

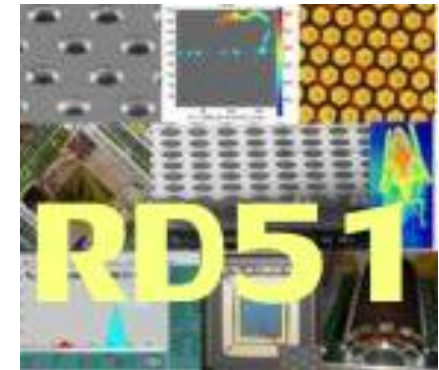


Giacomo Manessi

CERN, The Globe, 17th March 2015

Academia-Industry Matching Event

2nd Special Workshop on Neutron Detection with MPGDs

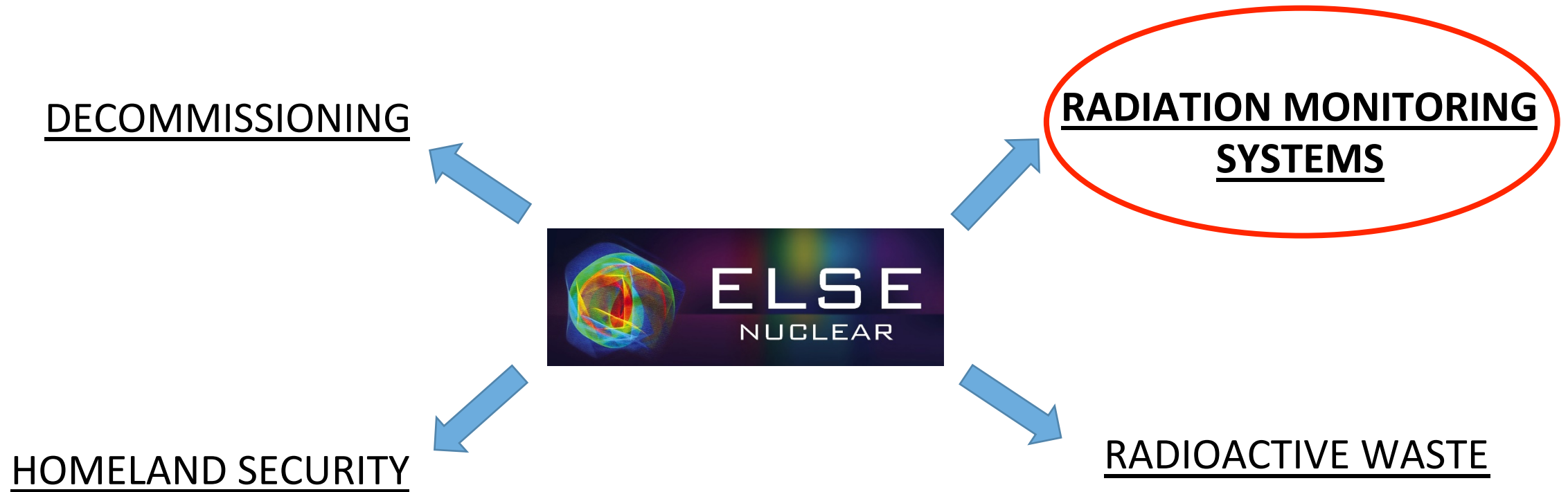


ELSE NUCLEAR srl, Via Pier della Francesca 26, 20090 Trezzano sul Naviglio (MI), Italy

ABOUT US





FOUNDED IN 1990: **ELSE**
SPIN-OFF IN 2013: **ELSE NUCLEAR**



ABOUT US



- SMALL COMPANY, 1/3 OF THE STAFF IN R&D
- INTERNAL PRODUCTION, MAINTENANCE, SERVICE AND TRAINING
- FLEXIBILITY, MODULARITY & **COMPLETE CUSTOMISATION** OF THE PRODUCT
- JOINT DEVELOPMENT WITH **ORTEC**[®] (VALUE ADDED RESELLER)



