

EURADOS WG2: 25 years of networking to foster Harmonisation in Individual Monitoring for external radiations

The European Radiation Dosimetry Group (EURADOS) is an association of about 80 European institutions collaborating for scientific understanding of the dosimetry of ionising radiation. Created 25 years ago, the specific working group, WG2, has been dedicated to fostering harmonization in individual monitoring. This network is composed of about 40 members from 18 countries that participate actively to the WG2 actions, with about 180 observers.

Over the years, WG2 has set activities to improve quality and reliability in individual monitoring, including the organization of inter-comparison exercises of personal dosimeters, ensuring continuing and future personnel skills through training, sharing best practice through publishing recommendations through developing research actions, networking, and through dissemination.

One WG2 action consists in organizing regularly self-sustained inter-comparison exercises of personal dosimeters [1] [2]. Started in 2008, this action has become essential for many Individual Monitoring Services (IMSs) as being an integral part of their accreditation process, stimulating IMSs to improve the quality of their results and assisting them with harmonisation of their quality control standards.

WG2 regularly organizes a training course, intended for all stakeholders in individual monitoring, to implement the European Commission Technical Recommendations for Monitoring Individuals Occupationally Exposed to External Radiation [3].

The WG2 network is also an opportunity to have open discussions within the community with intention of some common problematic could be shared and raised. Many work actions are derived, for example:

- Some broad recommendations were/are being elaborated: to assist and encourage IMSs to apply for accreditation according to the ISO/IEC 17025 standard [4], to solve data and IT problems that IMSs may face or to help defining what training IMS staff should have.
- A specific research action is addressing the issue of the variable quality of the CR-39 material to improve and harmonize neutron dosimetry performed with solid-state nuclear track detectors.

WG2 also benefits from collaboration between EURADOS and the International Organization of Standardisation (ISO). A practical example of a common action between these two networks is illustrated by a survey, currently in progress, aiming at giving an up-to-date overview of routine practices of IMSs.

Finally, a significant part of the WG2 actions is dedicated to dissemination through webinars, presentations at various scientific meetings or conferences, or via the publication of its activity in the open literature or through EURADOS Reports.

As a conclusion, the work of WG2 continues to make a significant contribution to improving quality and harmonisation in individual monitoring for external radiations in Europe and beyond.

[1] EURADOS Report 2021-05, A.F. McWhan, et al: EURADOS Intercomparison 2019 for Extremity and Eye Lens Dosimeters - Summary of Procedures, Results and Conclusions (2021)

[2] EURADOS Report 2021-06, S. Mayer, et al: EURADOS Intercomparison IC2017n for Neutron Dosimeters (2021)

[3] European Commission Technical Recommendations for Monitoring Individuals Occupationally Exposed to External Radiation, Radiation Protection 160

[4] EURADOS Report 2020-02, B. Petrovic, et al: ISO/IEC 17025 Guidance for IMS: Suggestions on How to Interpret and Implement the Requirements Including Examples from Accredited Laboratories (2020)

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