

## **E4shield listed by JRC among innovative technologies for defence against airborne pathogens**

**Rome, May 2024.** E4shield, the technology conceived, developed and patented by ELT Group that uses electromagnetic waves to inactivate respiratory viruses in the air, has been included and positively evaluated in the JRC – HERA technology foresight study. The European Commission's Joint Research Centre (JRC) provides scientific support to the European Union in defining future guidelines/regulations with the aim of improving quality of life, for example by supporting the development and implementation of innovative technologies. The report 'Suppressing Indoor Pathogen Transmission: A Technology Foresight study' includes E4shield as one of the innovative technologies to be considered in the EU's future to ensure an increase in indoor air quality.

Also according to this study, the airborne route is considered one of the most common modes of transmission of respiratory viruses. This is particularly relevant in indoor environments, where most respiratory infections occur. Controlling the transmission of airborne pathogens has become a major public health challenge to prevent the spread of infectious diseases, ensuring the safety and health of individuals and communities. Two groups of technologies have been identified to meet this challenge:

- For the detection of pathogens in the air
- For decontamination of air and surfaces

Experts from various fields, from universities to research and technology organisations, but also private companies and business associations, participated in this study in order to gain a multi-stakeholder perspective on the possible future development of innovative solutions.

The e4shield technology is currently used in devices distributed by e4life worldwide. The goal of e4life, a newco born out of the joint venture between ELT Group and Lendlease, is to expand the application of e4shield technology to other respiratory viruses (both human and animal) and to achieve the ambitious goal of also being effective against other microorganisms (e.g. bacteria).

## **E4SHIELD TECHNOLOGY**

e4life devices are completely Made in Italy devices. They exploit SRET (Structure Resonant Energy Transfer) phenomenology capable of inactivating respiratory viruses in aerosols for which it is programmed thanks to the action of electromagnetic waves at a frequency that is effective on pathogens but harmless to humans. The technology was initially conceived as an Anti-SARS-CoV-2 solution, but the universal value of the physical principle of resonance on which it is based has allowed it to be extended to new respiratory viruses (e.g. seasonal flu) with similar efficacy, close to 90%, in the test campaigns carried out. The technology is CE and SAR certified.

The e4shield technology takes shape in the e4you devices, designed for individual protection, and e4ambient, designed for the protection of environments up to 50 square metres. The two devices are the first and only ones in the world capable of sanitising environments through the use of electromagnetic waves, harmless to humans. Marketing is handled by e4life.

<https://www.e4.life/it/>

### **ELT Group**

For more than 70 years, it has been a world leader in Electronic Defense systems. Thanks to innovative management of the electromagnetic spectrum, achieved through proprietary and integrated technologies, today the brand is an International Group with a multi-domain approach that also covers Cyber, Space and Biodefense.

ELT Group is present in major European Defense programs with cutting-edge technologies for intelligence support and for crew and platform protection.

It's headquartered in Italy, but has a presence in 11 countries located on 3 continents through sales offices and strategically important companies in Germany and Gulf.

ELT Group has permanent innovation as one of its pillars, investing about 50 Ml euro every year.

It has built its centrality on the well-being of its people in fact in the last 7 years it has achieved the 'Great Place to Work' certification, also entering among the Best Workplaces, the ranking of the best companies in which to work in Italy and also in Europe. It is also in the 'Most Attractive Employers' ranking. Also part of the ELT Group are CY4GATE, which specializes in Cyber security and Cyber Intelligence, E4Life, Italy's first Biodefense company and Solynx Corporation, a US-based technology scouting company.

### **E4life**

is an innovative Joint Venture formed by two international excellences: ELT GROUP, a leader in electronic defence systems, and LENDLEASE, an Australian company and global player in major urban regeneration projects. ELT Group has been a world leader in Electronic Defence Systems for over 70 years. Thanks to the innovative management of the electromagnetic spectrum, achieved through proprietary and integrated technologies, today ELT Group is an international Group present in 11 countries on 4 continents and has its headquarters in Italy. LENDLEASE is a leading company in the urban regeneration of entire districts worldwide.