Systematic Assessment of Regulatory Competences (SARCON) V18a

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Why Competence Management?

- Arrangements for competence management is a key factor to:

  - Support the implementation of article 8 of CNS
    (Convention on Nuclear Safety – "regulatory body with adequate competence and human resources")

  - Support the implementation of Modules 3 and 4 of the IRRS and other IAEA Safety Standards *(Module 3: "Responsibilities and functions of the regulatory body", Module 4: "Management system of the regulatory body")*

  - Identify gaps between regulatory required competences and the existing resources

  - Develop and implement tools and programmes to fill the gaps

  - Review periodically the competence needs and training programmes

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SARCoN Guidelines

No.	Level	Basis
1	Organizational	Quadrant areas
2	Organizational	KSAs
3	Individual	Quadrant areas
4	Individual	KSAs

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The quadrant model of competences

4. Personal and interpersonal effectiveness

4.1 Analytical thinking and problem solving
4.2 Personal effectiveness and self-management
4.3 Communication
4.4 Team work
4.5 Managerial competences and leadership
4.6 Safety Culture

1. Legal, regulatory and organizational basis

1.1 Legal basis
1.2 Regulatory policies and approaches
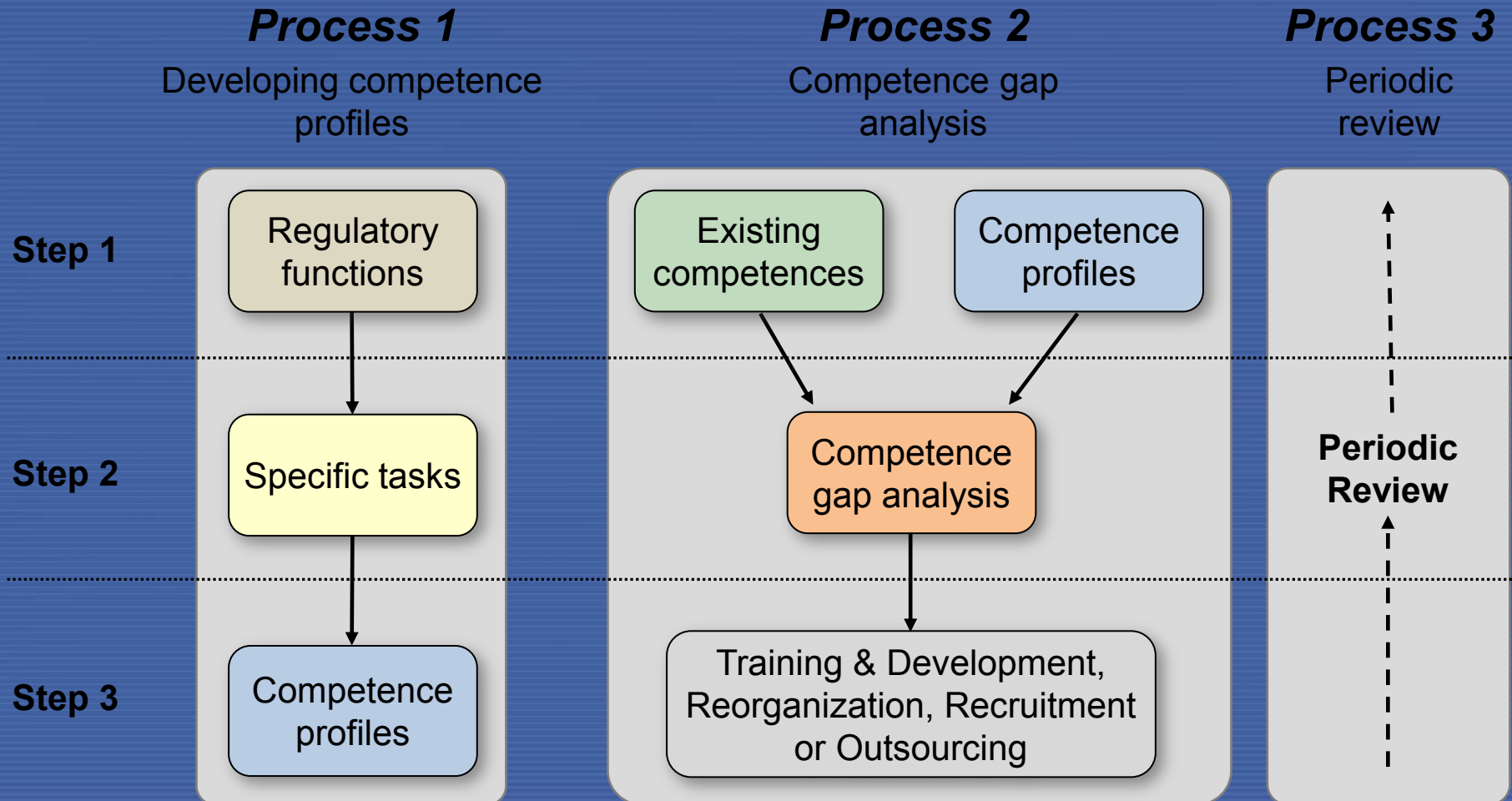1.3 Regulatory and regulatory guides
1.4 Management system

