

WS on competence frameworks for research reactor regulation

IAEA KINS ANNuR AAEA

10 -14 October 2016

Rabat (Morocco)

The SARCoN Tool



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SARCoN Guidelines |1

- The **S**ystematic **A**ssessment of **R**egulatory **C**ompetence **N**eeds Guidelines:
 - Describe a methodology and a process to manage the competence and identify the training needs for the regulatory body.
 - Provide examples of a questionnaire for self assessment.
 - Should be used in conjunction with the draft Safety Report (currently under revision)

Terms of Reference for the new Tool:

- Simple, self explaining and user friendly
- More flexibility
- No internet connection or installation
- Basic instructions and tasks included
- Just one file with Click and go

SARCoN Tool |3

New important features:

- Multiple Users
- New User Interface
- Editable Database
- Separate editing of Job KSAs
- Back-Up Function
- Just one file with Click and go



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Welcome to the Systematic Assessment of Nuclear Installations Regulatory Competence Needs Application Tool (SARCoN)

INTRODUCTION

START SARCoN Tool

* Please make sure that the content is enabled!

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Introduction

GENERAL INFORMATION:

- This application is a help tool to apply the guidelines for SARCoN (Systematic Assessment of Regulatory Competence Needs) with a focus to nuclear Installation Safety
- It is highly recommended to read the guidelines before application of the software
- To download the guidelines please click [HERE](#)

BACK

NEXT

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Introduction

THE ROLE AND TASKS OF THE TRAINING COORDINATOR (TC):

- It is indicated in the guidelines, a TC must be appointed in order to manage the process of Training Needs Assessment (TNA)
- Functions of the Training Coordinator include:
 - a) Plan the TNA
 - b) Brief management and staff on how to conduct the TNA
 - c) Organize and supervise the implementation of each step of the Gap Analysis
 - d) Use the results to quantify the gaps
 - e) Consider how to fill the gaps by recruitment, training and outsourcing
 - f) Report the results of the analysis and recommend means to fill the gaps to the regulatory body's management
 - g) For those gaps to be filled by training, develop a training programme in consultation with other staff and management
 - h) Supervise implementation of the training programme
 - i) Evaluate the training results
 - j) Suggest future training actions or alternative measures to ensure regulatory competence in the short, medium and long term
- This application assists the TC by computing and representing graphs of the competence's gaps

BACK

NEXT



Introduction

THE PROCESS OF TRAINING NEEDS ASSESSMENT (TNA):

- SARCoN recommends a step-by-step approach to identify the gap between the existing and the required competences and define the associated training needs

