



Saclay, 20 December, 2011

CEA-LIST and Saphymo sign licence agreement regarding innovative radiological detection technology

The CEA LIST Institute and SAPHYMO announced the industrialization of a new generation of radiological detection portals (neutron and gamma detection). This agreement marks a new stage in CEA LIST and SAPHYMO's long history of collaboration.

Security portals

Natural and artificial radionuclides are used in many sectors for activities that produce potentially radioactive waste. This concerns a diverse range of sites: hospitals, research centres, waste treatment, sorting and transfer centres and steelworks, etc. They therefore have detection portals for checking whether or not outgoing materials are harmless. Such portals are also used in the area of security, especially for border controls.

Saphymo, the leading firm in Europe, with over 1,000 installed portals, wants to develop a new generation of neutron-gamma detection portals designed to satisfy performance constraints and market costs.

Innovative technology

As part of the MA-NRBC project¹, developed in the context of the Systematic Paris-Region competitiveness cluster and led by Saphymo, the CEA LIST Institute has proposed an innovative detection technology based on an original numerical analysis system.

Key to the innovation, CEA LIST developed new signal-processing algorithms, whose improved performance makes it possible to discriminate neutrons and gamma rays using an inexpensive single plastic scintillator². Furthermore, digitizing the signal at high-frequency (1GHz) makes recording the physical information contained in the signal and its use by the algorithms especially reliable.

A partnership to improve competitiveness

Convinced that this technology has a competitive edge, Saphymo decided to industrialize the whole system by integrating it into its DSP line of commercial products, with support from CEA LIST. *"This is a structuring project to improve our product ranges and rapidly be able to offer our customers an alternative to the traditional Helium tubes, a financially competitive solution that affords high technical performance,"* emphasized Laurent Schneider-Maunoury, CEO of Saphymo. The two partners signed a licence agreement regarding two technologies developed at CEA LIST: the discrimination algorithm and the algorithm for stabilizing detector temperature.

Thanks to this agreement, CEA LIST and Saphymo have strengthened their already dynamic partnership and are planning future developments in the field of radiological detection.

¹ The *Moniteur d'Alerte NRBC* (MA-NRBC) project developed by the Systematic Paris-Region competitiveness cluster (completed at the beginning of 2010), and funded by the FUI (*Fonds Unique Interministériel*, the single interministry fund), involved Bertin Technologies, Proengin, Saphymo and CEA-LIST.

² Until now, it was only possible to distinguish certain, potentially toxic, fluorescent organic liquids.

About CEA

CEA, the French Atomic Energy and Alternative Energies Commission, is a French public research organization with activities in four main areas: low-carbon energy, information technologies and healthcare technologies, large-scale research facilities (TGIR) and defence and global security. Drawing on excellence in fundamental research and widely-recognized expertise capabilities, the CEA is involved in setting up collaborative projects with many academic and industrial partners. Backed by its 16,000 researchers and employees, it is a leading player in the European Research Area and its international presence is constantly growing.

Within the Technological Research Division of CEA, the CEA LIST Institute conducts research on smart digital systems. By developing cutting-edge technological research, CEA LIST helps its partners to enhance their industrial competitiveness thanks to innovation and technology transfer (www-list.cea.fr).

For more information, see www.cea.fr

About Saphymo

For 60 years now, Saphymo, an independent French industrial firm, has been a key player in ionizing radiation monitoring systems. Saphymo works in many areas of radioactivity detection and measurement, including operational dose measurement (Saphymo supplies operational dose measurement devices to EDF), fixed systems for monitoring processes, contamination monitoring, environmental monitoring and radiological monitoring of vehicles, containers and pedestrians. Detection portals installed in France and worldwide have made Saphymo the European leader in this sector, with over a thousand systems installed.

Saphymo's products and solutions, designed for use in hazardous industrial environments, are used in the nuclear industry – at nuclear power plants, throughout the fuel cycle, etc. - as well as by a vast array of users in the Defence, Security, Industry, Research and Healthcare sectors.

Press contacts:

Contact at CEA: Coline Verneau – Tel.: +33 (0)1 64 50 14 88 - Email: coline.verneau@cea.fr

Contact at Saphymo: Virginie Druésne – Tel.: +33 (0)1 69 53 73 42 – Email: vdruésne@saphymo.com