3. Regulatory body's practices

3.1 Review and assessment
3.2 Authorization
3.3 Inspection
3.4 Enforcement
3.5 Development of regulations and guides

2. Technical disciplines

2.1 Basic science and technology
2.2 Applied schience and technology
2.3 Specialized science and technology

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The step based approach

	Process 1 — Developing competence profiles	Process 2 — Competence gap analysis	Process 3 — Periodic review
Step 1	Regulatory functions	Existing competences / Competence profiles	
Step 2	Specific tasks	Competence gap analysis	Periodic Review
Step 3	Competence profiles	Training & Development, Reorganization, Recruitment or Outsourcing	

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Process 1 - Step 1

Regulatory functions

Determine the regulatory functions of the organizational unit

Legal Framework / organizational mandate

IAEA Safety Standards → Regulatory functions → Organizational structure → Management system

IAEA guidance through Safety Standards:

- GSR Part 1
- GS-R-3
- GS-G-1.1
- GS-G-3.1

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Process 1 - Step 1

Regulatory functions

Functions according to DS472 - Organization and staffing of a regulatory body

Core Functions:

- Authorization and notification
- Review and assessment of facilities and activities
- Inspection of facilities and activities
- Enforcement of regulatory requirements
- Development of regulations and guides
- Emergency preparedness
- Communication and consultation with interested parties
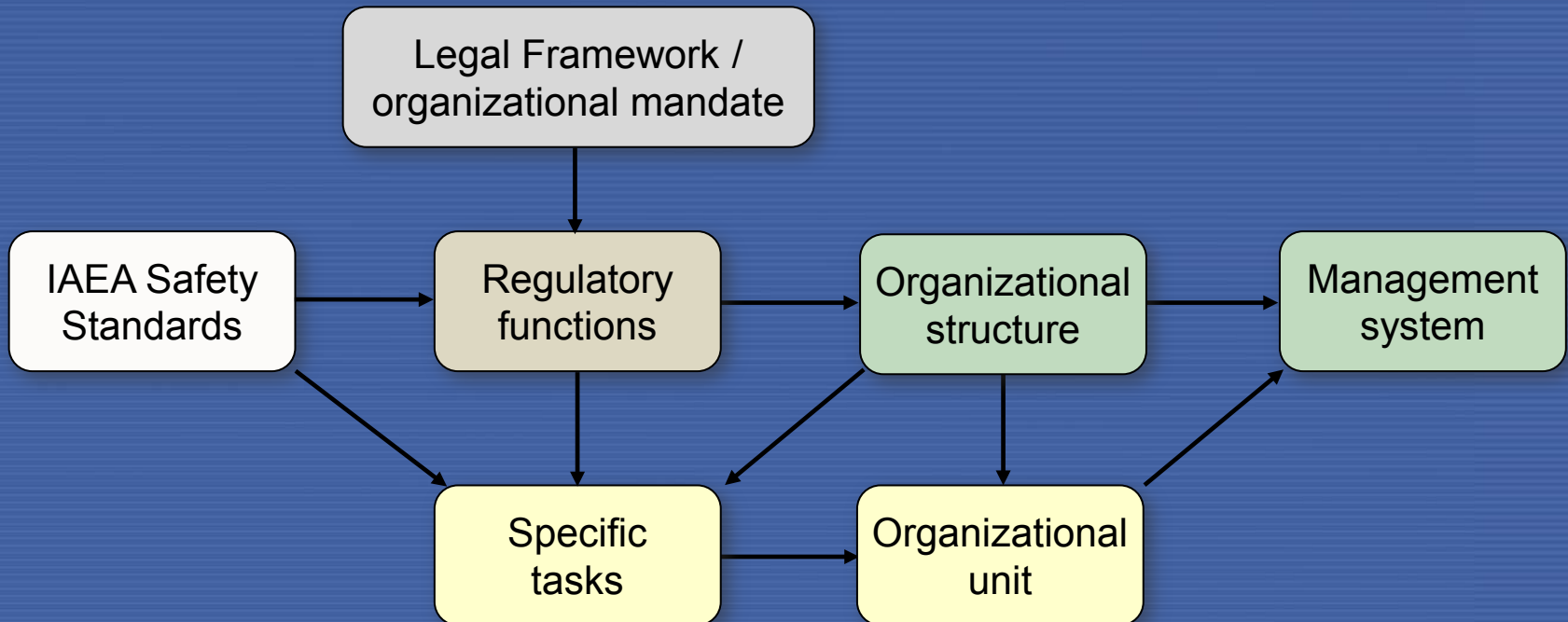
Supplementary Functions:

- Administrative support
- Legal assistance
- External expert support
- Advisory committees
- Research and development
- Liaison with other organizations
- International cooperation

