

Case Study:

Development of a Nuclear Safety Knowledge Management (NSKM) Programme in a Regulatory Body

GROUP 3: Task 1

Thursday July 14th 2022

Regional Workshop on Nuclear Safety Knowledge Management
12-15 July 2021
Virtual Meeting

Group members

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SWOT Analysis

Strengths:

- ANRB has good reputation in the neighbouring country
- ANRB has a good reputation, public acceptance records and maintains a good relationship with the media
- ANRB is an independence RBThe current head of the RB is a well-educated nuclear expert
- Staff with knowledge on KM tools
- ANRB has 40 years of experiences in nuclear regulation
- Existing next-in-rank personnel (KM Champion)

SWOT Analysis

Weaknesses:

- Many staff retiring soon (2 – 4 years)
- Outdated management process
- ANRB don't have KM programme
- Didn't plan or implement any measures to avoid the knowledge loss of the retiring personnel
- ANRB staff lack of awareness of the important of KM

SWOT Analysis

Opportunities:

- The country has nuclear research reactor that can be used for research and training purposes
- The country has some experts in the field of NPP
- The country has established universities that offer courses that may be relevant to ANRB functions
- The country is a member of IAEA and a member of regional knowledge networking
- Austria is an economically powerful country (budget)
- The government has supported the new graduates recruitment and reviewing current national legislation (IRRS mission in 2024)

SWOT Analysis

Threats:

- Blue River NPP has been identified deficiencies in leadership
- The medical institution has introduced new technology that has not mastered by the ANRB
- New medical technologies creates unplanned challenges (Recruiting regulatory staff with relevant knowledge for the new practices)
- Recruiting regulatory staff, within the country, is a difficult task (Very limited number of applicant to the new faculty)
- IRRS Mission in 2024

KM Challenges and Risks

Identify the challenges/issues of the regulatory body from a knowledge management perspective.

- Many staff will be retiring soon (include the head of RB)
- New employee will take some time to master the knowledge needed
- New technology will be applied, the re-assignment due to unplanned activities regarding the medical application
- Planning the KM plan since the RB hasn't have one
- Outdated regulations and guides
- Outdated management process



IAEA

Atoms for Peace and Development

Thank you!



Case Study:

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GROUP 3: Task 2

Thursday, July 15th 2022

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Task 2: KM Strategy

Develop a high-level **KM Strategy** outlining:

- A lead or vision statement (clearly define the purpose)
- Set objectives to address challenges and risks (consider people, process, technology, structure and culture)

Please note:

- Text can be presented in bullet form
- Focus should be on the content, not how you present the information
- When presenting your KM strategy and plan, aim for no more than 10 minutes to allow time for questions

KM Strategy

- Vision Statement:

ANRB commits to manage the nuclear knowledge effectively in order to retain and enhance national nuclear and radiation regulatory infrastructure.

Objective

1. To capture and create important bodies of nuclear knowledge within the organization
2. To enhance and build new nuclear knowledge that is necessary and important for personnel to be able to use in their work
3. To carry out knowledge management in a systematic and clear process including bringing in technology to operate in order to access and transfer knowledge more conveniently and easily
4. To link knowledge management with the functions and missions of the organization
5. To create a culture and awareness of knowledge management among personnel in the organization

Task 2: KM Plan

Develop a **KM Plan** (the implementation roadmap) that includes:

- Activities that you believe should be pursued (consider various KM methods and tools - see day 1 presentations for inspiration)
- Resource needs and defined roles
- Timeline and financial budget*
- Stakeholder engagement and programme communications
- Change management activities
- Internal interdependencies (e.g., staffing, learning, training, IT)
- National alignment / cooperation
- Key Performance Indicators (KPIs)

*Financial budget would be a consideration in a real KM plan but can be omitted for the case study

To capture and create important bodies of knowledge within the organization

Activity	Resource	Timeline	Budget	KPIs
Conduct knowledge capture and creation interviews with employees	Retiring employees / HR Officers	6 - 12 Months	None	185 interviews
SARCoN tools to identify current knowledge gap	Employee	3 Months	None	Competency profiles for 185 staff

To enhance and build new knowledge that is necessary and important for personnel to be able to use in their work

Activity	Resource	Timeline	Budget	KPIs
Develop on the job training (OJT) programs	HR/Experts	3 - 6 Months	Yes	5 OJT programmes
Refresher training for inspectors	HR/Experts	Whole year	Yes	80% of inspectors involvement
E-learning platform	HR/Experts/IT	1 year	Yes	1 e-learning module

To carry out knowledge management in a systematic and clear process including bringing in technology to operate in order to access and transfer knowledge more conveniently and easily

Activity	Resource	Timeline	Budget	KPIs
Update search engine capabilities on knowledge database	IT	2 Months	Yes	85% staff accessing the database in a year
Update the document management system	IT	6 - 12 Months	Yes	1 ISO certification

To link knowledge management with the functions and missions of the organization

Activity	Resource	Timeline	Budget	KPIs
Strategic planning on Knowledge Management	Top Management / HR / Consultant	6 - 9 Months	Yes	One (1) strategic planning documents
Periodic review meeting of Strategic Plan (KM)	Top Management / HR / Consultant	Whole year	Yes	Two (2) reports per year

To create a culture and awareness of knowledge management among personnel in the organization

Activity	Resource	Timeline	Budget	KPIs
Coaching and mentoring program	Employee / Experts	1 year / cycle	None (Yes for food)	30 mentor – mentee pair
Knowledge Sharing Platform (Technical Talk)	Employee / HR / Management	Whole year	Yes	12 / year
Awareness program (Townhall session)	Employee / HR / Operators / Management	Whole year	Yes	6 / year
Train the Trainers (ToT) Program	Employee / HR / Experts	6 Months	Yes	2 program



Questions?

Thank you