

Regulatory framework relevant to managing DSRS (Portugal)

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IAEA International Workshop on
Sustainable Management of Disused Sealed Radioactive
Sources
Lisbon, 11-15 October, 2010



Summary

- Overall view of the legal framework in Portugal
- Some inventory data



Legal framework

Directive 96/29/EURATOM



Decree-Law 165/2002
Decree-Law 167/2002
Decree-Law 174/2002
Decree-Law 139/2005
Decree-Law 140/2005
Decree-Law 222/2008
Decree-Law 227/2008

Directive 97/43/EURATOM



Decree-Law 180/2002

Directive 2003/122/EURATOM



Decree-Law 38/2007



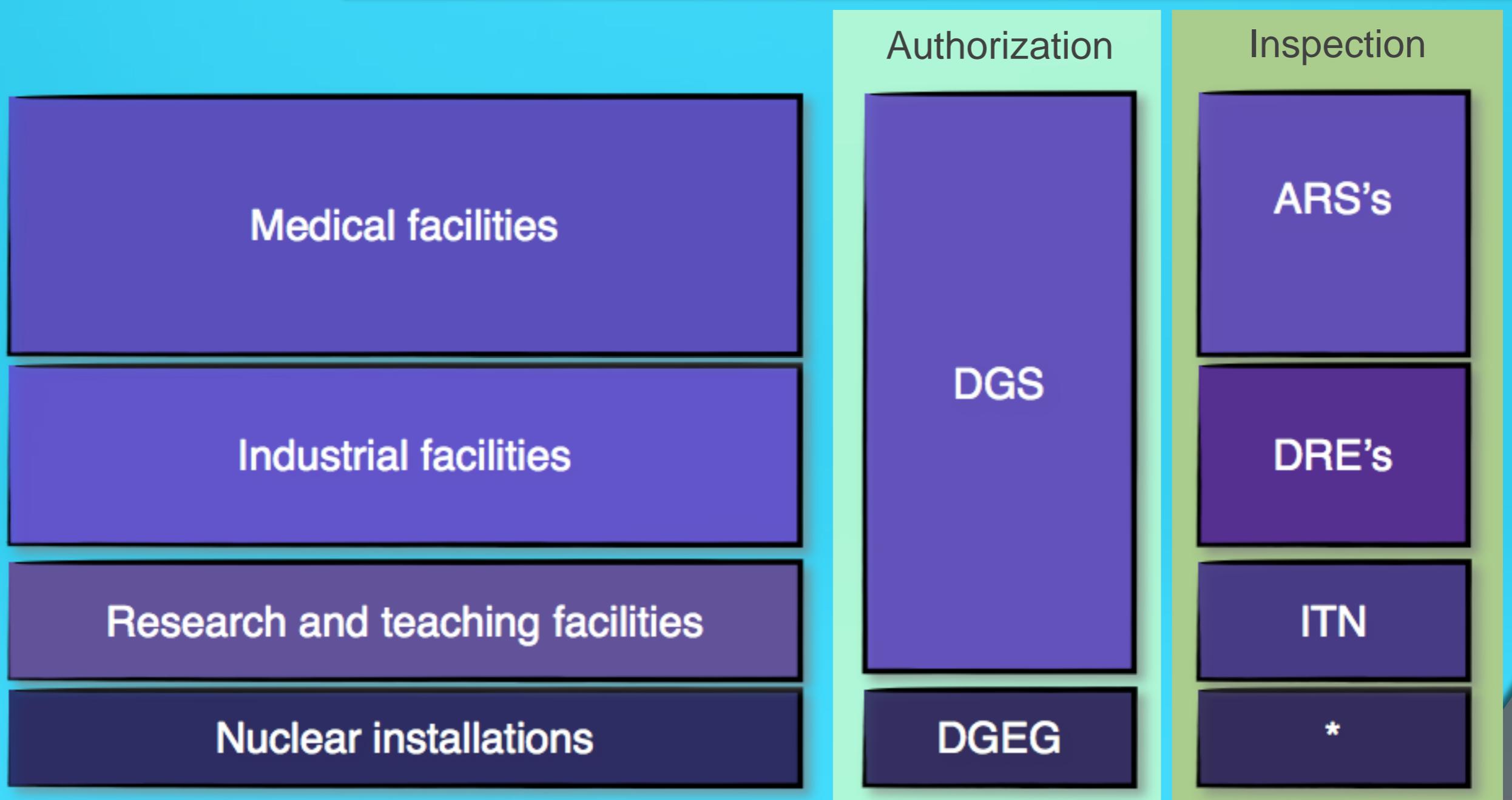
LEGAL FRAMEWORK

Decree-Law 165/2002

- Establishes the regulatory system;
- Assigns regulatory duties to several different government bodies;
- No fees for authorization/license for practices until 2009.
(DL 215/2008)



