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Co-funded by
the European Union

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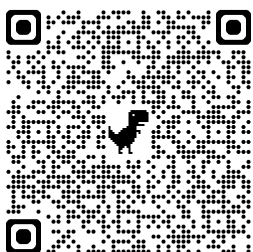
METROLOGY
PARTNERSHIP



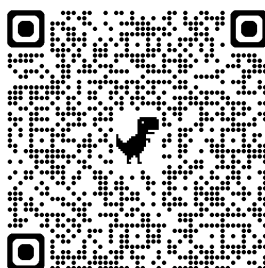
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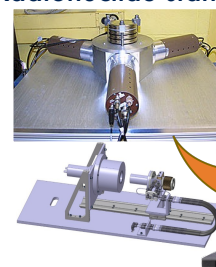


ETRAIN aims to establish traceability routes for nuclear medicine services across several European countries.

Creating traceability
infrastructure for Nuclear
Medicine

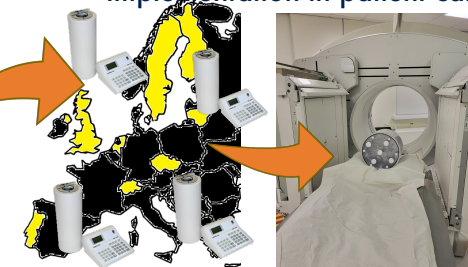
Harmonising Nuclear
Medicine measurements
across Europe

Radionuclide standards



Metrology institutes

Implementation in patient care



Hospitals and clinics in Europe

- ❖ 40 million nuclear medicine procedures are performed each year
- ❖ Demand for radioisotopes is increasing by ~5% annually
- ❖ Uncertainties in administered activities and imaging are largely unknown
- ❖ Lack of traceability in NM might lead to inaccurate activities being administered
- ❖ This contravenes EC Directive 2013/59/EURATOM

ETRAIN Consortium

9 National metrology institutes / designated institutes:

NPL (Coordinator, UK), VSL (WP1 lead, Netherlands), STUK (WP2 lead, Finland), CMI (WP3 lead, Czechia), FTMC (Lithuania), IST (Portugal), SSM (Sweden), CHUV, METAS (Switzerland).



5 clinical beneficiaries: Lund (WP4 lead, Sweden), HUS (Finland), VUHSK (Lithuania), KS (Sweden), RSFT (UK).



LUND
UNIVERSITET



Vilnius University Hospital
SANTAROS KLINIKOS



Royal Surrey

NHS Foundation Trust



Working plans - in five work packages (WPs)

WP1: Establishment of traceability routes

Current state of the art: Not all NMI/DIs in Europe maintain primary standards of radioactivity. Access to radioactivity standards in hospitals varies across Europe.

Beyond state of the art: Establish traceability routes in partner countries for important radionuclides. Create guidance.

WP 2: Assessing uncertainty

Current state of the art: No uncertainties = no traceability. Unknown accuracy in administrations and in activities derived from images and dosimetry.

Beyond state of the art: Enable traceability routes to be created by incorporating uncertainties. Engage with community.

WP 3: Validation of effectiveness

Current state of the art: Comparison exercises in NM not made routinely. Measurement capability in hospitals largely unknown.

Minimal guidance on how to perform comparison exercises
Beyond state of the art: Perform comparisons to assess effectiveness of new calibration routes. Create guidance. Deliver training and advice. Enable traceability.

WP 4: Creating impact:

Communication & dissemination: Newsletters, four workshops, engagement with societies, guidance documents, training material, publications.

Outcomes for industry and others: new calibration services, protocols for traceability, guidance, facilitate CMC claims.

Long Term Impact: Improved accuracy of therapeutic and diagnostic administrations. Accurate dosimetry.

WP 5: Management & coordination