

Commitment to the SDGs and the environment

NEUTRON INSIGHTS, S.L.

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At Neutron Insights, we develop radiation-based detection technology with a clear commitment to making a positive environmental impact. Our business activities are directly aligned with several of the United Nations' Sustainable Development Goals (SDGs), actively contributing to responsible innovation, efficient natural resource management, and environmental protection.

Our business model is based on the transfer of knowledge from the scientific field to the productive sector, through the direct commercialization of technological products, specialized services, customized R&D projects, and licensing or collaboration agreements. All of this is done with a responsible, transparent approach aligned with the ecological and digital transition.

We are committed to maintaining this purpose-driven innovation approach, contributing to the development of safe, clean, and high-value technologies that address the environmental challenges of our time. Furthermore, it is our mission to contribute **to skilled and quality employment**, and **to the improvement of the business fabric** in our environment (SDG 8), all while respecting the principles of **equal opportunities** outlined in our Equality Policy (SDG 5).

Our technologies provide solutions to industrial, agricultural, and environmental challenges with non-invasive, low-consumption, and highly adaptable approaches.

Our main development line, the inspection systems, elemental analysis, and Non-Destructive Testing (NDT) using neutron technology, allow the internal study of structures and materials without damaging them or generating waste. This adds value in terms of **resource efficiency, waste reduction, and the extension of the useful life of industrial assets**, which aligns with SDGs 9 and 12.

DUVI, our early ignition detection system based on ultraviolet radiation, has been conceived as a key tool **for preventing forest and industrial fires** (SDG 13 and SDG 15). Our project for scaling and evolving the system, and its integration into unmanned autonomous vehicles for aerial and ground surveillance in risk zones, **critical infrastructures, and renewable energy** facilities is of great importance to achieving SDG 7.

The system developed by the CORNEA project, designed and fully manufactured by Neutron Insights, allows for the autonomous and continuous measurement of soil moisture through cosmic neutron detection. This product has **a high potential impact on sustainable and precision agriculture** (SDG 2 and SDG 6), optimizing water use, preventing over-irrigation, and improving real-time decision-making, directly contributing to more efficient and resilient water resource management.

In line with our ability to apply particle physics and detector engineering to new environmental challenges, we also participate in the Business Factory ClimaTech program, an initiative from the Xunta de Galicia for the incubation, acceleration, and consolidation of environmental sector projects in Galicia. We presented a proposal aimed at **the removal of heavy metals in wastewater through ionizing radiation emission and detection techniques**. Although our initiative was not initially selected, it showcases our proactive approach and potential in developing solutions for environmental decontamination and monitoring.

Neutron Insights complements its developments with advanced simulation tools and digital twins, enabling the optimization of each solution before physical deployment, minimizing costs and material consumption in the early stages of design.