Introducing REGSUN – IAEA Regulatory Forum for Safety of Uranium Production and NORM

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REGSUN Scope

- The Forum addresses primarily safety and regulatory aspects of uranium production and management of NORM activities.

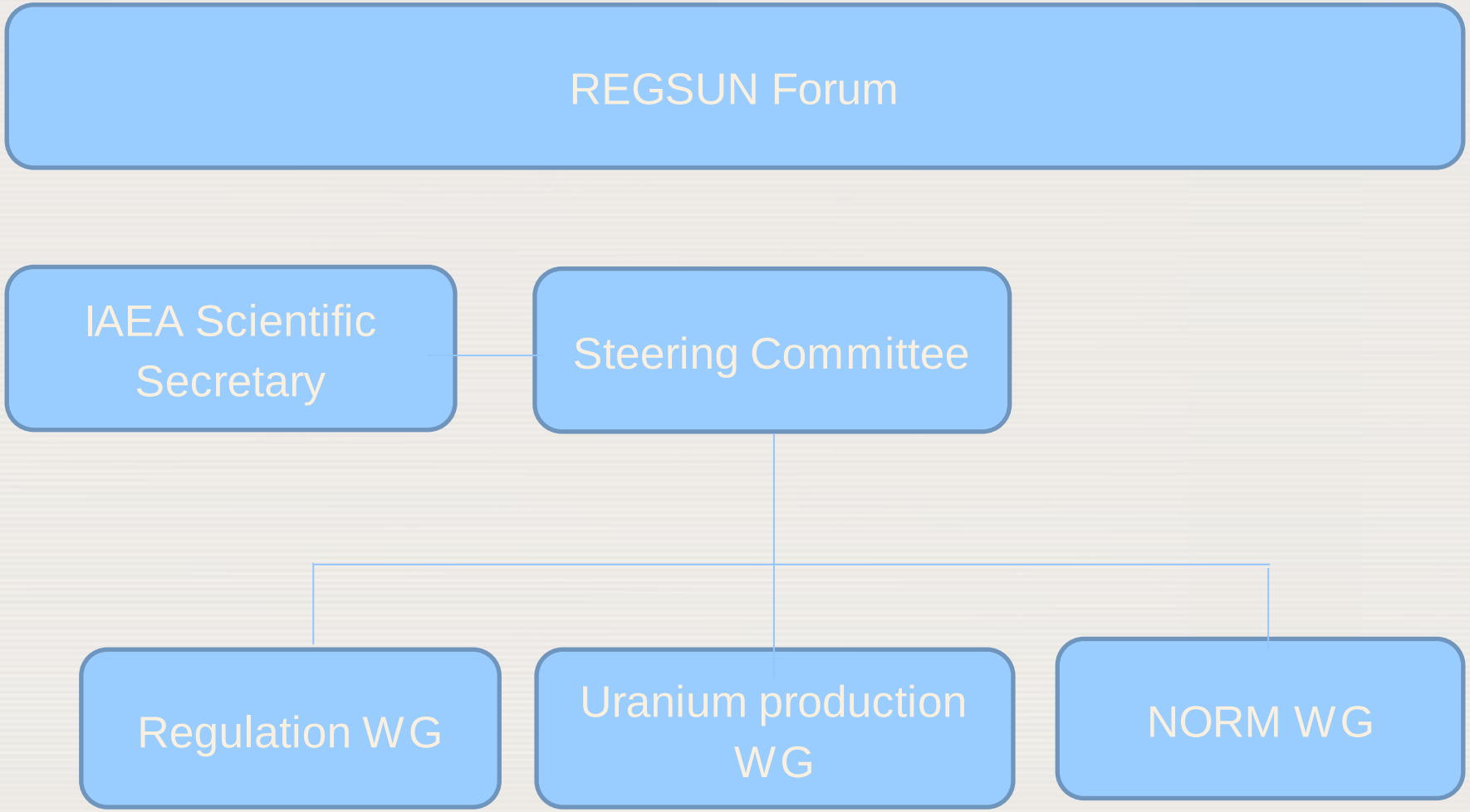
- The Forum is meant for regulatory bodies in Member States, who are undertaking or considering uranium production or the management of NORM residues.

