Summary report on delegate feedback at the ORFEUS workshop 19th June 2008 at Birmingham University UK

39 delegates

Following user presentations from the City of Dublin, the ORFEUS project team and an additional presentation from a GPR user - Enrico Boi of TST Engineering; the workshop concluded with a feedback session managed by Andrew Thomas of Mapping the Underworld (a project supported by the UK Engineering and Science Research Council), and Jo Parker of Vista (VISTA (Visualising integrated information on buried assets to reduce street works) is a collaboration of 21 organisations developing an integrated infrastructure to enable data sharing for all buried assets across Great Britain.). A summary of the delegate feedback session is recorded below. The workshop programme is below, and the additional session from TST engineering was inserted after the published timetable was published, and the presentations, as given on the day, were issued to delegates on CD-ROM. These event documents in electronic form may be available by contacting the ORFEUS project manager (howard.scott@osys.co.uk) **subject to administrative charges.**

Published programme

9:30 am – 10:00 am	**Arrival. Tea/coffee/registration**
10:00 am – 10:10 am	**Martin Morey/Howard Scott** Welcome and Introductions
10:10 am – 10:40 am	**Dave Pinchbeck of GERG, Brussels** Introduction to ORFEUS (objectives)
10:40 am – 11:10 am	**Derek Dixon, City of Dublin** Addressing the traffic flow and planning problems of street works in a congested city - the potential role of advanced plant location
11:10 am – 11:30 am	**Break for tea/coffee**
11:30 am – 12 noon	**ORFEUS team progress report:** **Guido Manacorda, IDS Pisa Italy** Developing an enhanced surface radar
12 noon – 12:30 pm	**ORFEUS team progress report:** **Elmar Koch, Tracto Tecknik, Lennestadt, Germany** Developing a new trenchless look ahead radar for mounting on Horizontal Drilling Equipment (HDD)

12:30 pm – 1:30 pm	**Buffet Lunch and Networking, Shell Lounge**
1:30 pm – 2:00 pm	**ORFEUS team progress report:** **Evert Slob, T U Delft, Netherlands** **Jarek Raclavsky, University of Brno, Czech Republic** Electrical characteristics of soils and the survey environment
2:00 pm – 2:30 pm	**Howard Scott, OSYS Technology , Newcastle upon Tyne, UK** Interpreting the research and the issues
2:20 pm – 2:40 pm fitted in to programme	**Enrico Boi. TST Engineering.** Update on user issues raised at the first ORFEUS workshop in Paris Sept 2007
2:30 pm – 3:00 pm	**Jo Parker of Project VISTA and Andrew Thomas of Mapping the Underworld, University of Birmingham** Discussion and tutorial session on applying GPR data to your existing GIS mapping base
3:00 pm – 3:15 pm	**Break for tea/coffee**
3:15 pm – 3:45 pm	**Martin Morey, OSYS Technology, Newcastle upon Tyne, UK** User feedback and user panel session Summary of feedback and its impact on the project.
3:45 pm – 4:00 pm	Experimental and operational systems demonstration(s) and University of Birmingham lab visit **(*please note - the end time of this session will vary considerably depending on delegates interest in the items shown)**
4:00 pm	**Workshop ends***

Summary of the 'white-board' outcomes from the closing session, and comments made by delegates in writing on the event feedback doccuments.

Feedback Session notes

(Jo Parker of Project Vista and Andrew Thomas of Mapping the Underworld)

The feedback session raised considerable discussion over the use, integration and confidence in, GPR data.

Delegates felt that once GPR data was presented, they were confident in making use of it. The main problem area users perceived was the accurate incorporation of GPR data, and the adequacy of the current GIS data in that context.

At a practical level, the use of, say, manhole positions to validate GIS data, and thus enhance the confidence in its use with GPR, was seen as a way forward. The concept of 'Ground Truthing' to give practical observation based corroboration of remotely sensed location data was explored.

Base maps' accuracies (from the mapping agencies) are believed to be improving considerably, which emphasises the need for accurate location of buried plant. This accuracy improvement is allowing users (Highways Authorities and Utilities) to work in new ways.

The probability of detection of plant using GPR was debated, with accuracies being proposed for false positive and for false negative indications. The question remains as to the cost/benefit versus accuracy figures that would be acceptable to end users trying to use location data in a practical streetworks setting.

As the debate was cut short by time constraints Jo Parker proposed that time be set aside at a future meeting to complete the discussion.

The next ORFEUS User Group meeting will be held in Pisa in the autumn of 2008, whilst allowing time for discussion of the points raised here, the main activity at that meeting will be the development of a field test strategy based on sites where end users already know what is buried, or where they intend to excavate extensively in the next six months, to give verification of the results. Sites are required suitable for testing the new bore-head radar design, a well as sites for the newly developed and experimental downward-looking radar systems.

Active participants would be expected to support the tests with some data comparison/interpretation, and supervised/supported access to the test sites. The ORFEUS team are looking for sites in a variety of soil conditions and representing a range of national characteristics and urban settings. Clearly, hosting such tests gives hosts the benefit of a direct evaluation of the very latest no-dig technology.

The cost of the tests themselves and the associated detailed data interpretation are part of the ORFEUS budget, and not a charge on the hosts.