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Specific tasks

Determine the specific tasks of the organizational unit

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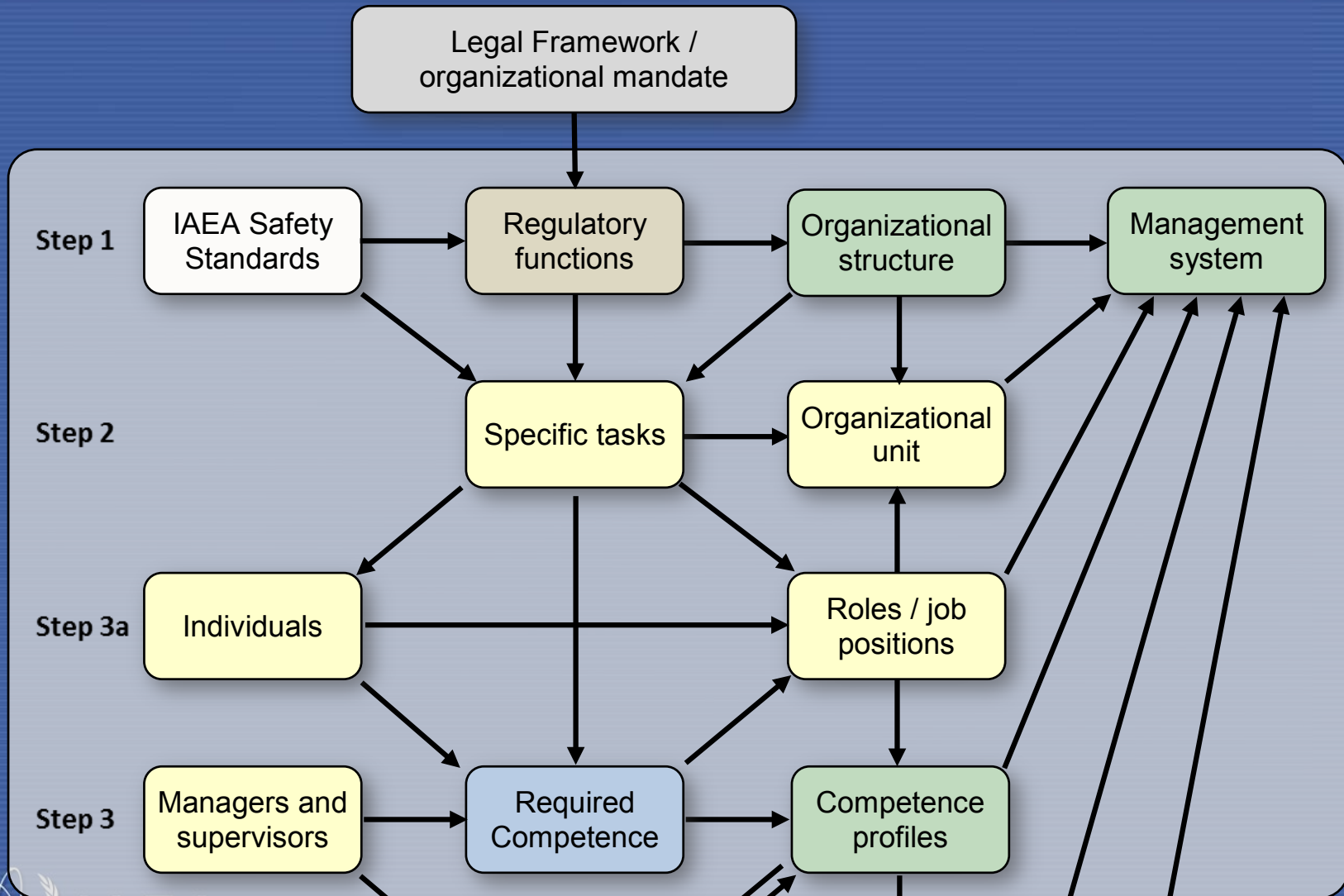
Process 1 - Step 2

Specific tasks

Determine the specific tasks of the organizational unit

- These tasks should be collected in the management system (GS-R-3)

- Appendix 1 of Safety Reports Series No. 79 provides examples of tasks for the main functions

- These are some examples:
  - "Monitoring national and international researches and developments in nuclear field;"
  - "Assessment of convenience of aims and politics of Authority;"
  - "Provide, co-ordinate and monitor related projects."

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Legal Framework /
organizational mandate

Step 1

IAEA Safety Standards → Regulatory functions → Organizational structure → Management system

Step 2

Specific tasks → Organizational unit

Step 3a

Individuals → Roles / job positions

Step 3

Managers and supervisors → Required Competence → Competence profiles

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- Translation and adaptation of 4-Q approach:
  - Definitions of competences,
  - Definition of KSAs
  - New KSAs?
    - New SARCoN Questionnaire?
    - Develop a Matrix: Task versus KSA

	TASKS/ LEVEL of Proficiency			
KSA	Task1	Task2	Task3	Task4…
KSA1	B	NA	H	M
KSA2…	NA	NA	NA	B