- REGSUN was launched in June 2018. https://gnssn.iaea.org/main/REGSUN/SitePages/Home.aspx

REGSUN Objectives

- To help build capacity in all Member States undertaking or considering uranium production or the management of NORM residues.
- To promote good regulation and safe and environmentally responsible practices, through the application of IAEA Safety Standards.
- To promote and increase the exchange of information and expertise among its participants, including regular updates on best practice approaches, targeted assistance in review and provision of expertise, and identification of gaps in guidance and support.
- To support the utilization of IAEA tools and training materials. And
- To provide strategic input for future IAEA work in areas related to safety of uranium production and NORM residues management.

Organization/Structure



1st REGSUN meeting

- 18-22 June **2018**, Vienna, Austria
- **36** participants representing **27** Member States



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1st REGSUN meeting – activities

⇒**Presentations** from each participating Member State addressing:

- Uranium and/or NORM related activities in the country
- Legislation / Regulatory Framework / Licensing processes
- Management of residues, decommissioning and remediation
- Challenging issues faced by the Member State

⇒Group **endorsed the Terms of Reference** for the Forum

⇒3 **Working groups**

- WG on Uranium Production (Chair Arnaldo Mezrahi – Brazil)
- WG I on NORM (Chair Gary Forsee – USA)
- WG II on NORM (Chair Adam Stackhouse – UK)

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2nd REGSUN meeting (2019)

10-14 June **2019**, Vienna, Austria
28 participants representing **21** Member States



2nd REGSUN meeting (2019) - Activities

- presentations from Member States addressing challenges and approaches to NORM in their country
- Working groups discussions on:
  - Review of the draft TECDOC *Application of Graded Approach to the Safe Management of NORM Residues;*
  - Review of training needs by Member States;
  - Development of the REGSUN information platform;
  - Criteria for a graded approach to NORM;
  - Calculation and assessment methodologies for NORM.

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3rd REGSUN meeting (2020)

7-11 December 2020, virtual event

35 participants representing **19** Member States

Activities:

- Countries presentations (Romania, Ukraine, HERCA,…);
- Presentations & discussions on **REGSUN projects** :
  - Development of IAEA draft **TECDOC** on application of **graded approach** for management of NORM residues
  - Introduction of **Draft Training Framework** including an example training module on monitoring + identification of priorities for training
  - Development of **fact sheets** + example for decommissioning of phosphate facilities
- Discussion on measures to **promote REGSUN**, and to make best use of virtual approaches and the **IT platform**

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3rd REGSUN meeting (2020) - Conclusions

- General agreement on the need to develop **factsheets** and on the proposed structure.
  ⇒ *need to liaise with other relevant groups such as the IRPA NORM task group or relevant industry associations. **Decommissioning** of NORM facilities was identified as a topic of special interest …*

- Need for further development of the **REGSUN platform**

- Discussion on **promotion of REGSUN**:

⇒ *liaise with other initiatives / working groups dealing with NORM, such as IRPA NORM task group, HERCA or European NORM Association.*

⇒ *Suggestion to promote REGSUN through social networks*

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REGSUN 2021

Virtual event : ~80 participants from 32 countries

Session: Progress in REGSUN subject areas

- *Terms of references REGSUN*
- *Summary previous REGSUN meetings*
- *Summary IAEA topical meetings on Safety of Uranium Production and NORM*

Session: Status and needs in safety of uranium production

- *Status & challenges for U production in Argentina and Niger*
- *Experiences in training (Czech Republic) + development of IAEA training*
- *Status of IAEA safety publication*