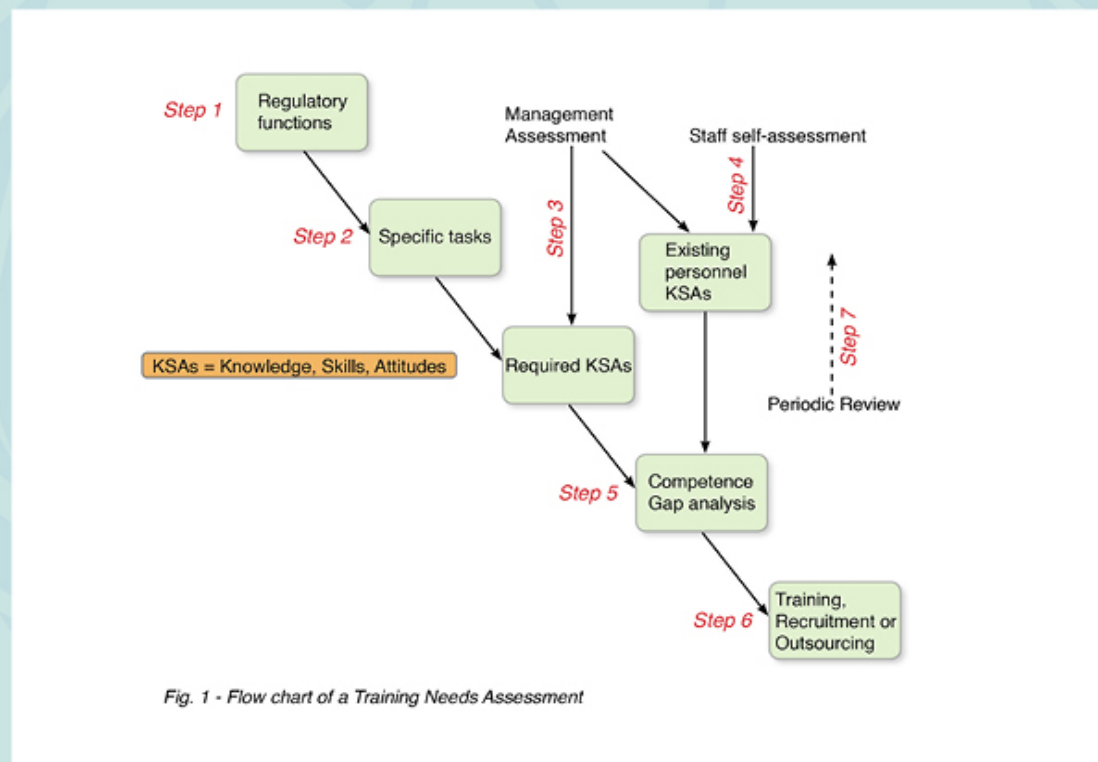


Fig. 1 - Flow chart of a Training Needs Assessment



Introduction

STEP 1: DETERMINE THE REGULATORY FUNCTIONS OF THE ORGANIZATIONAL UNIT AND THE REQUIRED COMPETENCES

- The information about the functions of each unit should be available in the Management System documentation
- SARCoN advises a quadrant model of regulatory competences

4. Personal and interpersonal effectiveness competences

- 4.1 Analytical thinking, problem solving and decision making
- 4.2 Personal effectiveness
- 4.3 Communication
- 4.4 Teamwork
- 4.5 Management

3. Regulatory practices competences

- 3.1 Safety focused analytical techniques
- 3.2 Inspection techniques
- 3.3 Assessment techniques
- 3.4 Investigation techniques

1. Legal basis and regulatory processes competences

- 1.1 Legal basis
- 1.2 Regulatory processes
- 1.3 Regulatory guidance documents
- 1.4 License and licensing documents
- 1.5 Enforcement process

2. Technical disciplines competences

- 2.1 Basic technology
- 2.2 Applied technology
- 2.3 Specialized technology

All the staff of the Regulatory Body must have basic knowledge of all the four quadrants represented in the table.

However, depending on the specific function of the unit under assessment i.e. drafting regulations or conducting inspections, one of the quadrants i.e. quadrant 1 related to "Legal basis" or quadrant 3 related to "Regulatory practices", might be more important and competence demanding for the unit.

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Introduction

STEP 2 & 3:

- The regulatory functions can be broken down into tasks (step 2). Each task can in its turn be broken down into specific KSA (Knowledge, Skills and Attitudes)
- This application provides a comprehensive compilation of competences in support of the quadrant model

[BACK](#)[NEXT](#)

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Introduction

STEP 4:

CONDUCT THE ASSESSMENT OF THE GAPS THROUGH THE QUESTIONNAIRES

- This application is based on questionnaires in which the required competences of the unit are specified and inputted usually by the unit manager. For each of the required competences, the unit staff inputs in their evaluation of the existing competence level for that need.
- The gap is then calculated as the difference between both inputs
- Depending on the organizational unit, the questionnaires can be filled in in different ways:
 - a) One questionnaire is filled in for every job position and every person in the unit
 - b) One questionnaire is filled in by the consolidated opinion of a team when a team of various individuals are performing similar tasks within the unit

BACK

MAIN MENU

CLOSE

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Welcome to the Systematic Assessment of Nuclear Installations Regulatory Competence Needs Application Tool (SARCoN)

INTRODUCTION

LOGIN

Password:



QUIT

LOGIN

3 different types
of users defined:

- TC
- Manager
- Staff

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SARCoN APPLICATION TOOL FOR ASSESSMENT OF COMPETENCES

Select your job position and fill in the competence level either individually or with your team

Please note that the way of inputting in the existing competences can be done either way:

- The questionnaire is filled in for every job position and every person in the unit OR by the consolidated opinion of a team, consisting of various individuals, who are performing similar tasks within the unit

current job positions:

Assessor
Auditor
Inspector
Legal Adviser

Job positions created by the Manager

4. Personal and interpersonal effectiveness competences

- 4.1 Analytical thinking, problem solving and decision making
- 4.2 Personal effectiveness
- 4.3 Communication
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- 4.5 Management

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Choose a quadrant to go to

Questionnaire

SAVE & QUIT

MAIN MENU

NEXT



SARCoN APPLICATION TOOL FOR ASSESSMENT OF COMPETENCES



QUADRANT 1 Competences Related to Legal Basis and Regulatory Processes

Select the job position:

Inspector

1.1 Legal Basis Competence

This competence is the ability to comprehend, interpret and use relevant documents that establish the legal requirements for obtaining a license, and the powers of the regulatory staff and the limits to these powers.

