

BIPM-IAEA Collaboration

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Dosimetry and Medical Radiation Physics Section

The IAEA



“The Agency shall seek to accelerate and enlarge the **contribution of atomic energy to peace, health and prosperity** throughout the world”

Article II of the Statutes of IAEA

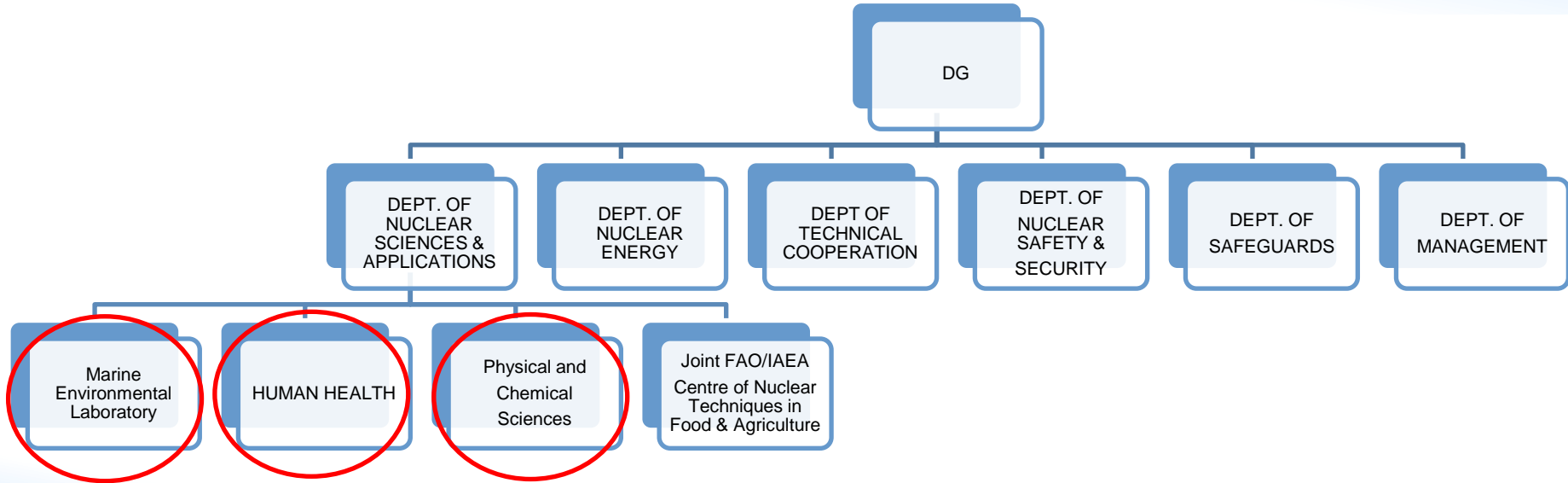
Nuclear Science & Applications the “3 pillars” of the IAEA



- The IAEA works with its 173 Member States and multiple partners worldwide to promote safe, secure and peaceful use of nuclear technologies



International Atomic Energy Agency



NA Labs: 12 Labs



-  *Insect Pest Control*
-  *Animal Production & Health*
-  *Food Safety and Control*
-  *Soil and Water Management & Crop Nutrition*
-  *Plant Breeding and Genetics*



Isotope Hydrology



Nuclear Science & Instrumentation



Dosimetry



Terrestrial Environment



Radioecology



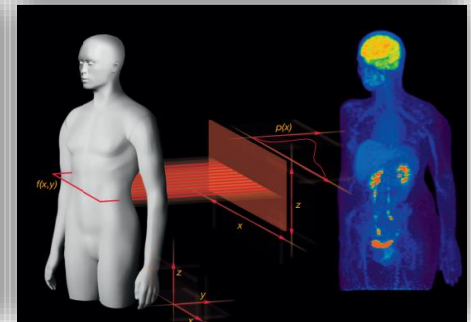
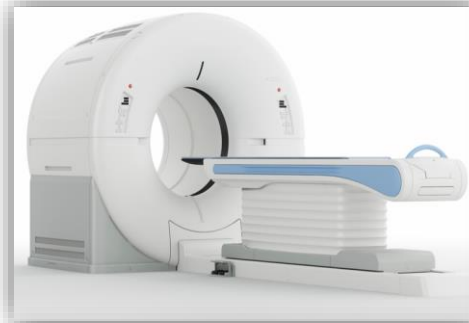
Radiometrics