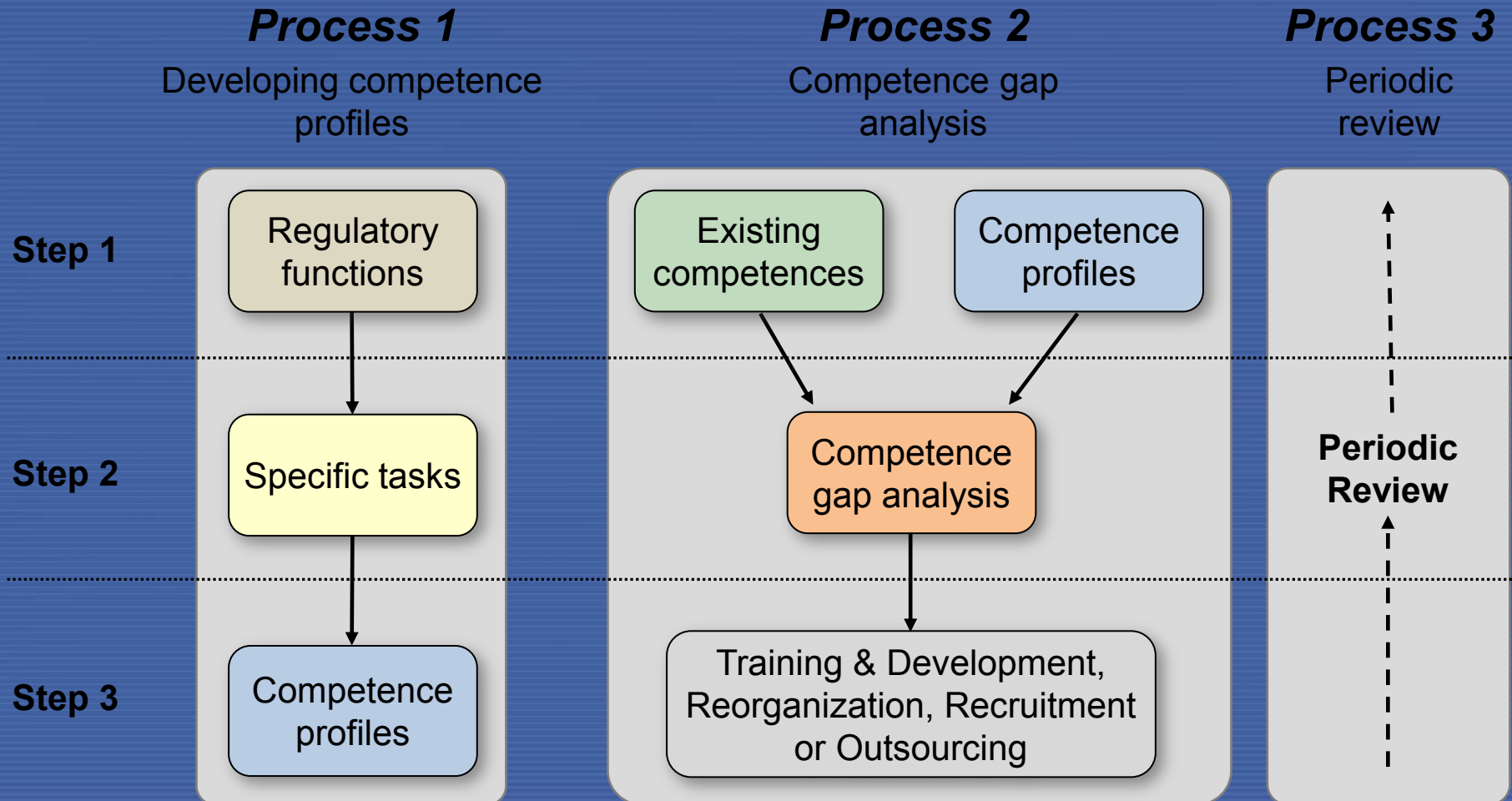**IAEA**

Process 1 - Step 3

Required KSAs

Assessment of the required knowledge, skills and attitudes

- Carried out by managers
- The outcomes are competence profiles for tasks or generic job positions

Tasks for Nuclear Science and Application Division : Overview of the Quadrant Areas

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The step based approach

Process 1
Developing competence profiles

Process 2
Competence gap analysis

Process 3
Periodic review

Step 1
- Regulatory functions
- Existing competences
- Competence profiles

Step 2
- Specific tasks
- Competence gap analysis
- **Periodic Review**

Step 3
- Competence profiles
- Training & Development, Reorganization, Recruitment or Outsourcing

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Process 2 - Step 1

Existing personnel KSAs	Assessment of the existing knowledge, skills and attitudes