AURAS-3000
Free Release Waste Assay Counter

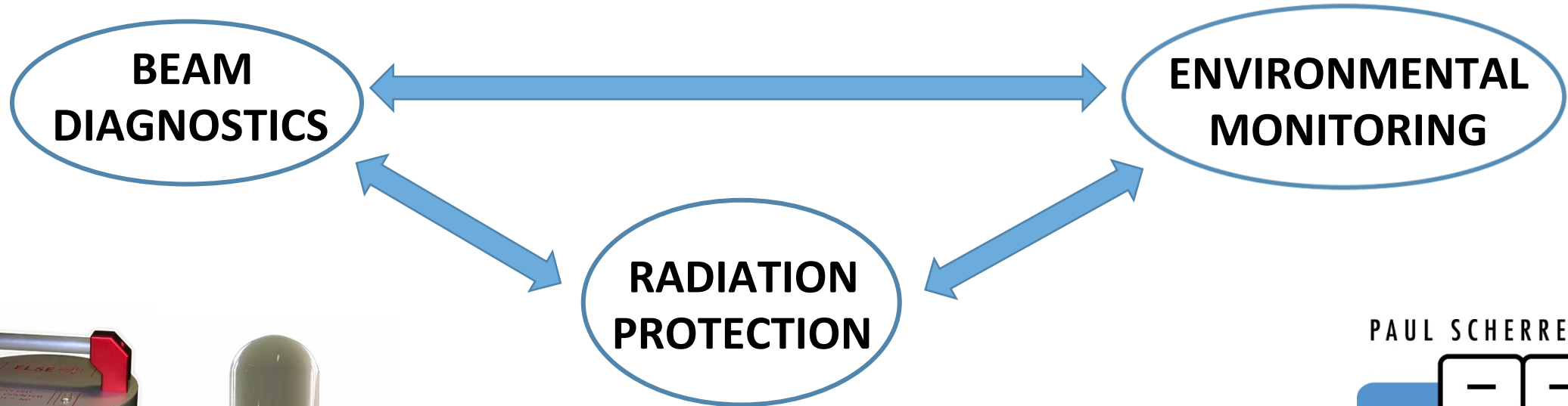
AURAS-3000'
Free Release Waste Assay Counter for Large Boxes, Drums and Other
Containers of Decommissioning Waste



R&D COLLABORATIONS



EXPLORING NEW FRONTIERS OF PRODUCT INTEGRATION



SPECIALLY CONCEIVED PHOTON + NEUTRON + CONTAMINATION MONITORS
INTEGRATED WITH IN ETHERNET/WIFI NETWORK (up to 1 km)
=> Single communication protocol, **Low complexity** & Low cost

RADIATION SAFETY AT PARTICLE ACCELERATORS



➤ PHOTON DETECTION



MERCURY
DOUBLE GM COUNTER
EXTRA-WIDE RANGE
ZIGBEE WIRELESS (UP TO 1 KM)



NAUSICAA
DESIGNED FOR PULSED FIELDS
35 keV – 10 MeV RANGE

➤ NEUTRON DETECTION



BONNER SPHERES
DESIGNED FOR PULSED FIELDS



LUPIN
NO DEAD TIME
INNOVATIVE WORKING PRINCIPLE
IDEAL FOR PULSED FIELDS

CURRENT PROJECTS FOR FUTURE DETECTORS



- Active & online neutron spectrometer - **Single sphere detector**
- Neutron detector for pulsed fields & BLM with linearity up to 1 mSv per burst
- **Doped fibres** for neutron detection
- Gamma probe and spectrometer for working **in magnetic fields** up to 1 T
(active magnets in accelerator environment)
- **³He alternatives** (e.g. Si detectors with LiF deposition)

R&D COLLABORATIONS



TECHNOLOGY TRANSFER ACADEMIA -> INDUSTRY



PAUL SCHERRER INSTITUT



JRC

EUROPEAN COMMISSION



**POLITECNICO
DI MILANO**

WHERE?