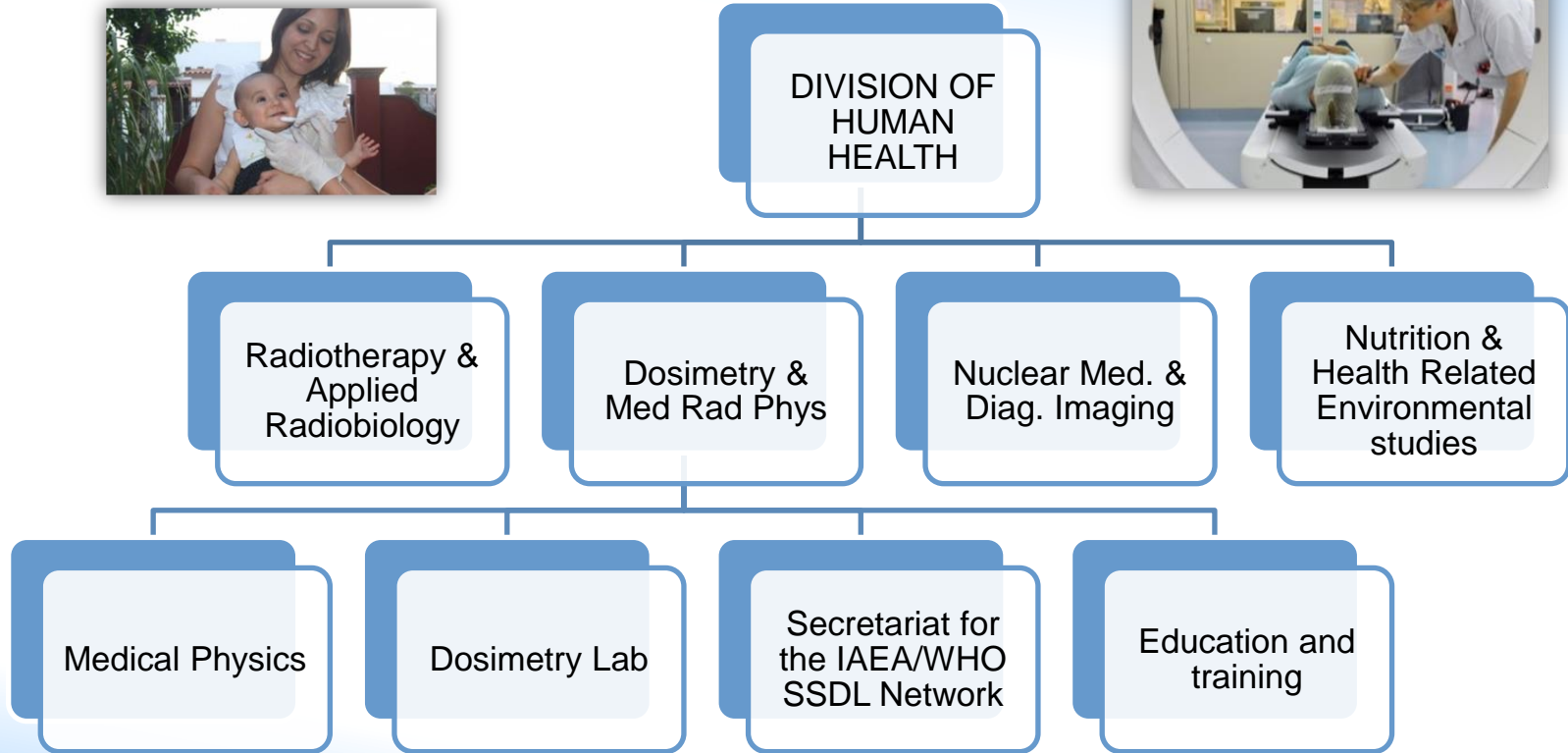
Marine Environment Studies

Division for Human Health

The role of the Division of Human Health is **to strengthen the capabilities of MS** to address the needs related to the **prevention, diagnosis and treatment of health problems** through the application of nuclear techniques.



