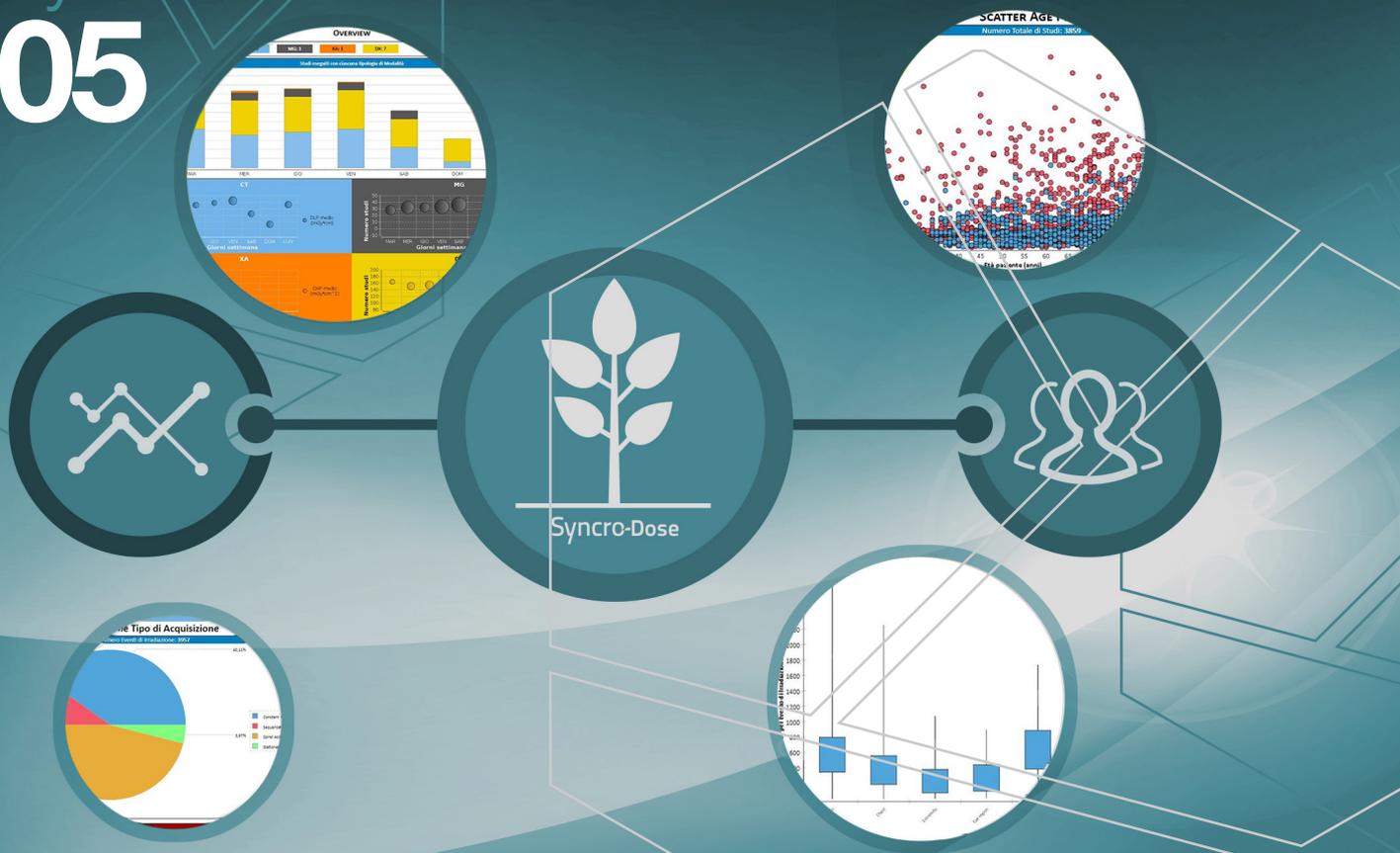


# Syncro-Dose USER'S VOICE

05



Healthcare IT

# Syncro-Dose

## The view of Prof. Caramella

**Prof. Davide Caramella**

Professor of Diagnostic Radiology at the Department of Translational Research and New Technologies in Medicine and Surgery, University of Pisa



Directive 2013/59/EURATOM dated 5 December 2013 establishes the basic safety standards for protection against the dangers of exposure to ionizing radiation. The Directive stipulates that the medical report must include information on the amount of radiation to which patient has been subjected during the radiological or nuclear medicine examination. To comply with this European standard it is necessary to develop procedures and have appropriate software, as well as to carry out checks on the accuracy of the dosimetric data obtained, including how it is archived and communicated. The data must have a well-defined scientific and technical value, but it is also necessary to communicate simple but meaningful information to non-professionals, namely the patients.

Syncro-Dose is a software tool which supports healthcare professionals involved in reducing the risks to patients undergoing medical exposure to ionizing radiation. It offers sophisticated processing of radiological data obtained from the set procedures and acquisition protocols, including clinical audits and creating a dosimetric history of the patient. At the end of May Syncro-Dose obtained the CE marking in class I for Medical Devices.

The system was developed in collaboration with Prof. Caramella, Professor of Diagnostic Radiology at the Department of Translational Research and New Technologies in Medicine and Surgery at the University of Pisa. Development started in 2016 when Prof. Caramella presented the outcome of a study on the optimization of the dose administered in radiological procedures at the SIRM 2016 congress.

(<https://synapse.fujifilm.eu/it/article/sirm-2-prof-caramella-univ-pisa-ottimizzare-dose-radiazioni-ionizzanti-al-paziente.html>).

Prof. Caramella illustrated how the collection of dosimetric indices obtained from the studies carried out on patients, and subsequently analysed, is of fundamental importance in the evaluation of the work of radiology departments as it allows them to take action where the dose is unjustified when assessed against the needs of the patient.

Syncro-Dose systematically analyzes the collected data, creating reports and comparison benchmarks to be used to optimize the daily work of the radiologist. According to Prof. Caramella it is necessary to focus on quality, improving and maintaining protocols, and avoiding unnecessary doses. The aim is to achieve sufficient quality to satisfy clinical diagnostic needs, whilst using the lowest possible amount of ionizing radiation.

Through Syncro-Dose it is possible to report all the information required by the Directive. By providing reliable data it can support the clinician by demonstrating that the examination was performed with a dose which was in line with the diagnostic levels of reference. The Syncro-Dose installation in Pisa collects data from over 15 hospitals, monitoring a large number of equipment, currently represented by 34 CTs, 13 mammography systems, 40 digital X-ray systems and 2 angiographs.

Click here <https://synapse.fujifilm.eu/it/synapse-dose.html> to find out more about Fujifilm Syncro-Dose.

