

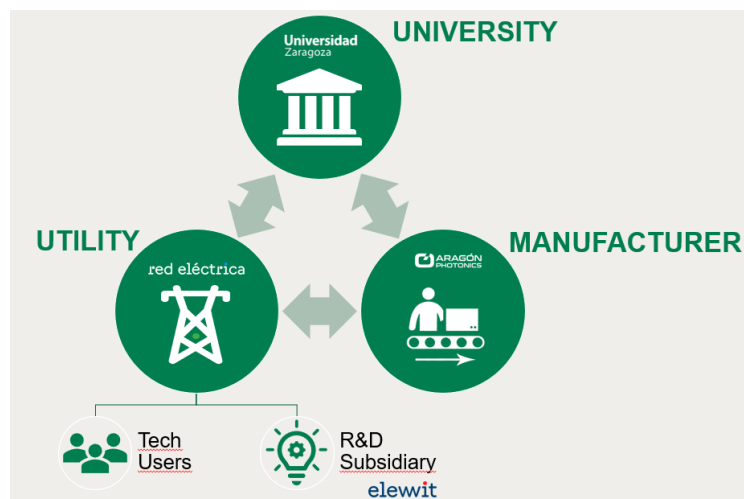
The authors of paper 11053 have decided to answer to question 1.6, which has the following statement:

*Which of the following ways of implementing intelligent IT solutions is more effective for the power industry: creating internal R&D departments at energy utilities, working with outsourcing IT-companies and research institutions, working with international IT “giants” providing solutions for the power industry? What is the industry experience?*

The project described in this paper is an example of how a new solution, based on *Distributed Automatic Sensing* (DAS) technologies has been deployed in an Electric Power Utility. The most effective way to carry out this project was creating a multidisciplinary TANDEM.

The project TANDEM is formed by three different parties:

- The Utility (Red Eléctrica, Spain).
- The University (Universidad de Zaragoza, Spain).
- The Manufacturer (Aragón Photonics, Spain).



The Utility has led the project. This party is indeed the final user of the technology and has the know-how of the applications of the technology in their particular field of expertise.

The Utility has identified different applications where this technology can be used. In fact, every asset which already has a fibre optic cable or where this fibre optic cable can be easily installed is suitable to be monitored by DAS.

In the scope of the project, underground, submarine and even overhead applications have been explored, as well asset security applications.

Within Utility, the project team involved experts with different background. On the one hand, fibre optic experts and line maintenance experts have led with the technical adaptation to the Utility and the different use cases. On the other hand, R&D experts also formed part of the project team. In this case, the R&D experts form part of a subsidiary company of the Utility.

The University has the knowledge of the technology and the physics behind it. They are experts interpreting the signals of the DAS equipment. This technology generates a vast amount of raw data that requires analysis and applying numerical methods. Due to their knowledge in different fields, they can provide adaptative solutions to this context.

The Manufacturer provides an installable solution. For instance, they industrialize the equipment and adapt it to be installed in a substation. Furthermore, they develop the software and the user interface. They also coordinate with the Utility the installation of the different pieces of equipment for the different pilots.

This TANDEM has been proven useful as every member has contributed to the field where they excel. This type of organization requires constant feedback among the parties that optimizes the project's development.

