



## **Moving Forward on Technology**

### **What can we do, and how can we do it?**

by

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Distinguished Co-chairs and Co-rapporteurs, distinguished Delegates, ladies and gentlemen,

Can I start by thanking the Co-chairs for inviting me to speak on the difficult issue of how we can move forward on Technology. I use the word difficult, because many of you will recall the remarks made by Dr Alois Sieber at a previous Standing Committee, when he stated that the scientific community had not been able to introduce any new technologies at all, so moving forward may not be all that easy.

It is therefore too easy to blame the scientific community for this, but to my mind there are three communities involved, who have to learn to communicate and to combine much better than they do at present.



## **Communities involved in Mine Action Technology**

- ❑ **Users, and users representatives**
- ❑ **MBT States Parties and Donors**
- ❑ **The Research and Development (R&D) Community**

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These are: the field users, and users representatives and spokespersons, the States Parties and Donors to Mine Action, and the Research and Development community. All of these communities are fundamentally different, have varying aims and objectives, and speak almost different languages, making communication between them very difficult. I now want to discuss these communities in more detail, and at the end I will mention what my organisation, the GICHD, is doing to try to help the technological and communication processes.



## Users and Users Representatives

- ❑ **Must define their requirements better, and talk to others in an understandable language**
- ❑ **Must find better ways of communicating these requirements to R&D in technical terms**
- ❑ **Must create a peer review system to identify user-relevant R&D**
- ❑ **Must promote networking and collaboration between the field and R&D**

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We, the users, have our own language, and we do not communicate well with others. We try to make our needs known to the R&D community and others in a coherent way, but too often different mine action groups have very different demands, or put what are in fact the same demands in a totally different way, resulting in the demands for different but parallel equipment. We must learn to state our requirements in ways that the R&D and manufacturing communities can fully understand, if necessary by learning the technical terms that they use as their “language”.

We need to support R&D, but do so in a selective way. To do this, we must have a selection process. We are not qualified to do this selection for ourselves, so we need a peer review system that will do it for us. Last year, the GICHD suggested a peer review system, which I shall mention again in a moment.

We must go out of our way to facilitate understanding of the scenarios of mine action by outside agencies, by R&D organisations and by academe. This takes time and effort, but I believe that it will be worth it.



## Donors and MBT States Parties

- ❑ **Must support new technology - we need it**
- ❑ **Must maintain a technology forum in MBT**
- ❑ **Must support a peer review system**
- ❑ **Must review and support national mine action R&D programmes**
- ❑ **Must examine what might be the mine action situation in 2010**

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Technology is not a popular subject within the MBT. It lacks the donor appeal of victim assistance and other subjects, it is a long-term process with few tangible rewards, and there are some within the MBT process who do not believe that new technology is necessary at all. Ladies and Gentlemen, it is necessary. Mine clearance this year is almost as slow, costly and dangerous as it was last year, and the year before. This situation will not change by ignoring it.

For the same reason, a technology forum will certainly be retained, either as part of the Standing Committee process, or outside it. The MBT community cannot abrogate its responsibilities in this area by gently squeezing technology out of the agenda.

One year ago, the GICHD suggested a peer review system to oversee research and development, to try to reduce duplication and waste, and to provide an unbiased information system for the MBT. Again, some in the MBT have objected to this on the grounds that it might need a “secretariat”, which it does not, but no alternative waste reduction or information system have been suggested. I put it to you again, because I believe we need it.

States Parties should perhaps review their own R&D efforts, to ensure that they are producing tangible results. If they appoint a peer reviewer, they might find this a not too difficult task.

We also need to examine what the mine action situation might be in 2010, at present rate of progress. You never know - this might highlight the need for some new technologies!



## R&D Community

- ❑ **Must tell the users what they want to know**
- ❑ **Must involve the users from the concept onwards, and must visit the field**
- ❑ **Must work together as much as commercial reality allows. “Clusters” seem a good start**
- ❑ **Must stop wasting money by repetition**
- ❑ **Must set sensible aims for unit cost and date into service, and stick to them**
- ❑ **Must talk to others in understandable language**

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Many of the points I raise on this slide are the mirror images of the comments I have made about the other two communities, and most if not all involve communication with the field, and with other R&D agencies, which will be dealt with in more detail by the next speaker.

I must stress however that R&D organisations and manufacturers must set themselves time and cost targets. There is nothing strange in this - it is the accepted practice in most industries. Few developers these days dare to spend development money without knowing what segment of the market they wish to enter, when, and at what basic cost. Open-ended development creates waste.

That said, there are others who can describe the R&D scene, with its problems and limitations, better than I can, so I will leave further comments to the next speaker, my friend Dr Alois Sieber.



## What is the GICHD doing to help?

- ❑ **User Needs study**
- ❑ **Mine dog detection study**
- ❑ **Mechanical study**
- ❑ **Trying to act as interpreters between the languages of users, donors and R&D**
- ❑ **Participating in many technical fora**
- ❑ **Identifying areas which might need new technologies**

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So far, I have criticised other organisations, so I had better explain what we in the GICHD are doing about new technologies ourselves. Although we live in this nice high-tech building, we are not technologists per se. But we do carry out studies, with a technological bias. The first is the User Needs study, which will be published shortly. This aims to present what equipments are likely to make the biggest contributions in what types of terrain, or even in what regions, which can help equipment developers in their decision-making. There is probably even more that we can do, using this study as a springboard, to define user needs in more detail.

We are carrying out studies into mine detection dogs and mechanical equipment - dog studies are not particularly technical at first glance, but we have two universities and three R&D establishments engaged on it. Yes, we do take technical staff into the field, and yes, we did bring them in at the concept stage. The same will apply for the mechanical equipment study.

Some of our staff have research backgrounds, so we have some knowledge of the needs of R&D. Most of us are ex-deminers, so we know that language as well. We speak, and listen, at a number of technical fora world wide. We also examine all facets of mine action to see whether new technologies can be applied to them, and we have identified several areas, such as space mapping and imagery, where much more work needs to be done to get technological improvements into the field. I can assure you, there is much still to be done.



## Any Questions?



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