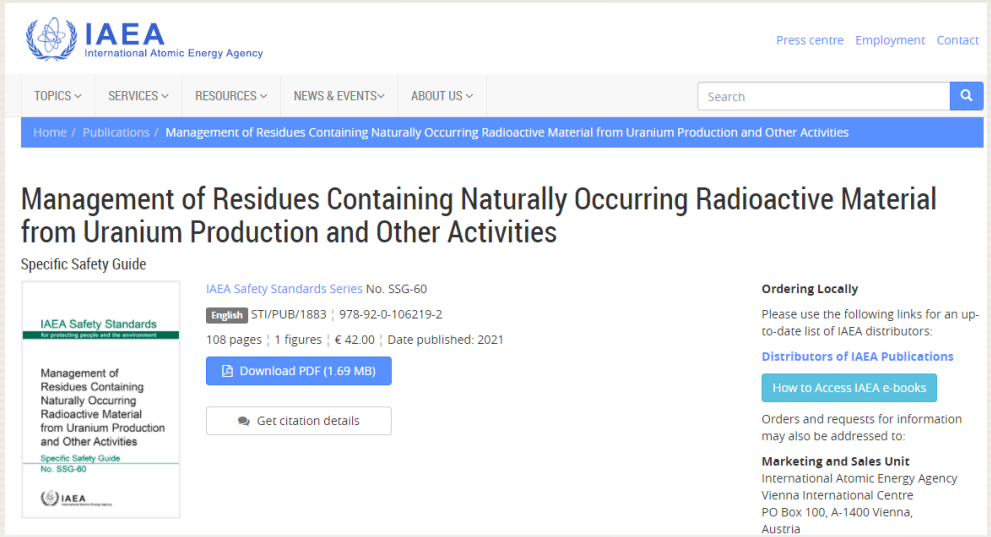
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REGSUN 2021

Session: Status and needs in management of NORM

- *IRPA NORM Task Group*
- *Country experiences: China (training) + Thailand*
- *REGSUN training framework*
- *REGSUN webpage and learning centre*
- *Status of IAEA safety publications for NORM*

(=> announcement of publication of SSG-60 !!)



Session: Feedbacks on needs and Priority analysis

- *Proposed REGSUN Webinar and training the trainer for NORM management*
- *Development of REGSUN web page and REGSUN Learning Centre*
- *Topics of interest in training on management of NORM*
- *Topics of interest of development of IAEA new publications for management of NORM*
- *Topics of interest for REGSUN2022*