- High:** In-depth knowledge and ability or work experience to factor in complex relevant legal considerations while performing own regulatory duties or supervising others in their duties.
- Medium:** Full understanding of the basic relationship between the relevant/applicable legal requirements and one's own regulatory duties and those of subordinates;
- Basic:** Basic knowledge of national nuclear and non-nuclear legislation relevant/applicable to nuclear regulation (e.g.: acts, decrees regulations in nuclear/industrial safety, environmental regulations, applicable international commitments, etc.);

No.	KSA	KSA Levels:	Existing
1.1.1	Comprehension of the central government's nuclear laws and decrees as well as other laws and decrees that apply to a licensed nuclear facility		High
1.1.2	Comprehension of the applicability to the nuclear industry of the laws and decrees of the local jurisdictions and authorities		High
1.1.3	Comprehension and use of the regulatory body's regulations within limits as per interpretations offered by legal counsels and recorded experience		High
1.1.4	Comprehension of the rights of all stakeholders affected directly or indirectly by the provisions of the legal		

< FOURTH QUADRANT

SAVE & MENU

1.1

1.2

1.3

1.4

1.5

SECOND QUADRANT >

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SARCoN APPLICATION TOOL FOR ASSESSMENT OF COMPETENCES

In order to fill in the questionnaire, you have to create a new job position first

Please note:

- If your unit has various relevant job positions, this process should be repeated for each job position title as necessary and saved under an appropriate name each time
- A job position and its tasks might be similar for various individuals in a team

existing job positions:

Assessor
Auditor
Inspector
Legal Adviser

create or delete job positions:

New

Duplicate

Rename

Delete

SAVE & QUIT

MAIN MENU

NEXT >

Would you like to go to a specific quadrant?

We recommend to start with quadrant 1, then 2, 3 and finish completing quadrant 4.
Click the "NEXT" button to follow this order.

If you want to go directly to a specific quadrant, click on the image below

4. Personal and interpersonal effectiveness competences

- 4.1 Analytical thinking, problem solving and decision making
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- 4.3 Communication
- 4.4 Teamwork
- 4.5 Management

1. Legal basis and regulatory processes competences

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2. Technical disciplines competences

- 2.1 Basic technology
- 2.2 Applied technology
- 2.3 Specialized technology

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In order to fill in the q

Please note:

- If your unit has various relevant job positions, you must create them as necessary and saved under the same unit.
- A job position and its tasks must be created for each existing job position:

existing job positions:

Assessor
Auditor
Inspector
Legal Adviser

create or delete job positions:

New

Duplicate

Rename

Delete

SAVE & QUIT

NEW JOB POSITION

Please enter the title of the job position

Special characters like / * # are not allowed. The maximum length is restricted to 31 characters.

CANCEL

SAVE

RENAME JOB POSITION

Please select the the job position to rename

Special characters like / * # are not allowed. The maximum length is restricted to 31 characters.

CANCEL

RENAME

DEUPLICATE JOB POSITION

Please select the the job position to duplicate

Special characters like / * # are not allowed. The maximum length is restricted to 31 characters.

CANCEL

DUPLICATE

Press SAVE to create a new job position.

Select the job position to be renamed.

Enter the new name

Press RENAME to save

Select the job position to be duplicated.

Enter the name of the new/ duplicated job position

Press DUPLICATE to save

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SARCoN APPLICATION TOOL FOR ASSESSMENT OF COMPETENCES

In order to fill in the questionnaire, you have to create a new job position first

Please note:

- If your unit has various relevant job positions, you should repeat the questionnaire for each job position title as necessary and saved under a different name
- A job position and its tasks must be defined by a team of experts

existing job positions:

Assessor
Auditor
Inspector
Legal Adviser

Select a job position to be deleted

DELETE

Do you want to delete the job position Legal Adviser?

Ja

Nein

Abbrechen

Confirm deletion

create or delete job positions:

New

Duplicate

Rename

Delete

SAVE & QUIT

Press delete to delete the selected job position

would you like to go to a specific quadrant?

1, 2, 3 and finish completing quadrant 4.

click on the image below

Legal basis and regulatory processes competences

- 1 Legal basis
- 2 Regulatory processes
- 1.3 Regulatory guidance documents
- 1.4 License and licensing documents
- 1.5 Enforcement process

3. Regulatory practices competences

- 3.1 Safety focused analytical techniques
- 3.2 Inspection techniques

2. Technical disciplines competences

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NEXT >



SARCoN APPLICATION TOOL FOR ASSESSMENT OF COMPETENCES

QUADRANT 1 Competences Related to Legal Basis

SAVE or DISCARD
the changes.

Issues

SAVE

DISCARD

Select the job position:

Inspector

1.1 Legal Basis Competence

This competence is the ability to comprehend, interpret and use relevant documents that establish the legal requirements for obtaining a license, and the powers of the regulatory staff and the limits to these powers.

High: In-depth knowledge and ability or work experience to factor in complex relevant legal considerations when supervising others in their duties.