Division OF Human Health



Medical physics

- Development and harmonization of guidance on physical & technical aspects of QA to support safe & effective use of radiation in medicine

Dosimetry Lab

- Calibration & audit services
- Dosimetry Laboratory and QA Networks



IAEA / WHO SSDL Network

**88 SSDLs in 75 MS; 16 PSDLs;
5 Collaborating organisations**

Network objectives:

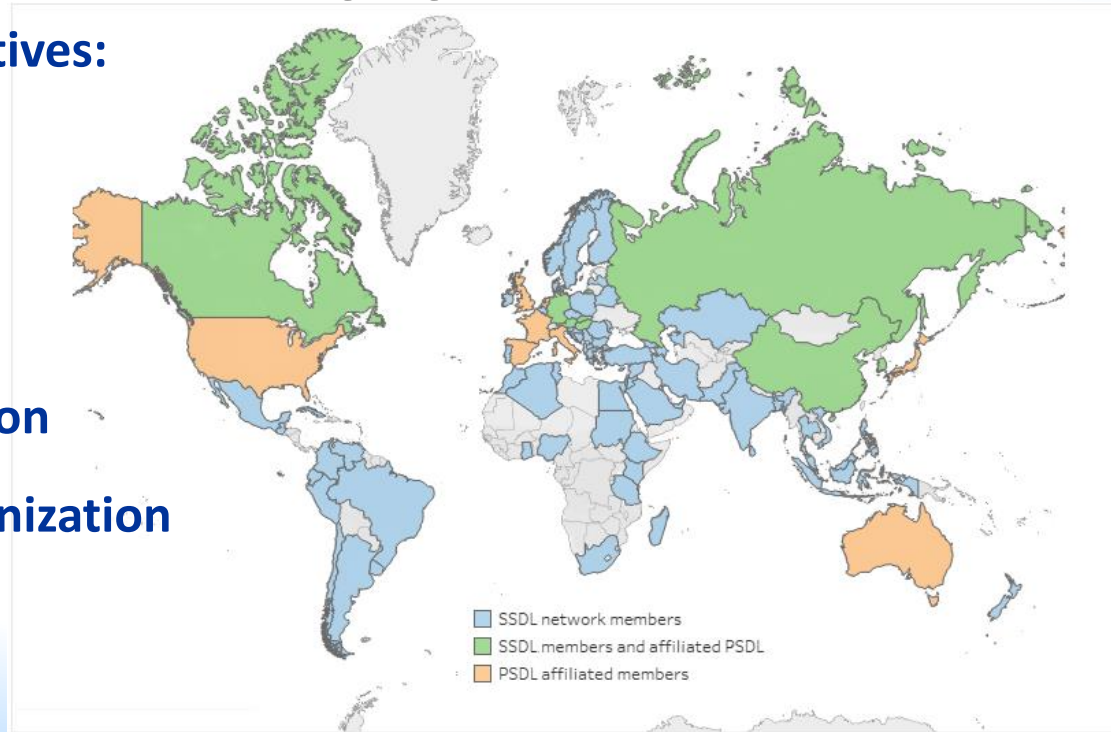
Accuracy

Traceability

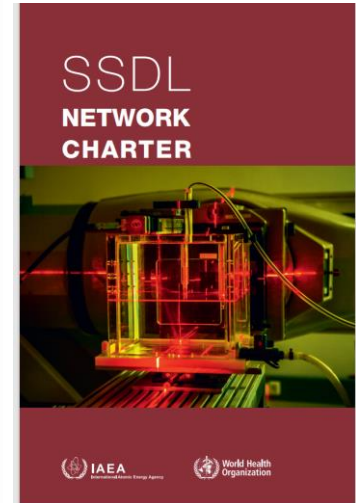
Consistency

Cooperation

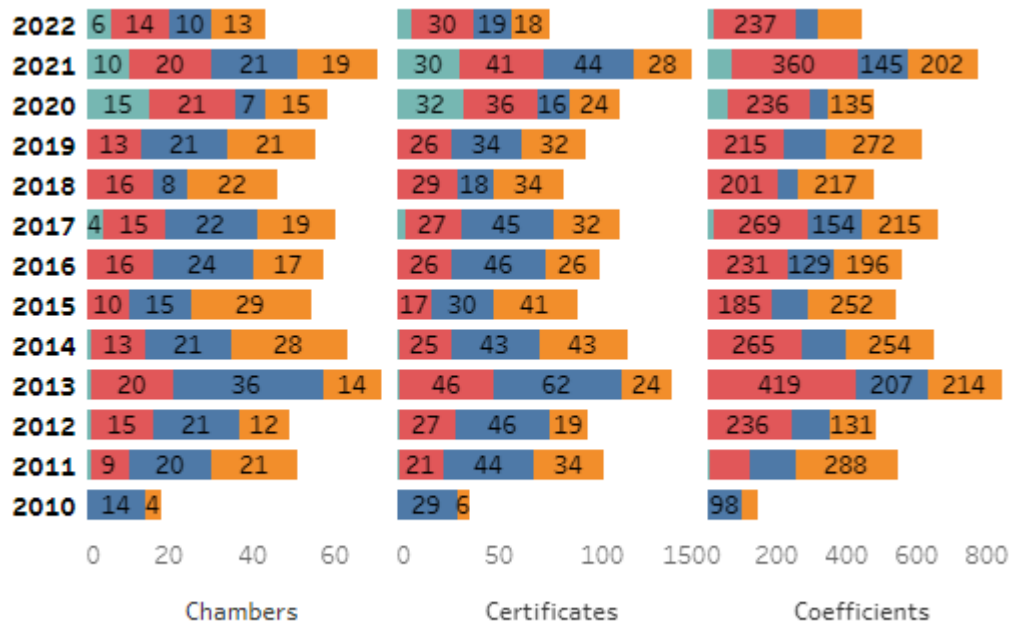
Harmonization



**IAEA Dosimetry
Laboratory:**
central laboratory
for the Network



Linking MS to the international measurement system

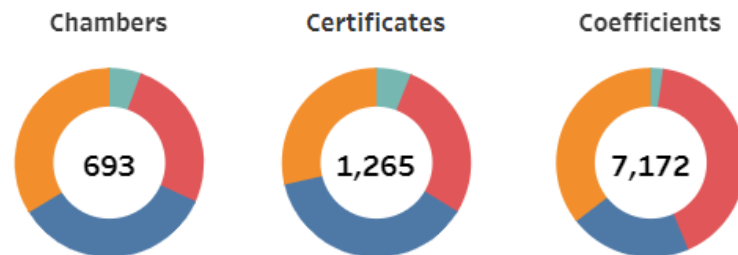


- IAEA mostly traceable to the BIPM
- Calibration for reference chambers only

77 113 693 693 1,265 7,172

Countries Institutions Requests Chambers Certificates Calibration coefficients

Calibration certificates issued by DOL



Dosimetry Level



BIPM-IAEA areas of collaboration



- IAEA signed the MRA in 1999
- In 2003, IAEA was involved in the audit of the BIPM IR lab
- BIPM-IAEA MoU signed in June 2012
 - Use of the irradiator at the IAEA premises by the BIPM IR
- Participation in all WG of the CCRI, and in the CCQM