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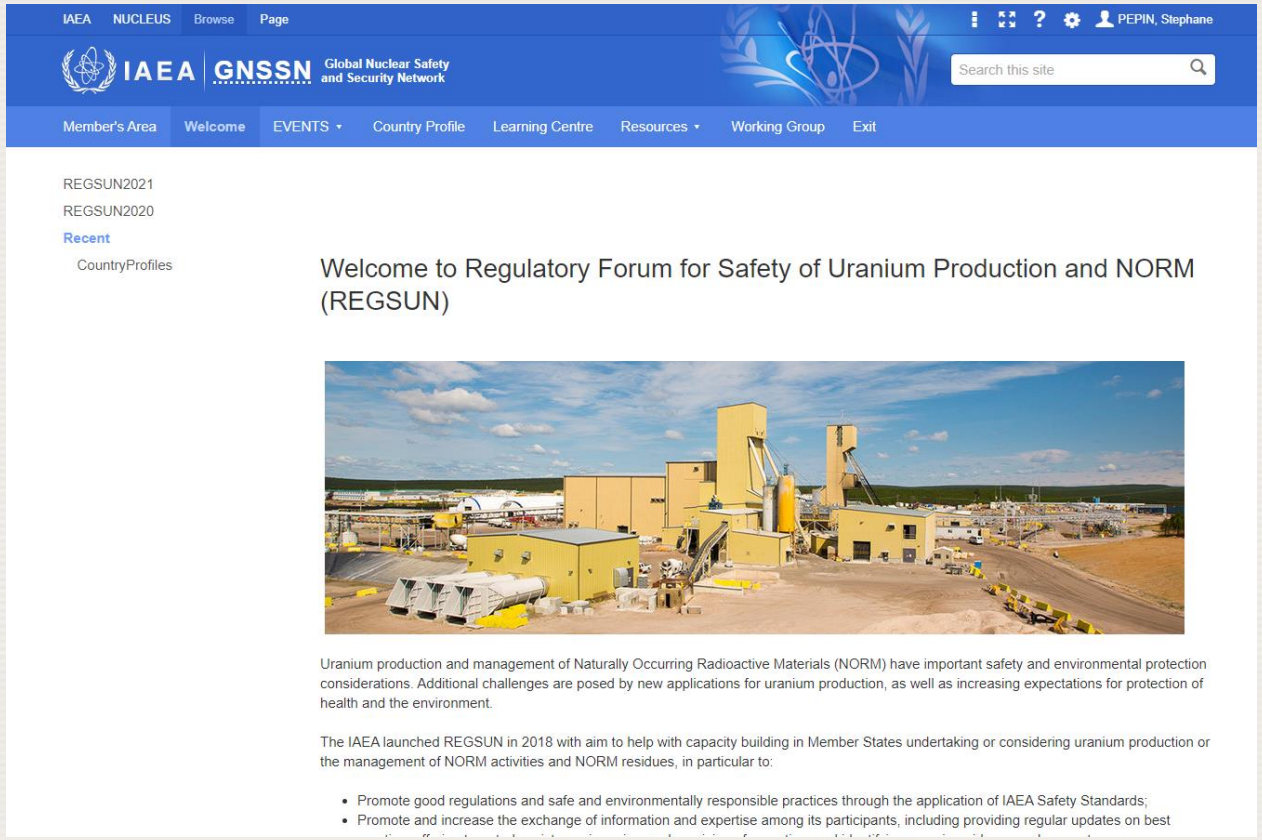
REGSUN webpage and learning centre

Go to : https://gnssn.iaea.org/main/REGSUN/SitePages/Home.aspx

(or “google” “IAEA REGSUN” …)

Members Area

⇒ Through nucleus account



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REGSUN webpage and learning centre

Overview webpage:

- **Welcome** page (link to events – incl. presentations given at previous REGSUN meetings);
- **Events** webpage
- **Country profile**
- **Resources** (including repository of relevant IAEA publications)
- Link to material of **IAEA TC project** on management of NORM residues
- Development of **training modules**
- …



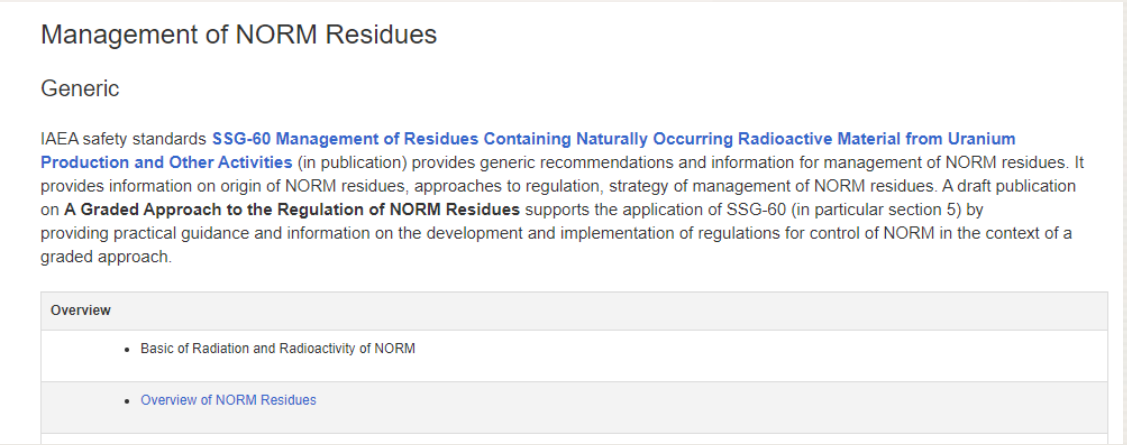
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REGSUN webpage and learning centre