Medium: Full understanding of the basic relationship between the relevant/applicable legal requirements and those of subordinates;

Basic: Basic knowledge of national nuclear laws and decrees applicable to nuclear regulatory bodies (e.g., applicable to nuclear regulatory bodies, etc.);

It is possible to insert or delete any question. CAUTION: deleted questions cannot be restored

The questions
are now editable

No.	KSA	KSA Levels:
1.1.1	Comprehension of the central government's nuclear laws and decrees as well as other laws and decrees that apply to a licensed nuclear facility	Required
1.1.2	Comprehension of the applicability to the nuclear industry of the laws and decrees of the local jurisdictions and authorities	
1.1.3	Comprehension and use of the regulatory body's regulations within limits as per interpretations offered by legal counsels and recorded experience	
1.1.4	Comprehension of the rights of all stakeholders affected directly or indirectly by the provisions of the legal	

Insert

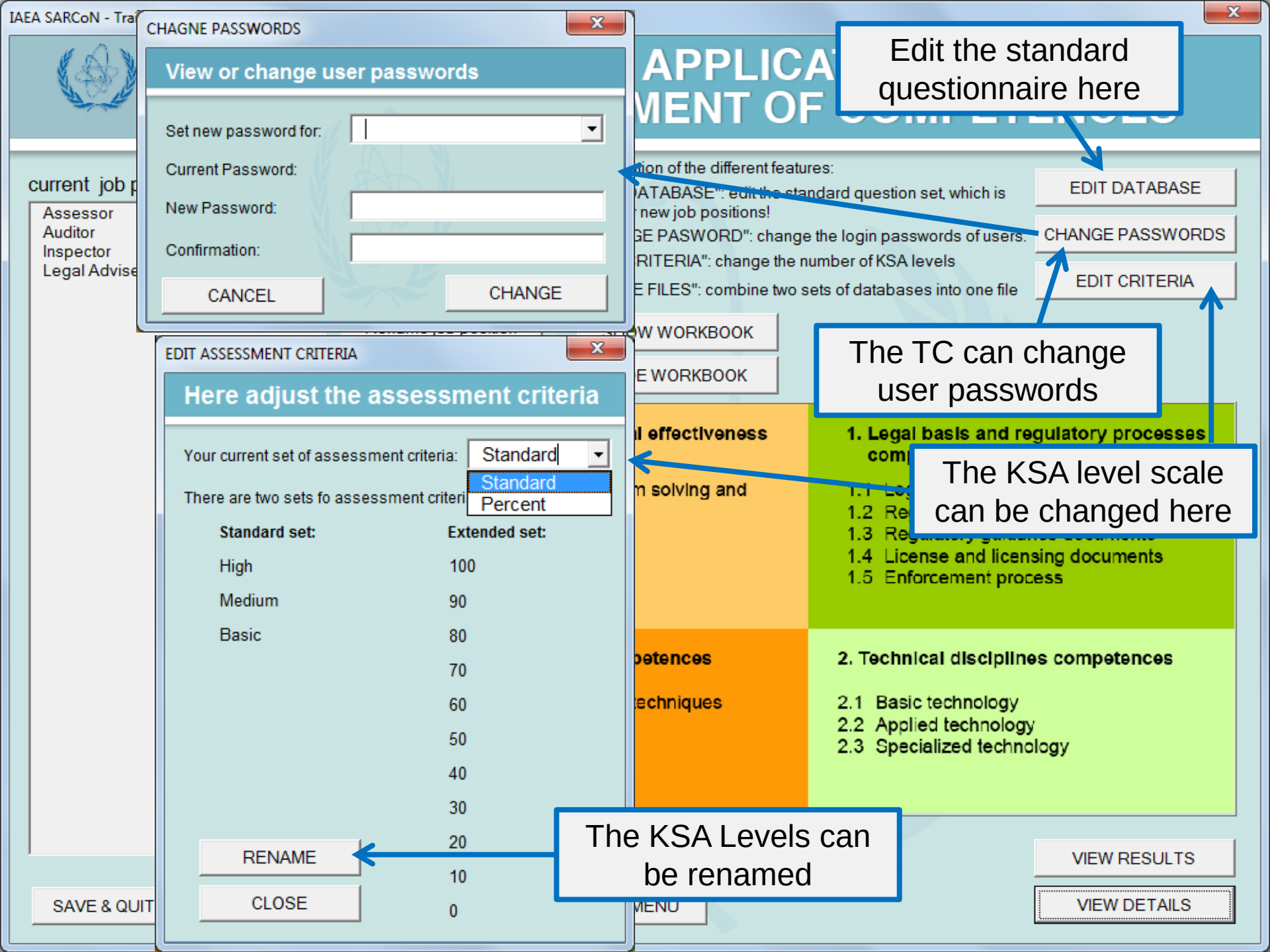
Delete

Insert

Delete

Insert

Delete



CHAGNE PASSWORDS

View or change user passwords

Set new password for:

Current Password:

New Password:

Confirmation:

EDIT ASSESSMENT CRITERIA

Here adjust the assessment criteria

Your current set of assessment criteria:

There are two sets fo assessment criteri

Standard set:	Extended set:
High	100
Medium	90
Basic	80
	70
	60
	50
	40
	30
	20
	10
	0

Edit the standard questionnaire here

- EDIT DATABASE
- CHANGE PASSWORDS
- EDIT CRITERIA

The TC can change user passwords

The KSA level scale can be changed here

The KSA Levels can be renamed



SARCoN APPLICATION TOOL FOR ASSESSMENT OF COMPETENCES



QUADRANT 1 Competences Related to Legal Basis and Regulatory Processes

[Edit](#)

Select the job position:

Inspector

1.1 Legal Basis Competence

This competence is the ability to comprehend, interpret and use relevant documents that establish the legal requirements for obtaining a license, and the powers of the regulatory staff and the limits to these powers.

