

Phased Array - Detecting Live Cables

Phase 3

Project summary

Industry Partner(s):

Cadent

Innovator:

The Technology Partnership (TTP)

Challenge:

The Challenge associated with the project was to develop a solution which minimises the risk of injury from hard-to-detect live cables, ideally consisting of electromagnetic sensors arranged in such a way that they can be applied to the detection of buried surfaces.

Approach:

A call for innovation was launched to find a solution which met the requirements, which TTP produced. The key requirements for deployment were identified at an initial meeting with Cadent and TTP and a prototype unit was assembled, tested and trialled from this.

Outputs:

The unit successfully detected a variety of cables, pipes and even concrete rebar in the substrates of the areas tested. The requirements for depth were exceeded and the unit connectivity fared extremely well.

Looking forward:

More development is needed in order to make Phased Array 'user friendly', but moving forward the aim is to make it available to all staff carrying out excavation



Impact:
Incremental



Key benefit:
Shared Learning

The risk of injury as a result of hard-to-detect live cables will be reduced.



Additional benefits:

**Cross-sector
Collaboration**

3000 strikes were reported in 2017/18, at combined cost of £100,000 per strike. The innovation seeks to reduce the number of strikes, bringing a clear financial benefit as well as an improvement in safety.



Societal

Accurate early detection resulting in less excavations and therefore fewer disruptions for customers.