Learning Centre for Safe and Sustainable Uranium Production and NORM Residue Management – overview :

- **Uranium production**
  - topical areas (e.g. safety infrastructure, In situ recovery, …)

- **Management of NORM residues**
  - Generic information (e.g. graded-approach, awareness & identification, …)
  - Sector specific : factsheets, case-studies


Management of NORM Residues

Generic

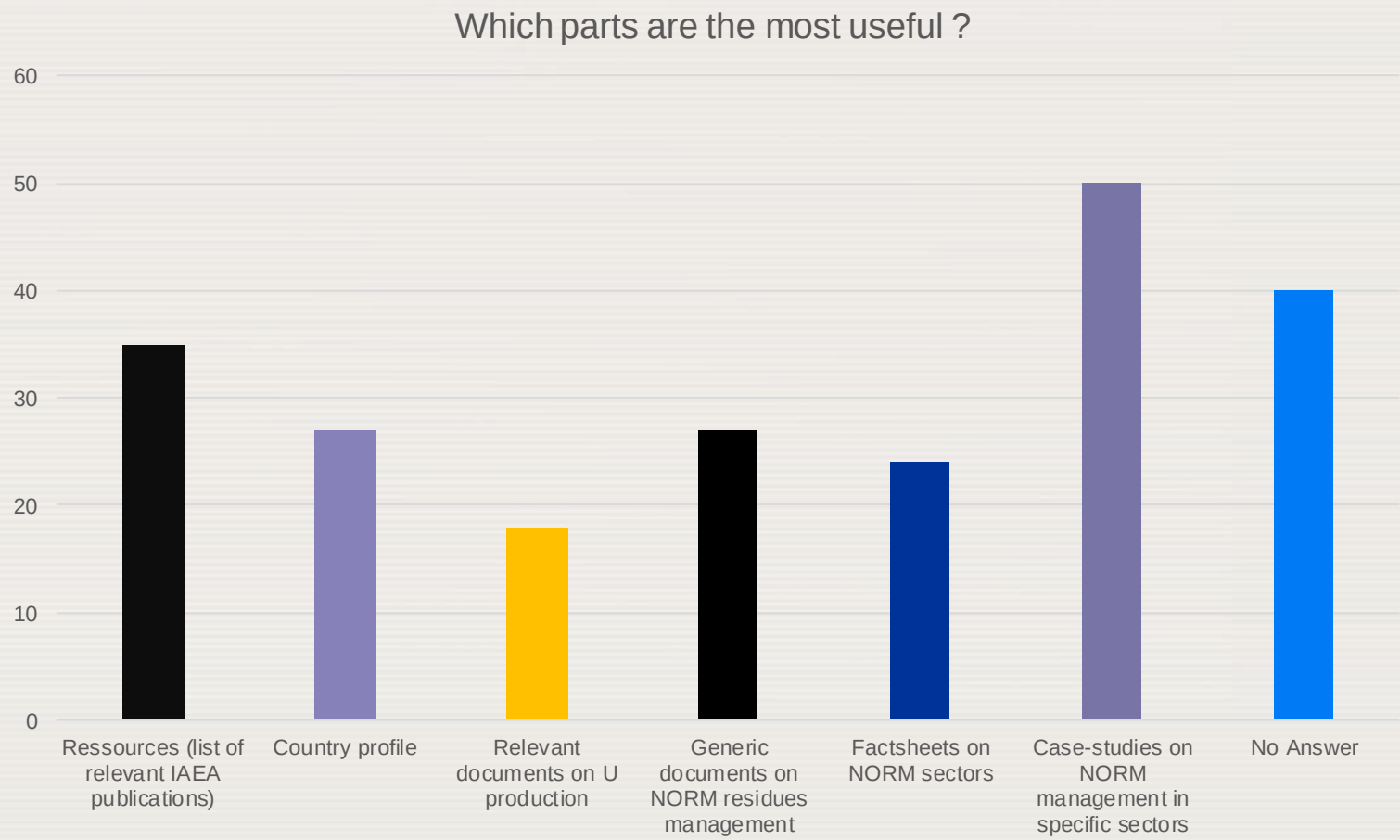
IAEA safety standards **SSG-60 Management of Residues Containing Naturally Occurring Radioactive Material from Uranium Production and Other Activities** (in publication) provides generic recommendations and information for management of NORM residues. It provides information on origin of NORM residues, approaches to regulation, strategy of management of NORM residues. A draft publication on **A Graded Approach to the Regulation of NORM Residues** supports the application of SSG-60 (in particular section 5) by providing practical guidance and information on the development and implementation of regulations for control of NORM in the context of a graded approach.