- High:** In-depth knowledge and ability or work experience to factor in complex relevant legal considerations while performing own regulatory duties or supervising others in their duties.
- Medium:** Full understanding of the basic relationship between the relevant/applicable legal requirements and of subordinates;
- Basic:** Basic knowledge of national nuclear and non-nuclear legislation relevant/applicable to nuclear regulatory activities (e.g. nuclear safety, nuclear/industrial safety, environmental regulations, applicable international commitments, etc.);

The technical coordinator can see and edit both KSAs

No.	KSA	KSA Levels:	
		Required	Existing
1.1.1	Comprehension of the central government's nuclear laws and decrees as well as other laws and decrees that apply to a licensed nuclear facility	Medium	High
1.1.2	Comprehension of the applicability to the nuclear industry of the laws and decrees of the local jurisdictions and authorities	Medium	High
1.1.3	Comprehension and use of the regulatory body's regulations within limits as per interpretations offered by legal counsels and recorded experience	Medium	High
1.1.4	Comprehension of the rights of all stakeholders affected directly or indirectly by the provisions of the legal		



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SARCoN APPLICATION TOOL FOR ASSESSMENT OF COMPETENCES

current job positions:

Assessor
Auditor
Inspector
Legal Adviser

Sort

Refresh

Create job position

Duplicate job position

Rename job position

Delete job position

Explanation of the different features:

"EDIT DATABASE": edit the standard question set, which is used for new job positions!

"CHANGE PASSWORD": change the login passwords of users.

"EDIT CRITERIA": change the number of KSA levels

"MERGE FILES": combine two sets of databases into one file

EDIT DATABASE

CHANGE PASSWORDS

EDIT CRITERIA

SHOW WORKBOOK

HIDE WORKBOOK

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SAVE & QUIT

MAIN MENU

VIEW RESULTS

VIEW DETAILS



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SARCoN APPLICATION TOOL FOR ASSESSMENT OF COMPETENCIES

Results of the Analysis: Select the job position that you wish to view:

VIEW RESULTS

Select a job position
and press VIEW
RESULTS

CLOSE

Average Gaps: Q 1 =

Q 2 =

Q 3 =

Q 4 =

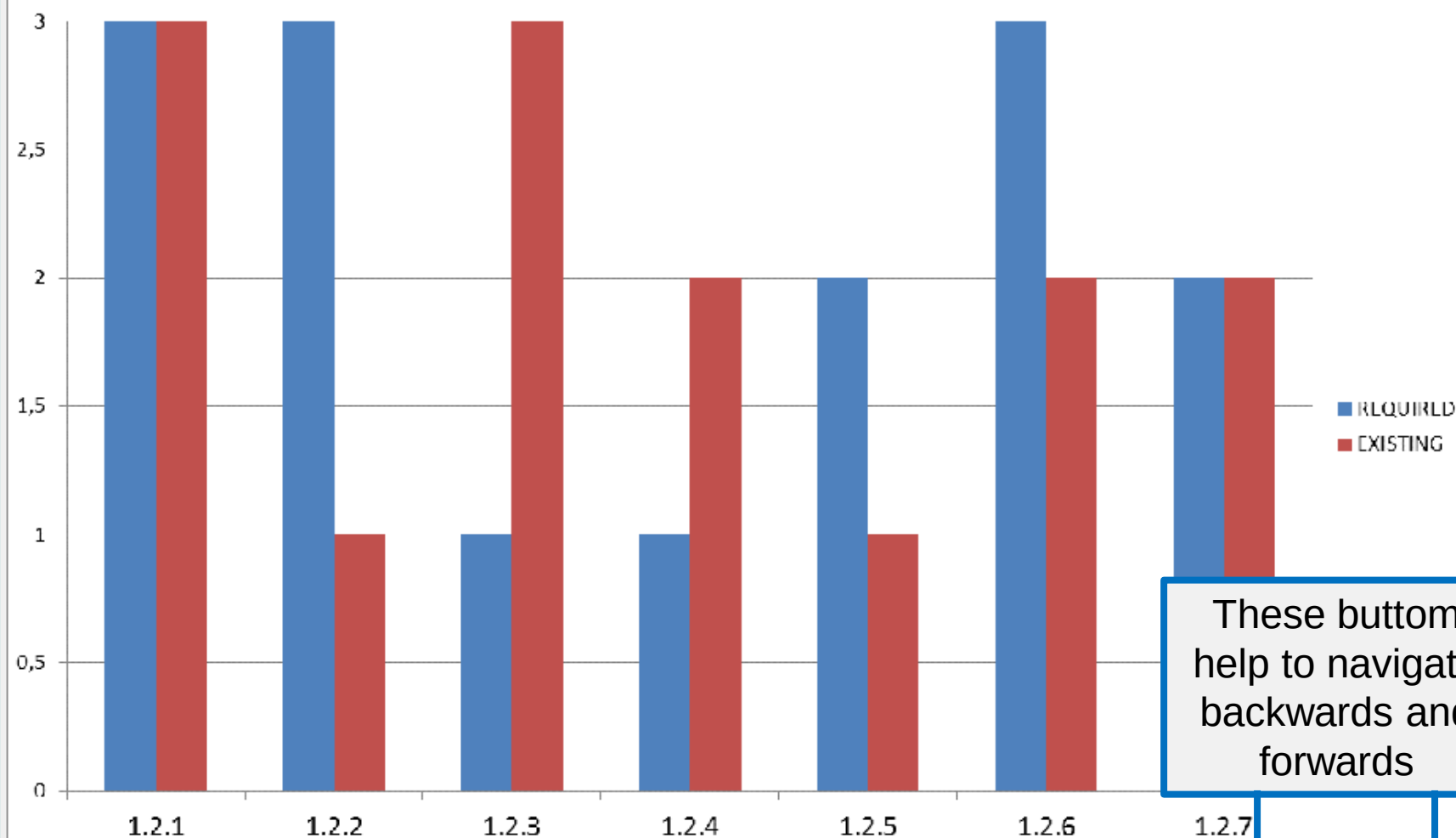


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SARCoN APPLICATION TOOL FOR ASSESSMENT OF COMPETENCIES

Results of the Analysis: Select the job position that you wish to view:

Inspector: QUADRANT 1 - 1.2 Regulatory Process Competence



These buttons help to navigate backwards and forwards

Average Gaps: Q 1 = 1,230769 Q 2 = 1,274725 Q 3 = 1,162941 Q 4 = 0,9891373

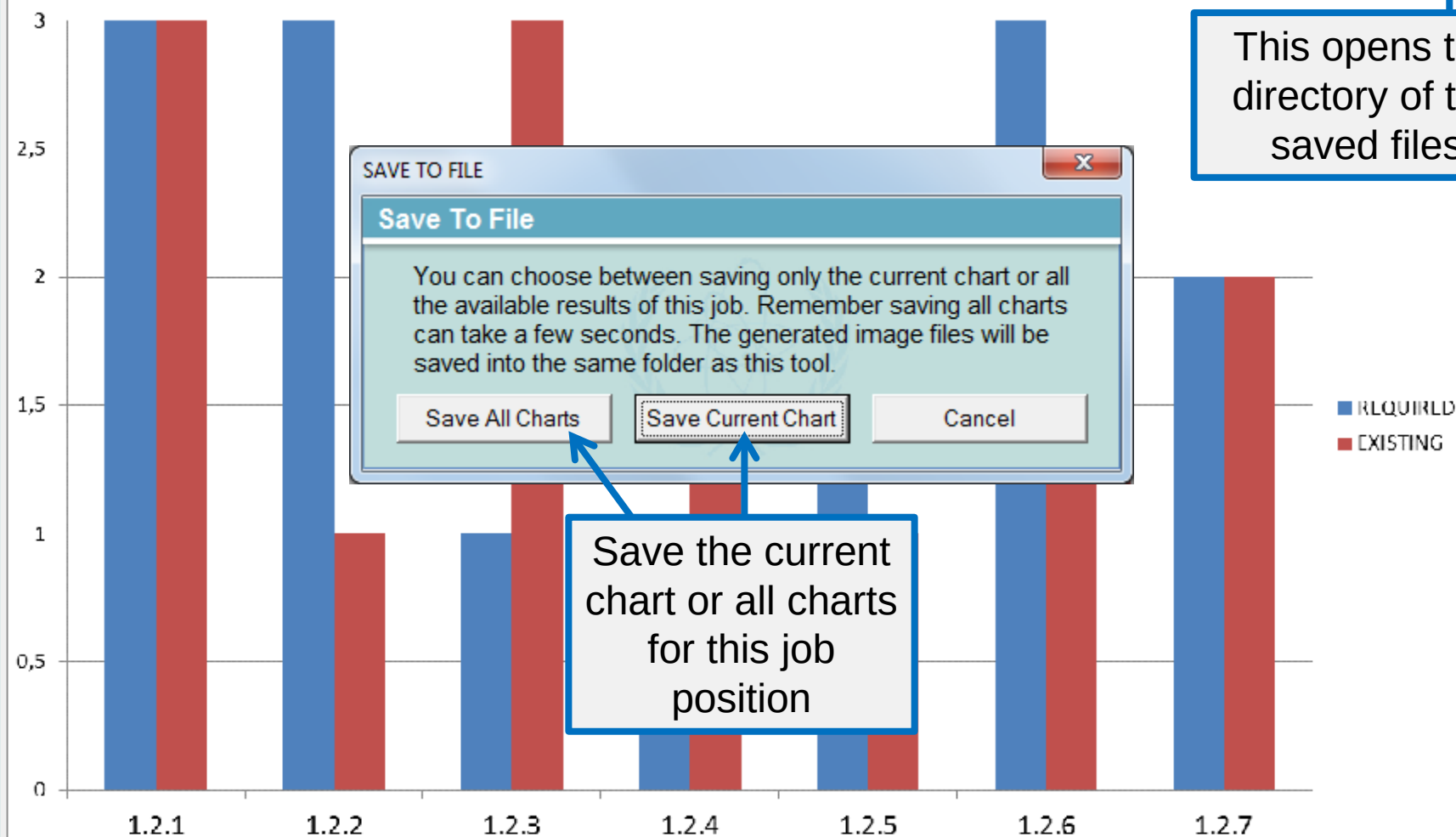


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SARCoN APPLICATION TOOL FOR ASSESSMENT OF COMPETENCIES

Results of the Analysis: Select the job position that you wish to view: Inspector V VIEW RESULTS SAVE TO FILE FIND FOLDER

Inspector: QUADRANT 1 - 1.2 Regulatory Process Competence



SAVE TO FILE

Save To File

You can choose between saving only the current chart or all the available results of this job. Remember saving all charts can take a few seconds. The generated image files will be saved into the same folder as this tool.