- Self-assessment by the staff
- With support and reviewed by the managers
- Other methods: interviews
- Discuss differences
- Can also be done in groups
- The outcomes are competence profiles of the existing staff for the defined tasks
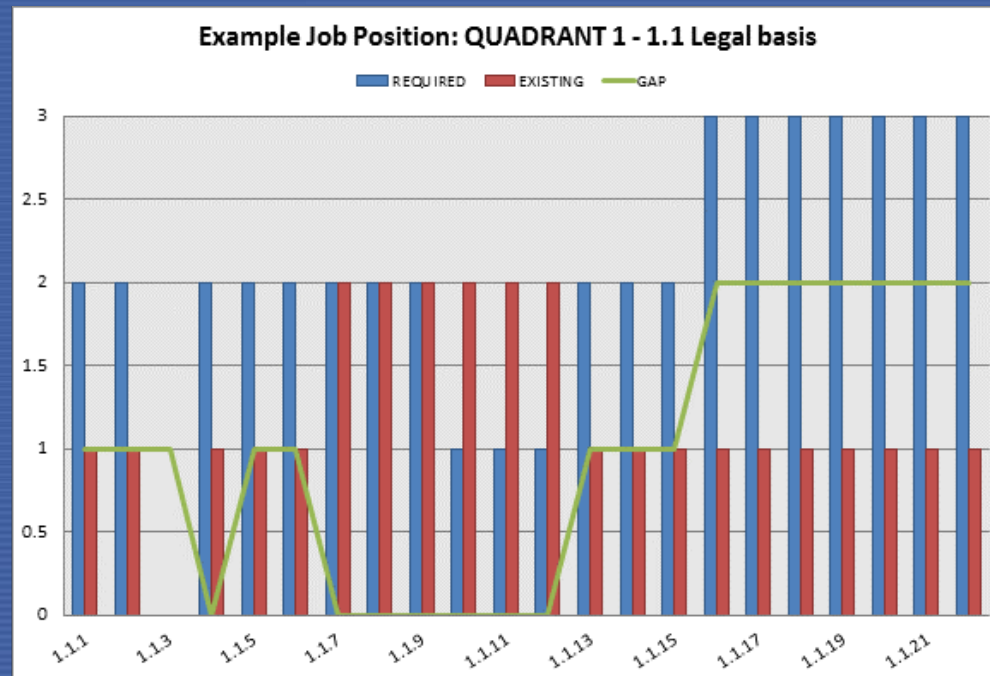
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The step based approach
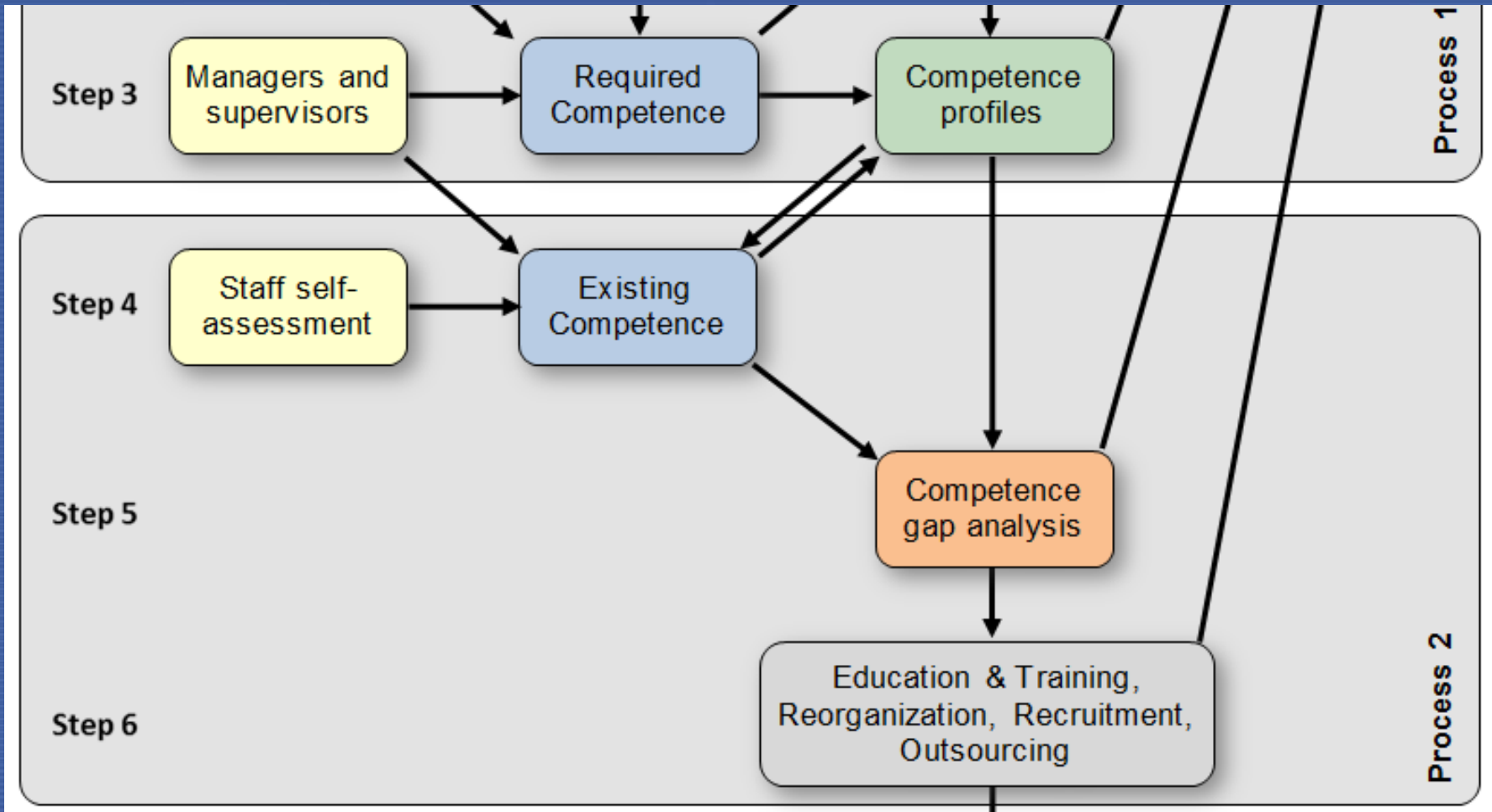
Process 2 - Step 2