regulatory system summary



Independent Commission for Radiation Protection and Nuclear Safety

Independent supervision

*Included in research facilities



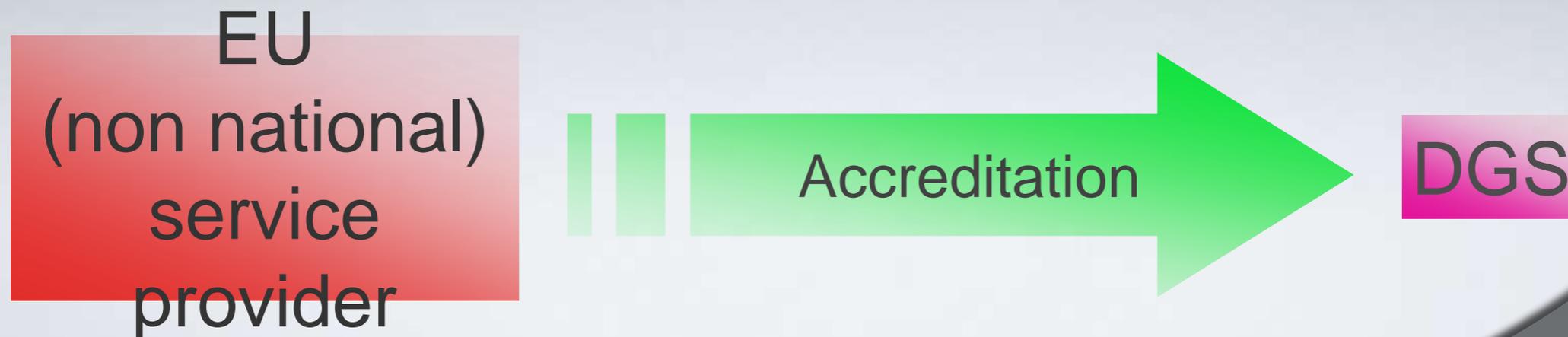
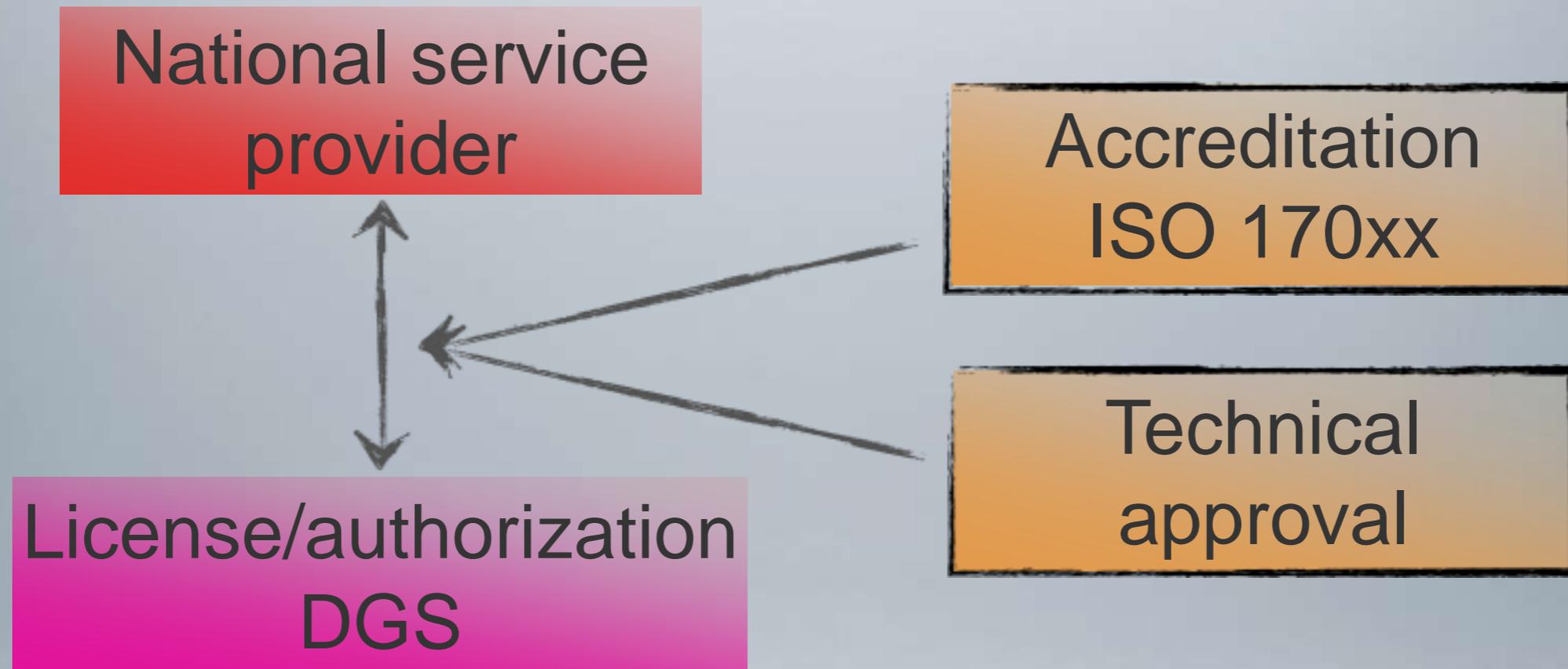
LEGAL FRAMEWORK