- Member of the Scientific Committee of the IAEA/WHO SSDL Network that reviews and gives input to the strategy of the DMRP (currently Dr David T. Burns from IR dept)

Training/Conferences



- International Symposium on Standards & Codes of Practice in Medical Radiation Dosimetry (2002, 2010 and 2019)
 - This is the only event that brings together scientists from the laboratories (PSDLs & SSDLs) and clinical medical physicists
 - Focus is on standards, applications and quality assurance in medical radiation dosimetry
 - BIPM experts from IR have been actively participating
- The BIPM IR staff have been involved in various training activities organised at the IAEA for SSDLs
 - CIPM MRA and QMS
 - Primary standards

Publications

- Dosimetry Codes of Practices
- Guidelines for Radiation Measurements
- Guidelines for Quality Assurance & Quality Control

BIPM IR staff has contributed in various publications as reviewers and/or drafting

Many publications freely available from our website
<https://www.iaea.org/publications>



BIPM-IAEA possible areas of collaboration



- There is scope for increased collaboration that may be considered for the benefit of MS
 - FAO/IAEA Centre of Nuclear Techniques in Food and Agriculture
 - Food safety and control
 - Division of Physical and Chemical sciences
 - Nuclear data



IAEA

International Atomic Energy Agency
Atoms for Peace and Development

Thank you!

