



# ORFEUS

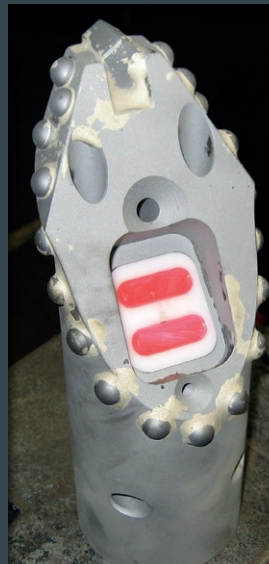
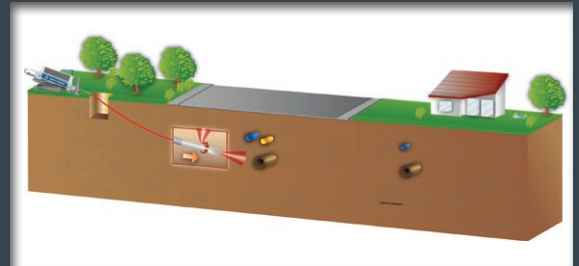


## Operational Radar For Every drill string Under the Street

Grant Agreement No: 308356



Drill tip  
radar  
in use



◀ HDD  
Drill tip  
fitted with  
ORFEUS  
radar  
sensors

▲  
Operational  
Drilling Rig  
equipped  
with radar  
sensor system

The safe, cost effective and quick radar-guided HDD will be developed through the “ORFEUS - Operational Radar For Every drill string Under the Street” two year project which is financed by the European Commission through the 7<sup>th</sup> Framework Programme (FP).

ORFEUS is a full scale demonstration project. It aims at progressing the previously developed Horizontal Directional Drilling (HDD) drill tip Radar that was proven under the preceding project entitled “Optimised Radar to Find Every Utility in the Street” to a commercial stage. That project was financed by the 6<sup>th</sup> FP and resulted in the development and field trials of an innovative Ground Probing Radar (GPR) that operates on the drilling head of HDD systems

and provides real-time obstacle detection that increases the safety margins of HDD operations and allows its use in the widest possible range of conditions.

ORFEUS is intended to ensure the technical, regulatory and commercial viability of the GPR which will be achieved through technical refinement, laboratory and field testing in collaboration with end users, and standardisation bodies together with validation of the technical specification and prototype system. ORFEUS active working partners include Europe’s major utilities, drill equipment makers, and advanced survey radar companies. The partners intend to progress the technology rapidly and demonstrate the live operational drill tip radar system.

[www.orfeus.org](http://www.orfeus.org)

# The ORFEUS Radar

- ▶ Ensures cost effectiveness, increases safety, reduces road congestion
- ▶ Takes the guesswork out of HDD
- ▶ Threads the underground needle
- ▶ Reduces the occurrence of dangerous strikes on buried services
- ▶ Reduces street works costs for utilities and cities

## Interested? Want to be involved?

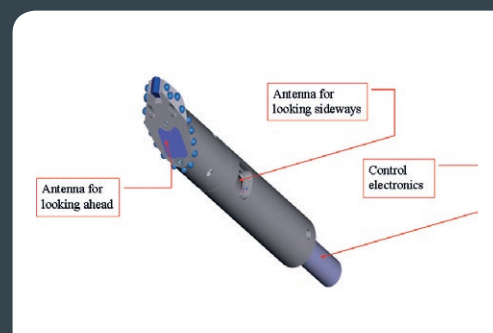
Through the next two years the project team will be speaking and attending conferences, and running workshops for interested end users.

We especially want to engage with utilities, and with experts and standards or safety agencies who influence or set operational and safety standards in drilling and street works.

Please contact Howard Scott the project coordinator [howard.scott@osys.co.uk](mailto:howard.scott@osys.co.uk)

## What is Horizontal Directional Drilling?

Horizontal Directional Drilling is a trenchless method of installing pipes and cables of various sizes, minimising disturbances to traffic and people living nearby. The technique is very powerful but requires an accurate knowledge of the position of obstructions and utilities such as power cables, telecommunication lines, steel and plastic gas pipes, potable water and sewer lines since striking one of those assets can be extremely dangerous and can cause significant economic losses due to the interruption of public services. Consequently, the safe use of the technique demands an accurate knowledge of utility assets and other obstructions in the drill path. The ORFEUS drill tip radar can detect obstacles in the drilling path allowing the avoidance of damage.



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