Decree-Law 167/2002

- Establishes the legal framework for service providers in radiation protection;
- Several flaws have prevented its application in practice.



Legal framework for service providers



What happens if the country's regulations don't require accreditation?



LEGAL FRAMEWORK

Decree-Law 174/2002

- Establishes the legal framework for response to a radiological emergency;
- Actions coordinated by Civil Protection;
- Technical responsibility is up to different institutions, based on type of emergency.



Framework for Emergency response

Coordination

Civil Protection

Advisory

In facilities

**During transport or
orphan source**

Outside of facilities

DGS

ITN

APA



LEGAL FRAMEWORK

Decree-Law 139/2005

- Creates the Independent Commission for Radiation Protection and Nuclear Safety (CIPRSN);
- Has the status of an independent commission and is made up of 5 members, directly appointed by the Prime Minister, under advisement of the Ministries of Science, Health and Environment.



LEGAL FRAMEWORK

CIPRSN

- Summary of competences:
 - Prepare and propose legislation and regulations on radiation protection and nuclear safety;
 - Verify and evaluate the conditions for application of licensing, inspection and control of radiation sources;
 - Make recommendations to the competent authorities in the regulatory system on matters of inspection and monitoring;
 - (...)



LEGAL FRAMEWORK

Decree-Law 140/2005

- Establishes the exemption criteria for practices;
- Exemption levels accordance with Directive 96/29/EURATOM;
- However, no clearance levels are set.



LEGAL FRAMEWORK

Decree-Law 222/2008

- Updates the national dose limits in accordance with Directive 96/29/EURATOM;
- Establishes protection measures for exposed workers, members of the public and trainees;
- Includes some arrangements regarding aircrews.



LEGAL FRAMEWORK

Decree-Law 227/2008

- Establishes the requirements for training in radiation protection;
- 3 levels of training are set:
 - Qualified Expert;
 - Qualified Technician;
 - Qualified Operator.



LEGAL FRAMEWORK

Decree-Law 38/2007

- Transposes Directive 2003/122/EURATOM regarding the control of high-activity sealed radioactive sources and orphan sources;
- Additionally, it applies to all sealed sources above exemption level.