Competence gap analysis

Comparison of existing and required competences

- The Training Coordinator needs to analyse the assessment of both existing and required competences
- SARCoN comes with a tool that helps to show these gaps

Example Job Position: QUADRANT 1 - 1.1 Legal basis

Process 2 - Step 3

Training & Development, Reorganization, Recruitment or Outsourcing

Developing a plan for acquiring competences

- Safety Reports Series No. 79 defines the following methods of acquiring competences:
  - Establishing training and development programmes
  - Participation in Knowledge networks
  - Reorganization and replacement
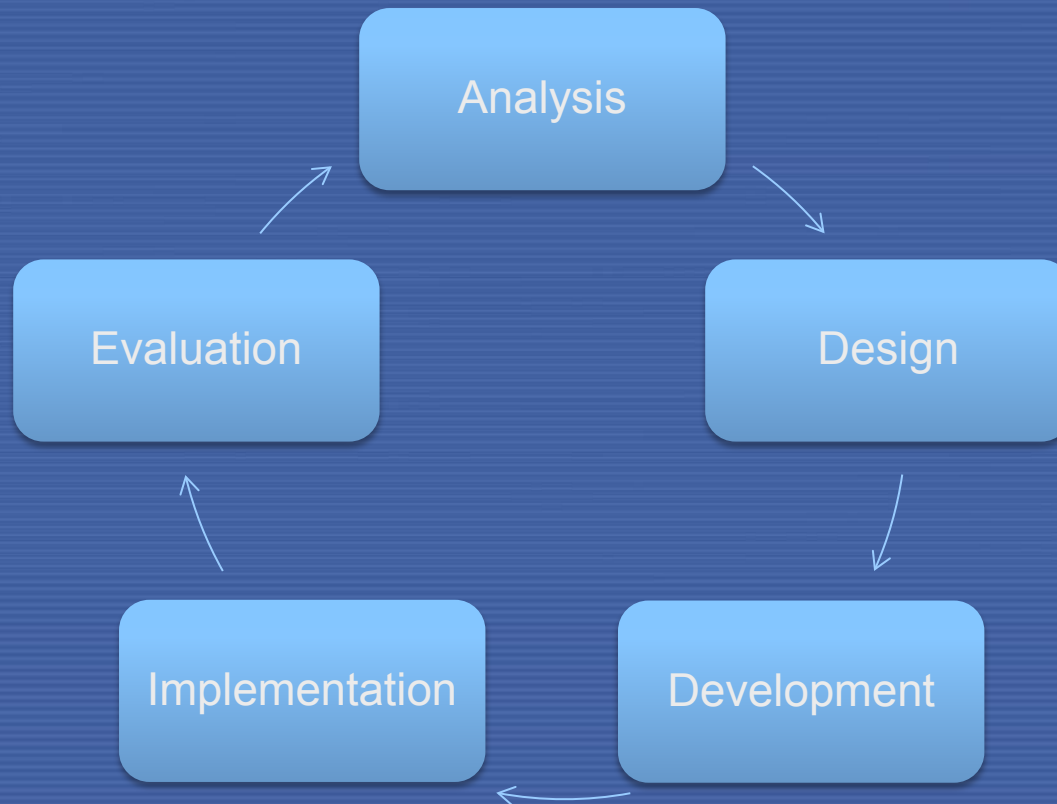 - Recruitment
  - Use of external support

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Training & Development, Reorganization, Recruitment or Outsourcing

Developing a plan for acquiring competences

- Using the Systematic Approach to Training (SAT)

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Process 2 - Step 3

Training & Development,
Reorganization, Recruitment
or Outsourcing

Developing a plan for acquiring competences

Methods of acquiring competence (SRS-79):

- ✓ Reorganization and Mapping

- ✓ Establishing training and development programmes

- ✓ Outsourcing (use of external support)

- ✓ Participation in knowledge networks

- ✓ Recruitment

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Process 2 - Step 3

Training & Development, Reorganization, Recruitment or Outsourcing

Developing a plan for acquiring competences

➢ Training needs and learning points related to specific competences are converted to
  ➢ learning objectives, including evaluation strategies,