Overview

- Basic of Radiation and Radioactivity of NORM
- Overview of NORM Residues

REGSUN webpage and learning centre: survey

Which elements of the website / learning centre, do you find the **most useful** ?



Feedback of REGSUN on Development of IAEA Safety Publications for NORM

	Urgently needed	To contribute	Optional way forward
Screening safety assessment	12/56 (21%)	14/56 (25%)	Topical
Reuse and recycling of materials involving NORM	15/56 (27%)	7/56 (13%)	Publication
Decommissioning facilities involving NORM	4/56 (7%)	9/56 (16%)	Topical
Disposal of NORM waste	16/56 (29%)	17/56 (30%)	Publication
Remediation of NORM contaminated sites	8/56 (14%)	2/56 (4%)	Case study
Production of tantalum, niobium and ferro-niobium	4/56 (7%)	1/56 (2%)	Case study
Mining of ores other than uranium ore	19/56 (34%)	12/56 (21%)	Publication
Production of tin, copper, aluminium, zinc, lead, and iron and steel	12/56 (21%)	8/56 (14%)	Topical
Combustion of coal	9/56 (16%)	3/56 (5%)	Case study
Management of NORM Residues from water treatment	11/56 (20%)	9/56 (16%)	Topical
Geothermal energy use	2/56 (4%)	2/56 (4%)	Case study

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Topics of interest for REGSUN 2022

⇒ **Survey during REGSUN 2021**

Please mark 2, what topic are you interested in for the REGSUN 2022?

A. Identification of NORM 9/53 (17%)

B. Develop inventory of NORM 9/53 (17%)

C. Establish regulations for NORM 16/53 (30%)

D. Screening safety assessment 10/53 (19%)

E. Reuse and recycling of materials involving NORM 13/53 (25%)

F. Decommissioning facilities involving NORM 6/53 (11%)

G. Disposal of NORM waste 18/53 (34%)

H. Remediation of NORM contaminated sites 10/53 (19%)

No Answer 14/53 (26%)

Planning for the REGSUN 2022

- Annual Meeting of the Regulatory Forum for Safety of Uranium Production and NORM (REGSUN), **Virtual**, 6-10 June 2022
- The purpose of the event is to review the progress made in activities identified as "high priority" at the 2021 Annual Meeting of the Regulatory Forum for Safety of Uranium Production and Naturally Occurring Radioactive Materials (REGSUN).

Conclusions

REGSUN

- Supports the implementation of IAEA requirements regarding safe management of NORM from uranium production and other activities as described in **SSG-60**
- Facilitates **exchange of information** and of national practices between Member States
- Supports development of **training modules**
- Serves as a web-based **learning centre**

Next REGSUN Annual Meeting: Virtual, 6-10 June 2022

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