LEGAL FRAMEWORK

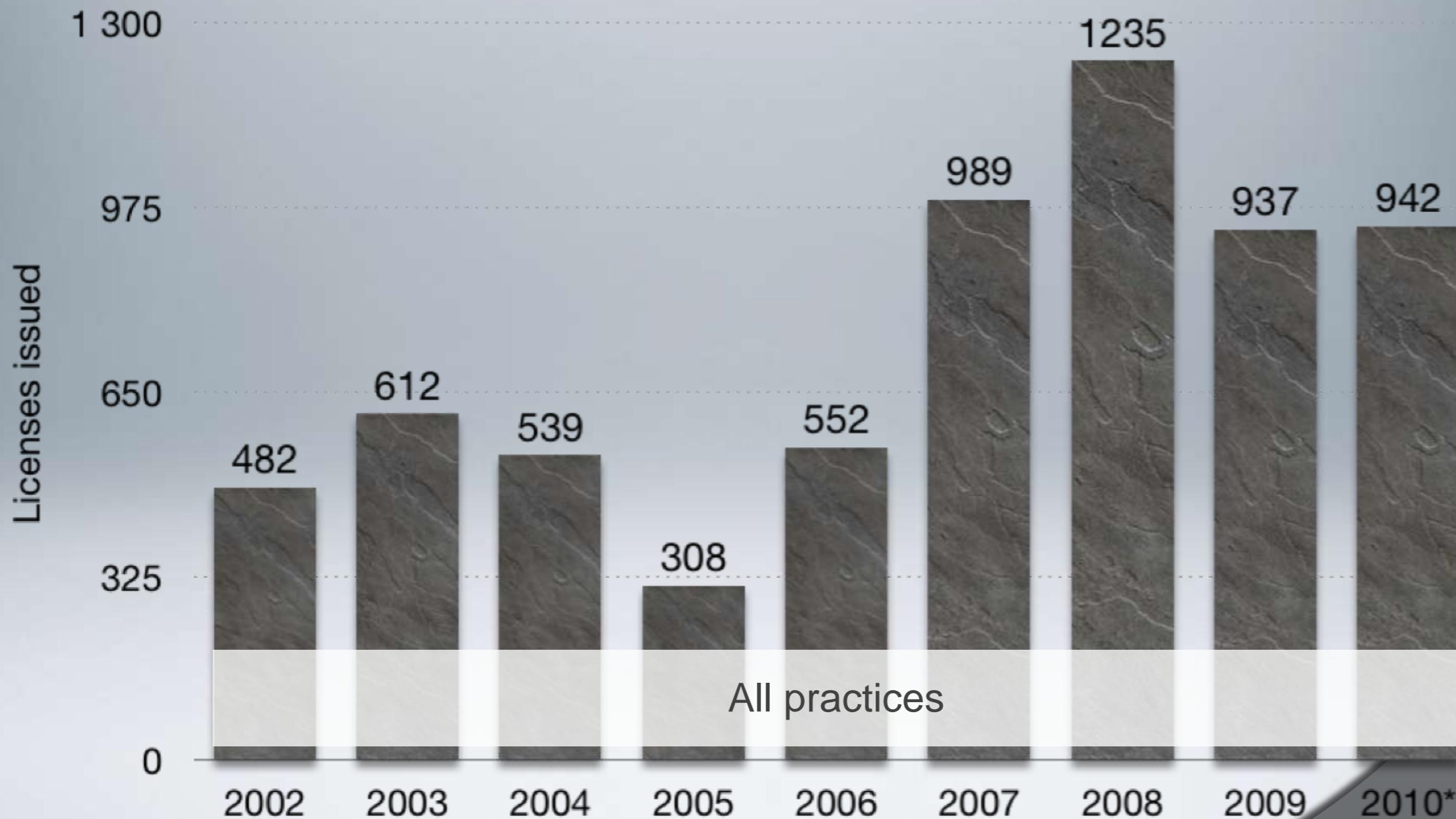
Requirements for sealed sources

- DGS authorizes their use;
- ITN keeps the registry of individual sources and authorizes:
 - Possession;
 - Transport;
 - Transfer.



Inventory

LICENSES ISSUED PER YEAR, INCLUDING RENEWALS



Source: DGS

*Until this date



- RAIS 3 used by DGS since 2007.
- Tracks all **authorizations of use** issued by DGS.
- One authorization of use per associated equipment.
- Does not include individual sources at this time.
- RAIS web currently under consideration - will allow tracking individual sources as well (DGS+ITN).