    ➢ organized into training plans, taking into account the available options and methods for training.

Choice of Training depends on factors such as:
  ✓ the geographical location of the participants,
  ✓ availability of leave for training purposes,
  ✓ the costs and availability of equipment and materials.

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Process 2 - Step 3

Training & Development, Reorganization, Recruitment or Outsourcing

Developing a plan for acquiring competences

Possible training methods depend on:
- ✓ Internal classroom training;
- ✓ External classroom training;
- ✓ Distance learning, using manuals, computers and videos, among others;
- ✓ On-the-job training (OJT);
- ✓ Structured self-study;
- ✓ Laboratory training, such as instrument use;
- ✓ Coaching and mentoring.

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Process 3

Periodic Review

- Due to changes within the organization and to monitor the success of the acquired competences, the assessment needs to be repeated periodically.

- It is recommended to repeat the assessment every 3 years

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Process 3

Assessment criteria

- **Basic** = General competence in the area concerned

- **Medium** = A competence level sufficient in routine cases

- **High** = A competence level needed for more sophisticated cases or at the strategic level within the RB

- More detailed examples of definitions can be found in Appendix II of SARCoN guidelines V18a

- Status: draft submitted for comments

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Thank you for your attention!

- For more information visit:
http://www-ns.iaea.org/training/ni/sarcon.asp

- Or contact us at:
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