <b>2-3</b>
Knowledge of other R&D projects related to humanitarian demining:	(1:none, 5: in depth) <b>2-3</b>
Details: <b>EUDEM2 mostly.</b>	
Would you like to know more on current research activities	
<input type="radio"/> yes <input type="radio"/> no <input checked="" type="radio"/> yes and already planned:	
What and at which frequency:	
<input type="radio"/> newsletter, <input type="radio"/> workshop, <input checked="" type="radio"/> conference, <input checked="" type="radio"/> e-mail;	
<input type="radio"/> weekly updates <input checked="" type="radio"/> monthly updates	
Preference for “push” or “pull” technique: <b>Receive E-mails.</b> (ex. receiving possibly unsorted e-mail, or looking up oneself and selecting the information)	
<b><u>PART III: Involvement in Product/System testing.</u></b>	

Have you already been involved in equipment testing: **Not yet (presently under construction).**  
(yes, ongoing, no)

Details:

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

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 **(as a possibility in the future)**

dummy minefields in less controlled conditions (e.g. Croatia, Angola etc)

What kind of tests are performed? **Not possible to answer at present.**

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:

- socio-economic surveys/
- environmental factors/
- physical limitations of the technologies/**
- operational scenarios:

How:

Do you disseminate the results?

How?

- Participation to conference
- Scientific Journals
- other specialised publications
- JMU/MAIC?

**PART IV: General Comments:**

Comments on the EUDEM2 initiative in general: **Great project!**

Questionnaire: **Some questions should be explained in easier terms.**

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

**Excellent information has been disclosed on the Website.**

**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:

**[For Japan: The Japanese government has recently started to fund national projects along different channels.]**

*\*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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