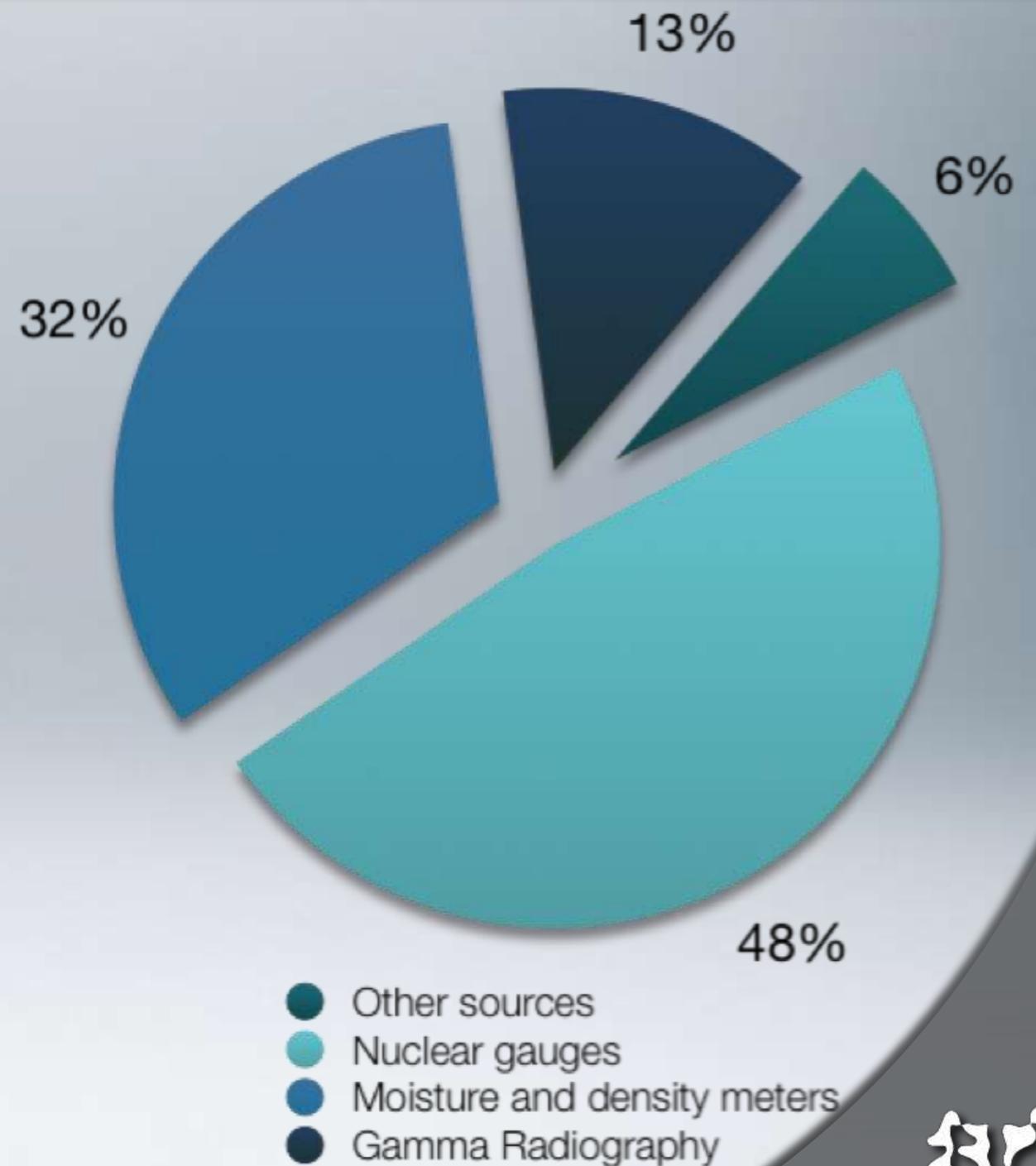
Number of Associated Equipment by Type

Associated Equipment Type	Number of Associated Equipment
[Unknown]	20
Brachy therapy machine	7
Calibration Device	7
Chromatography device	10
Density meter	73
Fixed industrial gamma projector	3
Fixed irradiation facility	10
Level gauge	247
Medical gamma cameras	4
Medical gamma cameras - PET	1
Moisture and density gauge	1
Moisture and density meter	273
Moisture meter device	3
Nuclear gauge	53
Portable industrial gamma projector	100
Selective gamma absorption device	2
Tele-therapy machine	3
Thickness gauge	21
Weight gauge	16
Well logging device	4
Xray tubes	1



Inventory

- Most radioactive sources in use are low activity nuclear gauges (48%).
- Portable moisture and density meters are common as well (32%)
- Some high-activity sources are used in gamma-radiography (13%).
- Other sources may be more specialised (6%).



Thank you!

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