Save All Charts

Save Current Chart

Cancel

This opens the directory of the saved files

Save the current chart or all charts for this job position

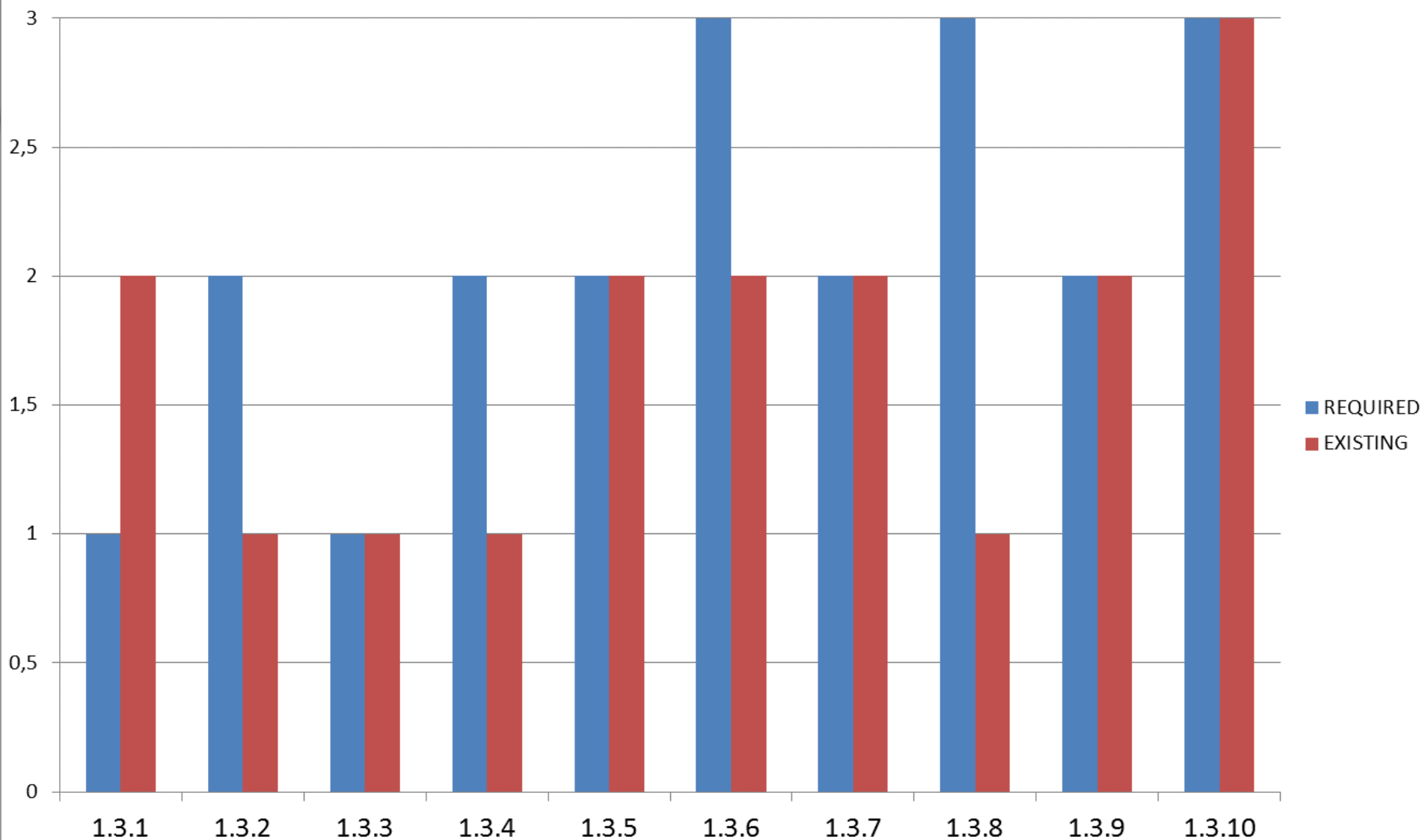
CLOSE

Average Gaps: Q 1 = 1,230769 Q 2 = 1,274725 Q 3 = 1,162941 Q 4 = 0,9891373

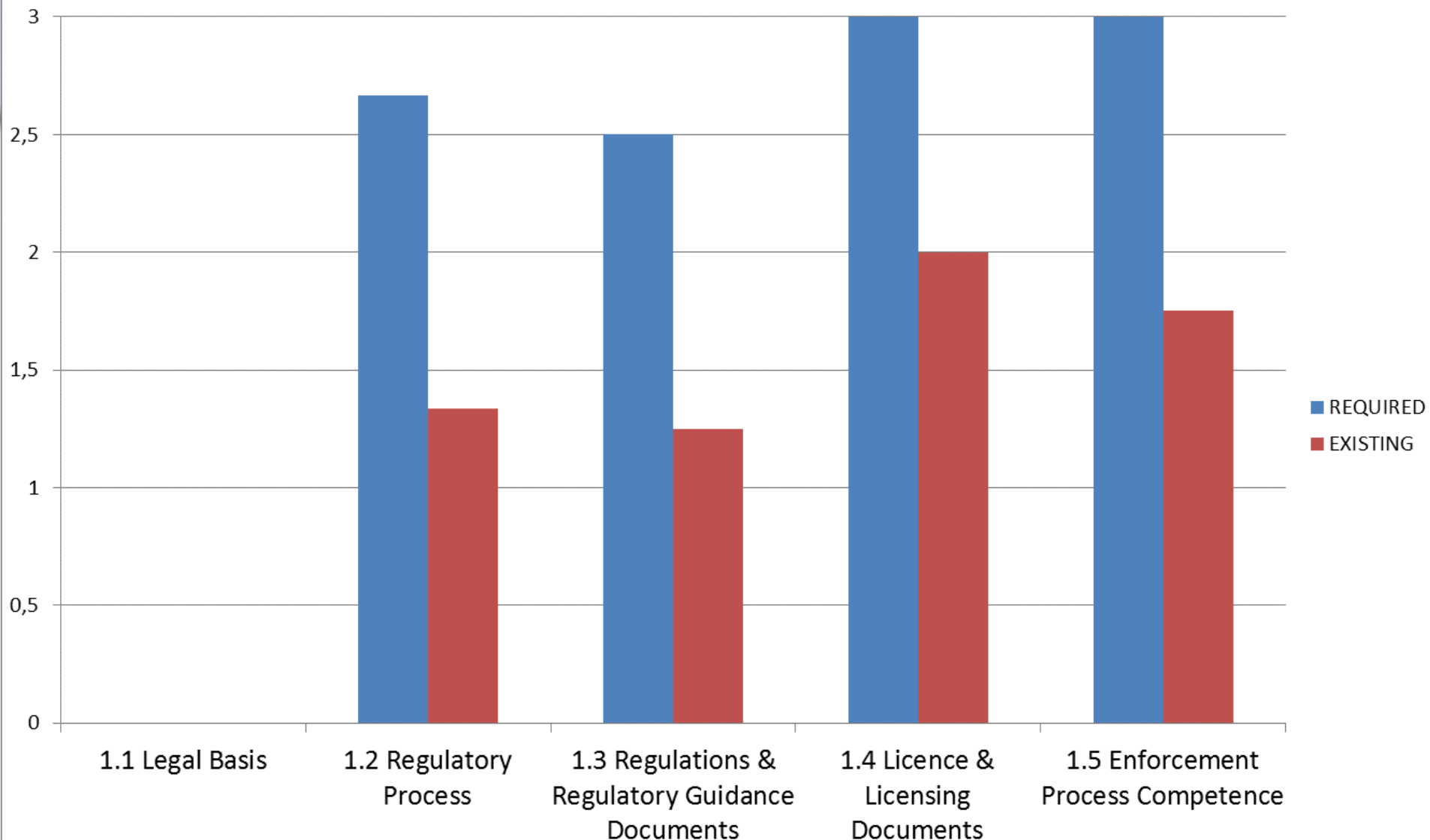
< PREVIOUS GRAPH

NEXT GRAPH >

Inspector: QUADRANT 1 - 1.3 Regulatory Guidance Documents Competence



Inspector: QUADRANT 1 - SUMMARY



Inspector: OVERALL SUMMARY (Average Gap per Quadrant)