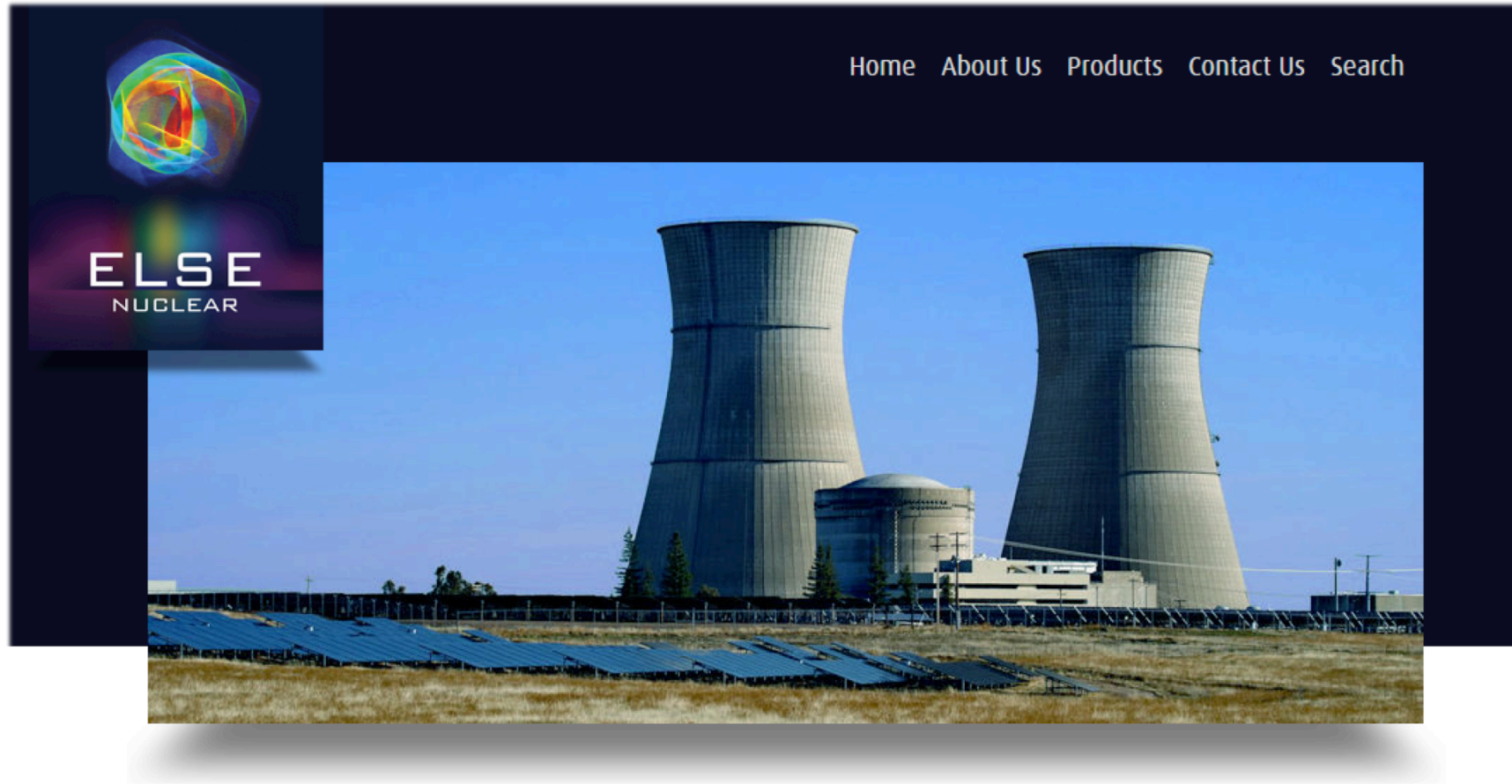


Trezzano sul Naviglio (Milan industrial area), 15 km from the     site

MILANO



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