

NOTA DE PRENSA

‘Online’ PPE to prevent occupational road accidents

- *The Tekniker technology centre has been involved in the development of an IoT device for Personal Protective Equipment used by workers.*
- *The system records location data and sends alerts to approaching vehicles to improve safety.*
- *The owner of the solution, a start-up company called Engidi, received a prize from Fundación Línea Directa for this product which is still in a pre-commercial stage.*

[Eibar, September 14, 2023] –Accidents do not only affect vehicles but also pose risks for the safety of operators carrying out construction or maintenance work on a daily basis.

A collaboration has been established to improve the degree of protection for teams performing road works by the [Tekniker](#) technology centre and a start-up company called [Engidi](#) to produce ACRUX, a device incorporated to Personal Protective Equipment (PPE) that is in line with the global trend associated with the Internet of Things (IoT) focused on creating objects that can connect and exchange data with other devices and systems via the Internet and other communication networks.

The system is able to instantaneously deliver data showing the location and situation, for instance, of a worker that has either fallen down or is dangerously exposed and automatically sends warnings to nearby vehicles to guarantee the operator’s physical integrity.

As explained by Joseba Izaguirre, a Tekniker researcher, “operators can trigger an alarm when working in hazardous situations and the solution in turn can also send a warning whenever it detects any kind of danger when working at great heights or in extreme temperatures to allow the necessary precautions to be taken”.

Adapted to hazardous environments

Tekniker, an organisation that has an extensive amount of knowledge and experience in terms of designing electronic products, has developed the features that a device of this kind requires to adapt to outdoor and dangerous working environments and guarantee the safety of workers.

The end result is a robust solution that can process all the information that is compiled with regard to the location of workers, their situation and the conditions under which the device is operating.

Moreover, and thanks to its connectivity, ACRUX can send data to other types of equipment and search engines such as Google or navigation apps like Waze.

Izaguirre states that “it has been a challenge to create a device that is compatible with road conditions and is able to deliver information in a reliable and suitable manner”.

ACRUX is currently in the pre-commercial stage and is being optimised. The Engidi start-up company won the 11th edition of the Award to Entrepreneurs and Road Safety presented by Fundación Línea Directa for this product that prevents accidents whilst road maintenance work is being carried out.

The device, certified by CE, IP65 and ATEX, has been designed to reinforce the personal safety of people working in other types of hazardous environments such as industrial facilities or rescue operations.

More about Engidi

The Catalanian start-up Engidi provides services and solutions to generate and manage information in working environments and, more specifically, in the area related to the safety and connectivity of work teams.

It is along these lines that the company also specialises in designing and developing electronic devices such as ACRUX and implementing IoT technologies.

More about Tekniker

Tekniker is a technology centre specialised in Advanced Manufacturing, Materials and Surface Engineering and ICTs for production. Its mission is to further growth and wellbeing in society

at large via R&D&I and enhance the competitiveness of the industrial fabric in a sustainable manner. Tekniker is a member of the Basque Research and Technology Alliance (BRTA).

More information:

GUK ▶ Unai Macias

unai@guk.eus | Tel. 690 212 067