

Company name **CEA Saclay**
Service of Sensors and Instrumentation
Service of Data Intelligence

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Targeted topics

SU-INFRA01-2018-2019-2020: Combined physical and cyber threats

SU-INFRA02-2019: Security for smart and safe cities, including for public spaces

SU-BES02-2019-2020: Technologies to enhance border and external security

SU-DRS04-2019-2020: Chemical, biological, radiological and nuclear (CBRN) cluster

Competencies in Instrumentation

- *Development until prototyping of instrumentation in nuclear field: detection and measurement of ionising radiations based on optic fibres: remote measurements under extreme conditions of temperature, pressure, irradiation, vibration*
- *Participation and coordination of several European projects*
C-Bord: Effective Container Inspection at BORDER Control Points
Safewater: Innovative tools for the detection and mitigation of CBRN-related contamination events in drinking water
- *Fast electronic systems & innovative sensors for **non destructive analysis***
***Photonic activation** to characterize nuclear waste packages*
*High-performance **gamma-cameras***
- *Applications in border control of illicit materials, energy, defence, civil nuclear energy, aeronautics, smart manufacturing, smart materials*

Competencies in Data Intelligence

- *Development of mathematical models and associated software platforms for signal processing, data visualization and clustering, machine learning, integration of expertise, statistical model building*
- *Secur-ED: Secured Urban Transportation – A European Demonstrator*
TERRIFIC: Towards Enhanced Integration of Design and Production in the Factory of the Future through Isogeometric Technologies
Respondrone: integrated solution for first responders to easily operate a fleet of drones with multiple synchronized missions
- **Big data:** *methods able to tackle large amounts of heterogeneous data, design of reliable and efficient interactive complex data mining tools*
Streaming data analysis: *study of time series for monitoring and prediction purposes, time patterns extraction and dictionary learning*
Rule based systems: *knowledge modeling and integration with a fuzzy logic expert system*