Eurecat and Mobile World Capital Barcelona create the startup Dipneo, which will develop and market an autonomous medical device to facilitate survival in the event of cardiorespiratory arrest

- **Out-of-hospital cardiorespiratory arrests are estimated to reach 700,000 per year in Europe and represent a serious health problem, given that the survival rate is only a 10 percent.**
- **This new device is based on a new system patented by Eurecat that allows air to be blown into the patient autonomously, a feature that makes it optimal for non-expert users as well as professionals.**
- **Dipneo's goal is to bring the first version of the medical device to market in 2025, with sales forecast to reach 2.5 million euros by 2026.**

The Eurecat technological centre and Mobile World Capital Barcelona have created the startup Dipneo, which will develop and market a new medical device for resuscitation in the event of cardiorespiratory arrest, based on a new system patented by Eurecat that allows air to be blown into the patient autonomously, a feature that makes it optimal for non-expert users, as well as professionals. The project came to MWCapital last year, from where they were accompanied throughout the business validation phase and the creation of the founding team.

This new device differs from the insufflators based on an air bag available on the market in the fact that it acts autonomously and without hands, so that once in place it generates safety for the non-expert user and represents a technical, economic and performance improvement in the resuscitation manoeuvre with respect to existing advanced ventilation systems, also for professionals.

In the words of Dipneo's CEO, Xavier Castells, "Dipneo's goal is to bring the first version of the medical device to market in 2025", with sales expected to reach 2.5 million euros by 2026.

The company's goal is "to be the perfect complement to defibrillators, known as DEA, with a market potential of 4.2 billion euros and expected growth of 8.8 percent per year," says Dipneo's CTO, biomedical engineer Julio Díaz.

Dipneo's short-term goal "is to develop a product to improve survival", explains the company's co-founder and head of industrial technology valorisation at Eurecat, Ferran Soldevila, who points out that the product is expected to start the regulatory path to obtain the CE marking in 2024.

Once this stage has been passed, "it is planned to launch it on the market, starting with the expert user and then adapting the device for use by professionals who would use it sporadically and other users", adds the CEO of Dipneo, who estimates that the new device will have an impact in out-of-hospital environments such as medical emergencies, intra-hospital environments such as primary care centres, emergency and traffic rescue services, but also in cardioprotected areas, such as homes for the elderly, companies, sports facilities and municipal spaces, among others.

The new medical device, based on Eurecat's proprietary patented technology, has been licensed to Dipneo.

Out-of-hospital cardiorespiratory arrests, a major problem

Out-of-hospital cardiorespiratory arrests are estimated to reach 700,000 per year in Europe and represent a serious health problem, given that the survival rate is 10 percent. In the words of Dipneo's CEO, "improving this ratio to 45 percent survival only requires being able to perform successful cardiopulmonary resuscitation as quickly as possible".

To achieve this goal, he stresses, "it is necessary to train and provide expert support to the person who has to perform the resuscitation, as well as the necessary tools to oxygenate the brain, including ventilation systems and defibrillators".

Based in Barcelona, Dipneo is formed by Xavier Castells, CEO, with senior experience as CFO and advisor in several companies and startups, as well as investor in startups in the health sector; and Julio Díaz, CTO, biomedical engineer with experience in resuscitation devices. It also has a committee of experts and the participation of Dr. Marc Bausili, specialist in anaesthesiology and resuscitation and entrepreneur in this field, and David Osorio, director of the medical emergencies area of the Red Cross in Catalonia.